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THE EARLY YEARS IN IRISH MULTIGRADE CLASSES: TRAJECTORIES OF PRACTICE AND IDENTITY.

PhD Thesis submitted to the National University of Ireland, Cork.

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May 2015

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Declaration

This thesis is entirely my own work and has not been submitted for any previous degree at University College Cork or elsewhere.

Candidate: …….

Date: …….

Acknowledgements

Does the road wind up the hill all the way?
Yes to the very end.
Will the day's jouney take the whole day long?
From morning to night my friend
(Christina Rosetti)

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Abstract

This study investigates how the experiences of Junior Infants are shaped in multigrade classes. Multigrade classes are composed of two or more grades within the same classroom with one teacher having responsibility for the instruction of all grades in this classroom within a time-tabled period (Little, 2001, Mason and Doepner, 1998). The overall aim of the research is to problematize the issues of early childhood pedagogy in multigrade classes in the context of children negotiating identities, positioning and power relations.

A Case Study approach was employed to explore the perspectives of the teachers, children and their parents in eight multigrade schools. Concurrent with this, a nation-wide Questionnaire Survey was also conducted which gave a broader context to the case study findings.

Findings from the research study suggest that institutional context is vitally important and finding the space to implement pedagogic practices is a highly complex matter for teachers. While a majority of teachers reported the benefits for younger children being in mixed-age settings alongside older children, only a minority of case study school teachers demonstrated how it is possible to promote classroom climates which were provided multiple opportunities for younger children to engage fully in classrooms. The findings reveal constraints on pedagogical practice which included: time pressures within the job, an increase in diversity in pupil population, meeting special needs, large class sizes, high pupil/teacher ratios, and planning/organisation of tasks which intensified the complexities of addressing the needs of children who differ significantly in age, cognitive, social and emotional levels.

An emergent and recurrent theme of this study is the representation of Junior Infants as apprentices in their 'communities of practice' who contributed in peripheral ways to the practices of their groups (Lave and Wenger, 1991, Wenger, 1998). Through a continuous process of negotiation of meaning, these pupils learned the knowledge and skills within their communities of practice that empowered some to participate more fully than others. The children in their 'figured worlds' (Holland, Lachiotte, Skinner and Caine 1998) occupy identities which are influenced by established arrangements of resources and practices within that community as well as by their own agentive actions. Finally, the findings of the study also demonstrate how

the dimension of power is central to the exercise of social relations and pedagogical practices in multigrade classes.

Abbreviations

BERA – British Education Research Association

DES – Department of Education and Skills

DETR – Department for Environment, Transport and the Regions

DfEE – Department for Education and Employment

EPPE – The Effective Provision of Pre-School Education

GUI – Growing Up in Ireland Study

INTO – Irish National Teachers Organisation

IPPN – Irish Primary Principals Network

MAFF – Ministry of Agriculture, Fisheries and Food

NCCA – National Council for Curriculum and Assessment

OECD – Organisation for Economic Co-operation and Development

OfSTED - Office for Standards in Education, Children's Services and Skills

REPEY – Researching Effective Pedagogy in the Early Years

CHAPTER ONE: INTRODUCTION

1.1 Introduction

In recent years in this country we have witnessed the steady emergence of an early childhood education and care sector. As in other jurisdictions this sector, early childhood, is generally agreed to refer to the years from birth to six. Since Irish children are entitled to enrol in primary schools from the age of four, much of the provision of what is considered to be early childhood education is incorporated in the formal primary school system. Between October 2012 and September 2013, there were 71,778 entrants to the Junior Infant grade in Irish primary schools. Furthermore, the experiences of children's first year at Primary School have been identified internationally as being of significant educational importance for them (Dockett and Perry, 2004; Dunlop and Fabian, 2007; Brooker, 2008). Moving into a new environment and adapting to unfamiliar routines obliges children to develop new and shared understandings of the world. Because of this, primary school teachers have a key role to perform in early childhood education, with almost a quarter of them currently involved in this area of education (Dunphy, 2008).

A significant feature of the Irish primary school system, which is considered in this research study, is the prevalence of multigrade classes within the primary school system. Multigrade classes are composed of two or more grades within the same classroom with one teacher having responsibility for the instruction of all grades within a time-tabled period (Mason and Doepner, 1998; Little, 2001).

1.2 Aims of the Study

This thesis adopts a sociocultural perspective on learning which means the research is concerned with the contexts in which young children learn, how learning varies with social and cultural experiences and the ways in which adults, other children, tools and resources support and shape learning. The sociocultural theories of learning have focussed attention on the influence of contexts in which children learn and the crucial role of adults and peers as mediators of learning (Vygotsky, 1960; 1978; 1987; Rogoff, 1995, 1998, 2003).

My initial aim in undertaking this study was to look critically at how teachers of infant classes in multigrade settings take up the challenge of implementing an early childhood pedagogy. This pedagogy is based on the principles of the curriculum for

infant classes and is thought to be distinct from other pedagogical practices implemented in the primary school. I set out to examine the current state of provision across Ireland and where possible to identify more effective early childhood pedagogical practices in multigrade classes. I sought to explore how the pedagogical work of the teacher shapes the experiences of the children both entering the new and unknown environment and throughout their first year at a multigrade primary school and to investigate how teachers 'shaped' their practice and what this practice looked like in the multigrade classroom.

As the research progressed, I became increasingly aware of the socially constructed nature of learning as a process of increasing participation in a community of practice (Lave and Wenger, 1991; Wenger 1998). Learning in a community of practice is seen as an active process of shared meaning-making involving participation in the experiences and practices of a knowledge community. My focus shifted to how a community of practice may provide more or less equitable positions for participation within it and therefore, how some Junior Infant pupils may be more and some less advantageously positioned in their community. In my research, I consider Junior Infants in the multigrade class as coming to have identities as school pupils where their identity is understood as being incomplete, diverse, contradictory always relational in nature and built and rebuilt in different contexts (Holland, Lachiotte, Skinner and Caine 1998). I investigated how Junior Infant children come to inhabit identities as learners in their classrooms and to understand how these identities might influence or determine what these children could do or say and in what kind of activities and conversations they were allowed to participate.

Holland *et al.'s* (1998) theory of identity focuses attention on figured worlds as sites of possibility but also states that figured worlds are a social reality mediated by relations of power. The figured world of the multigrade classroom brings with it limitations and obligations which are rarely of the children's making but which necessitate that children behave in certain ways. Following on from the study of positional identity, I began to consider the relationships and the activities of the multigrade classroom as being interlinked with systems of power and privilege. Poststructuralists such as Foucault believe that we learn through taking up and using discourse and how we do this is related to our identities and to power. Drawing on the work of Foucault, I aim to examine how children both submit to and exercise power in their relations with adults, peers and older children at school. The resulting analysis

brings together two strands of positioning and power to illuminate how childhood is experienced in multigrade classrooms.

This research is placed within a growing field of study which understands childhood as socially constructed and children as active social agents (James and Prout, 1997). I explore how Junior Infant pupils are active participants in the creation of their own identity positioning themselves and being positioned within varying discourses.

The key research questions which followed from the above considerations were:

1. How are early childhood pedagogical practices enacted by teachers and interpreted by parents/caregivers of Junior Infant classes in multigrade schools?
2. What are the beliefs of teachers in the multigrade class of factors that constrain or support them in their efforts to implement early childhood pedagogy according to the sociocultural principles outlined in the Revised Primary School Curriculum (1999)?
3. How do Junior Infant pupils construct identities as learners in the multigrade classroom?
4. How are Junior Infant pupils positioned by the teacher, peers and older children within the classroom culture of multigrade schools?

1.3 Rationale

There is widespread acceptance that early childhood is an important time for children's learning and that what takes place during this period is not only of critical importance in the child's development but also lays the foundation for lifelong learning (Siraj-Blatchford and Clarke, 2000; Anning and Edwards, 2006; Shonkoff, 2009). Research studies report that the positive impact of early education is found across all social groups but is particularly strong in children from disadvantaged backgrounds. Furthermore, it has been shown that children who receive high quality early childhood education show better cognitive and language abilities than children in lower quality settings (OECD, 2006). Economists also suggest that investment in early childhood education programmes provides long-term economic and social gains (Carneiro and Heckman, 2003; Heckman, 2006).

Research studies suggest that early childhood practitioners play a significant role in the interpretation and delivery of the curriculum. Pedagogically, teachers play

a facilitative rather than a didactic role interacting with children in responsive and informative ways. Teaching in a child-centred way is guiding the learning process, encouraging active involvement of children while providing assistance or clarification if necessary. However, the process of translating research findings into practice is a dynamic and often a very complex process and the aim in this thesis is to bring to the forefront the tensions that exist in pedagogic issues and dilemmas related to supporting the learning of Junior Infant pupils in their first year of school.

Studies of teachers' beliefs and theories reveal that there is a direct link between what teachers believe and what they practice in the classroom (Clark and Peterson, 1986). Spodek (1988) analysed the beliefs of early childhood teachers and argued that in order to understand the nature of teachers' practices in the classroom one must understand the teachers' thought processes regarding teaching and the implicit theoretical systems that underpin such processes.

Internationally, there is increasing concern expressed by commentators of the growing formalisation across early years education (Hatch 2002a, Rose and Rogers, 2012). These concerns are also echoed in the findings of research which highlight difficulties surrounding the implementation of an appropriate curriculum in the first year of the primary school (Adams, Alexander, Drummond and Moyles, 2004; Aubrey, 2004). Specifically in the Irish context, there is also evidence to suggest that there are significant problems relating to the nature of early years practice in infant classrooms (NCCA, 2005; OECD, 2004; Hayes 2003). Murphy (2004), whose study of curriculum implementation in 15 Irish infant classrooms included two multigrade classes indicates that much of the classroom practice observed was teacher-directed and overly didactic. Murphy's (2004) study concludes that, in general, infant teachers are not seen to be providing the types of learning experiences which are considered appropriate for the learning characteristics of young children. In addition, the Inspectorate of the Department of Education and Skills (2005) noted that textbooks 'exerted a dominant influence on teaching and learning in a significant number of classrooms' (DES, 2005, p. 49). These concerns were echoed by Dunphy (2007, 2009) who suggested that the use of Mathematics textbook in infant classes was more prevalent in multigrade classrooms due to the context of many grades working at the same time. The consistent picture of formal, didactic and textbook-led practice in Irish infant classrooms raises questions about the pedagogical processes, and the thinking and planning behind them.

In this country a considerable proportion of primary teachers are working in multigrade classes where young children aged four to six years are educated in classrooms alongside older children. The most recent Department of Education and Skills (2014) statistics indicate that in the school year 2013/2014 there were 600 (19%) schools with 50 pupils or less and a further 751 (24%) schools with up to 99 pupils. All of these schools are likely to be multigrade. The fact that multigrade classes are such a significant feature of the Irish primary school system provides a strong justification for research in this area.

The literature on multigrade teaching is relatively limited (Little, 1995; Mulryan-Kyne, 2007) and may be of poor quality (Mason, Burns, Colwell and Armesto, 1993). A good proportion of the studies available, focus on the cognitive and non-cognitive outcomes of pupils in multigrade classes in comparison with their peers in single grade classes, while other studies (Mason and Good, 1996; Mulryan-Kyne, 2005b) which provide information about teaching practices of multigrade teachers, a focus on early childhood settings is relatively rare. It has been acknowledged that teaching in a multigrade setting can be more challenging than teaching in a single grade setting (INTO, 2003). An increase in diversity among pupils places greater demands on the cognitive and emotional resources of teachers (Galton and Patrick, 1990). For those who teach in the infant classes in the multigrade setting research evidence suggests that there is the additional challenge of providing more open ended learning experiences appropriate for younger children, while also implementing a more formal, subject based curriculum for older children in the same classroom (Britt *et al.,* 2003).

1.4 Area of Study

In order to contextualise the focus of this thesis as presented above, this section provides a brief overview of some features of early childhood education in Ireland. It could be argued that the debate on early childhood education which has taken place over the last decade had its beginnings in the publication of the government's White Paper, Ready to Learn in 1999. Ready to Learn is concerned with the education and care of children from birth to six years. It sets out the core objective of early childhood education as "supporting the development and education achievement of children through high quality early education" (DES, 1999 p. 7).

As the issue of early childhood education has become more important in Ireland, this has resulted in an increased number of reports in the area. The National Children's Strategy: Our children – Their Lives (DHC, 2000) had considerable influence on guiding policy in early childhood education. It outlines a vision of rights of the child in Ireland from birth to 18 years and sets out a series of objectives which highlights a rights-based approach for children to education.

An intensive examination of early childhood education policies and services in the Republic of Ireland was carried out by an OECD review team in 2004. The ensuing report made a number of recommendations which pertained to the quality of early childhood education in Irish primary schools. In particular, the difficulties inherent in providing appropriate play-based learning experiences at infant level without the support of additional adults were highlighted.

In 1999 the Revised Primary Curriculum was introduced having been developed by the National Council for Curriculum and Assessment (NCCA). The primary curriculum is organised in four two-year bands which recognise four distinct stages in primary education. The first of these two-year bands includes Junior and Senior Infant classes for children age four to five and five to six respectively. The 1999 Curriculum characterises learning in terms of traditional subjects and it added a number of subjects areas (for example, Drama, Science and Social, Personal and Health Education) to the existing 1971 Curriculum. This expansion of the Curriculum has created a situation where instruction time for any curricular area is reduced. The Primary School Curriculum provides objectives for children's learning and development for each stage and although these objectives are very clear, they are presented as teacher-focussed inputs. The number of objectives specified has also been the focus of critique in reviews of the Curriculum (DES, 2010).

While it would seem from the introduction to the Primary School Curriculum (1999) that each of the eleven curriculum subjects is afforded equal status, the curriculum does note that 'the particular educational goals associated with literacy and numeracy are a priority of the curriculum' (Introduction Primary School Curriculum, 1999, p. 26). The suggested minimum weekly time framework for all curriculum subjects highlights the prioritisation of literacy and numeracy and in addition, the Literacy and Numeracy for Learning and Life: The National Strategy to Improve Literacy and Numeracy among Children and Young People, 2011-2020 (DES, 2011), introduced to schools in 2011, requires further additional time to be allocated for

literacy and numeracy. The format of the Primary School Curriculum (1999) is that there are two documents pertaining to each of eleven curriculum subjects; one outlining the set of key objectives for each subject and the other giving guidelines to teachers for their implementation.

The Primary School Curriculum (1999) gives precedence to learning processes and emphasises that education should be viewed as an integrated process. The curriculum experience for infant classes is also a more integrated experience, that is younger primary children generally experience subject learning in a more integrated way than older children. The child is seen as an active agent in her own learning and a developmental approach to learning is highlighted. The primary curriculum does note the special nature of early childhood education and the length of the day differs slightly for 'infants' and older children. The introduction to the revised curriculum also has a specific section on early childhood education within which is noted that: 'there is a need for continuing process whereby the child's experience in the infant classes interacts with the developmental experience of home and family' (DES, 1999 p. 7).

The NCCA has led two phases of curriculum review one in 2005 and another in 2008. In both reviews, teachers highlighted time as one of the greatest obstacles of curriculum implementation. Teacher concern focussed on curriculum overload leading them to have insufficient time to meet the needs of all learners in their classrooms. Lack of time was also highlighted in relation to class size concerns as a key challenge to curriculum implementation (NCCA, 2005, 2008). Teachers also reported in the review that in multigrade classes where children differed significantly in age and development, it was difficult to enable all children to contribute equally in some subjects.

The Education Act 1998 deemed it the responsibility of the National Council for Curriculum and Assessment (NCCA) to advise the Minister for Education on 'Curriculum and Assessment of Early Childhood Education'. The NCCA began a consultation process which led to a document, Towards a Framework for Early Learning, published in May 2005. Following its publication there was a period of extensive consultation with a wide range of stakeholders in early childhood education including children, practitioners, parents, training and education institutions and relevant agencies, organisations and government departments and in 2009 Aistear: The Early Childhood Curriculum Framework for children aged 0 - 6, was published.

Aistear is influenced by a sociocultural approach to education which stresses the importance of the social nature of learning and it focuses clearly on supporting adults working with young children. Aistear supports a partnership approach to working with children, together with the need for reflective practice to "empower the adult in his/her role as educator and as learner" (NCCA, 2004, p. 69). The positioning of this partnership approach at the centre of learning experiences signifies a fundamental shift in the view of the child as an active, agentic participant who should be afforded voice and choice from the developmental view which foregrounded the immature, needy child typified in the Primary School Curriculum (1999). Aistear is the Irish word for a journey and is premised on the principle that early childhood is a meaningful life stage and as a time of 'being rather than a time of becoming' (NCCA, 2009, p. 6). It is evident that the language of active learning and play based pedagogies underpin the document. The overall purpose of the curriculum framework aims to ensure that all children have a right to an early childhood curriculum that supports and affirms their learning through exploring their social, physical and imaginary worlds. The principles of 'discovery', 'hands-on experiences' and 'holistic learning' permeate the discourse of the curriculum framework. As Aistear provides a common curriculum framework for all early years settings in Ireland, its introduction has created challenges and dilemmas for teachers in infant classes of primary schools where the Primary School Curriculum (NCCA, 1999a) continues to be in use.

The publication of Aistear (NCCA, 2009) demonstrates that educational policies in Ireland are shifting towards a play-based approach to teaching and learning in the early years of school. However, Hunter and Walsh (2014) noted, the complexities of introducing play as a form of pedagogy and a policy directive in the primary school does pose challenges. In addition, in this country, austerity measures in education and the impact of the global recession have restricted the introduction of practices outlined in Aistear. Nonetheless educational policy is at least becoming more closely aligned with international counterparts like Early Years Foundation Stage in England 0-5 year olds (Department for Education, 2007) and the Scandinavian countries (Pramling-Samuelsson and Carlsson, 2008).

1.5 Outline of Study

Chapter Two introduces the broad strands of sociocultural theory and identity formation. The aim of this chapter is to examine the sociocultural perspective on learning which emphasises not only the interactive process between teacher and learner but is also concerned with the relationship between this practice and the cultural, institutional and historical context in which it occurs. It considers how the child is as an active participant in a community of practice and examines the ways in which learning is deeply embedded in an individual's becoming part of the community through participation in socially organized activities or practices. Also highlighted is some poststructuralist theory which also informs the research.

This is followed by Chapter Three which reviews the research on multigrade classes. The chapter commences by tracing the historical context and prevalence of multigrade education both in Ireland and internationally. Next, it examines the forms of pedagogy and curriculum organisation most commonly found in multigrade classes. Finally, Inspectors' Reports of Whole School Evaluations, provide a necessary official policy context for the research. These reports are examined to investigate the extent to which evaluations of and advice on issues of multigrade teaching and teaching in the infant classes of multigrade schools is provided.

Chapter Four of this study is the research design and the main aim is to outline the concurrent triangulation mixed-methods design (Creswell, Plano Clark, Gutmann and Hanson, 2003) in which both qualitative and quantitative data were collected and analyzed to inform the research findings. The major methodology adopted for the research was Case Study because it offered a strategy for doing research which involved an empirical investigation of a particular contemporary phenomenon within its real context using multiple sources of evidence. The chapter also contains discussions of the explicit paradigmatic orientations of the study and the various tensions which arose throughout.

Chapters Five and Six contain the presentation and analysis of data collected. There are three separate but related sections in Chapter Five. Section One presents case study reports of two schools particularly selected as they exemplified two extremes in approach towards pedagogy in multigrade classrooms. In Section Two of this chapter, a cross case analysis is presented of all eight case studies. Four key themes were identified for discussion. The themes were concerned with: pedagogical interactions that took place between practitioners and children; how Junior Infants

negotiated participation in their classrooms; collaboration of younger and older children in their classroom activities; and the community of practice which was seen to emerge across the settings. The third section of the chapter presents the findings of a nationwide questionnaire survey which are then compared and contrasted with the case study findings.

Chapter Six moves into a more detailed thematic analysis of the data. Data analysis in this chapter is concerned with the nature and dynamics of the interactions between children and their classmates and between the teacher and the children enabling us to see how mutual involvement is experienced in everyday school life. This is discussed under three key themes, namely: 'Apprenticeship and Agency: Challenge and Complexity', 'Identity and Belonging: Belonging and Identity?' and 'Power and Positioning'. The first key theme 'Apprenticeship and Agency: Challenge and Complexity', considered the dynamic relationships between the activities of Junior Infants in the communities and institutions where they occurred. The second theme Identity and Belonging: Belonging and Identity?' brings the focus on examining the particular identity constructions of the pupil participants involved in this study, while the analysis presented in key theme 3, 'Power and Positioning', illustrates how the dimension of power is central to the exercise of social relations and pedagogical practices in multigrade classes.

The final chapter of this thesis, Chapter Seven is the concluding chapter where I attempt to draw the various strands of the study together. This final chapter discusses the key findings emerging from the study and considers the implications for pedagogical practice and policy in the early years of primary school.

CHAPTER TWO: YOUNG CHILDREN LEARNING: A SOCIOCULTURAL PERSPECTIVE

2.1 Introduction

Recent debate on early childhood education has been centred on theoretical issues that foreground the cultural and socially-constructed nature of learning (Anning, Cullen and Fleer, 2004). This chapter begins with an overview of key concepts of sociocultural theory relevant to this study. A sociocultural perspective on pedagogy emphasises not only the interactive process between teacher and learner but is also concerned with the relationship between this practice and the cultural, institutional and historical context in which it occurs (Wertsch, 1998). The collaborative processes involved in interactions between the child and more knowledgeable other (Vygotsky, 1978) and how the child's participation in collaboration leads to transformation of participation in the cultural activities of their communities are reviewed (Rogoff, 1998).

In the second section of the chapter approaches to early childhood pedagogy consistent with sociocultural theory are described including the notion of the individual learner as an active participant in a community of practice (Wenger, 1998). The literature reviewed in this section explores some implications for how individuals' identities are variously produced, valued and transformed in these communities. The concept of 'figured world' (Holland *et al*, 1998) which is explored recognises that some participants have more access to and more experience in the use of mediating means than others and therefore, some participants are more and some less advantageously positioned in their community. Consideration of the relationships of the activities of the figured world with larger discourses of power (Foucault 1977, 1980, 1984) confers further depth to the study of identity in classrooms.

In the final section of the chapter,

I aim to explore how the theoretical framework presented in the earlier part of the chapter has implications for how pedagogy is understood and practised in early childhood settings. In particular, notions of how curriculum and classroom contexts are organised and enacted are foregrounded and several themes including learning through play, inclusion of pupils with special educational needs, class size effects and gender are considered.

2.2 A Sociocultural Theoretical Frame

The sociocultural approach to understanding learning that frames the research is presented in this section. Sociocultural theory relates cognitive development to participation in culturally historical activity (Rogoff 2003, Wertsch 1985) and therefore can provide valuable insights into how young children learn. The section first explores the historical foundations of sociocultural theory. Next a contemporary sociocultural perspective on early learning is offered and critical themes which inform the researcher's theoretical lens are identified and discussed.

Although sociocultural perspectives have recently been foregrounded as a prominent theory of learning in early childhood education, the roots of the theory are to be found in the sociohistoric epistemologies of Hegel and Marx. According to their view, the mind has its primary origin in the social and material history of the culture which a person inhabits. The essential core of sociocultural theory is that learners actively construct their own knowledge in relation to the social, cultural and physical contexts in which they find themselves. In addition, learners use the intellectual tools that they have developed in these contexts and which have been passed down from previous generations.

The most well-known of the early sociocultural theorists was Vygotsky who understood learning as a social and cultural, rather than an individual phenomenon. Vygotsky's (1987) approach to learning is based on three main concepts. These are:
(1) That individual development has its origins in social sources; (2) that human activities are mediated by tools and signs; and (3) that discoveries are transmitted primarily *via* institutions of which schooling is one of the most important. During his short lifetime Vygotsky (1978, 1987) developed his core thesis in a variety of different areas. Within the area of child development and educational psychology, he explored the relationship between language and thought and instruction and development. Vygotsky's sociocultural theory continues to provoke debate about the social and cultural nature of learning and a new group of theories which may loosely be termed as 'Neo-Vygotskian' have emerged. In this context three aspects of sociocultural learning which are particularly relevant to this inquiry are discussed in the following section. These aspects include: learning as a collaborative process, learning as a transformation of participation and learning as a community of practice.

2.3 Learning as a Collaborative Process

One of the most fundamental concepts of sociocultural theory is that the human mind is mediated (Vygotsky, 1978) and that humans use cultural tools (both material and psychological) to mediate and regulate relationships with others and with themselves and thus change the nature of these relationships (Rogoff, 1998). These tools are artefacts created by human cultures over time and are made available to succeeding generations, who in turn modify them before handing them on to future generations. Numbers and arithmetic systems, music, art and language are included among the tools that help the child to structure her thinking. Of these culturally mediating tools, it is generally agreed that the most important is dialogue. This type of dialogue occurs in purposeful linguistic interaction with others and is interactive, constructing meaning as each partner strives to view matters as the other person may also view them (Wells, 1992).

Vygotsky (1987) argued that language plays a key role in learning, providing the means both for coordinating action and for thinking together and thus, he saw language as central in the development of humans 'higher mental functions' (the development of abstract thought). Vygotsky (1978) believed that development moves from the social to the individual. He argues that all higher mental functions are seen twice in the life of the child: first on the intermental plane in which the operation of the activity is distributed across persons, places and things and subsequently on the intramental plane where learning takes place because the individual has transformed the external interaction to a new form of interaction that subsequently guides actions. Thus:

> *'Both planes of development – the natural and the cultural coincide and mingle with each other. The two lines interpenetrate one another and form a single line of sociobiological formation of the child's personality'* (Vygotsky, 1960, p. 17).

The child is inducted into cultural ways of thinking and behaving through communication with more capable members of the community and then moderates new learning in terms of her personality and former experience to personalise this knowledge. Thus, children learn to belong within the ways of their community and this learning consequently guides their further development.

In an attempt to explain how social and participatory learning occur, Vygotsky created the metaphor of the zone of proximal development (ZPD). This metaphor,

originally proposed by Vygotsky as a way of relating the process through which formal schooling impacts on intelligence, has perhaps become one of the most famous and widely adopted construct of the theory (Berk and Winsler, 1995). For Vygotsky, therefore, there was a dynamic interdependence between social and individual processes. ZPD he explained as the 'gap' that exists for an individual between what he can achieve alone and what he is able to do with the help of others and defined it as

> *The distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.* (Vygotsky, 1978, p 86)

The ZPD is a window of opportunity for the adult or more competent peer to enter into a child's thinking enabling her to move forward developing higher mental processes. The adult or more competent peer allows the child to make conscious what she already knows and can do. They then create learning experiences which build and extend a child's learning capacity. These experiences are challenging but still within reach of the child's capabilities. In other words the child is led ahead of her development. Bowman, Donovan and Burns (2001) describe it as a structuring of the interaction to guide children through tasks which are just beyond their capabilities.

The role of the adult or more competent peer is to provide guidance and instruction, as well as to provide experiential support for the child's development of concepts. Thus, sociocultural theorists argue that the interactions between adults or more competent peers and children are crucial for children's cognitive development. Several aspects of the collaborative process which are believed to be particularly important including scaffolding and co-construction as well as the development of intersubjectivity are discussed next.

'Scaffolding' and 'co-construction' are terms which have become associated with facilitating children's learning within their ZPDs and are specifically related to adult child interactions. The term 'scaffolding' is used widely within early childhood literature (e.g. Berk and Winsler, 1995; MacNaughton and Williams, 2004; Jordan, 2004) while other terms such as 'guided participation' (Rogoff, 1990) and the establishment of a 'construction zone' (Newman, Griffin and Cole, 1989) describe similar processes. Scaffolding is a term that has become almost synonymous with the Vygotskian concept of ZPD although the two concepts developed independently of each other. Scaffolding encompasses multiple pedagogical techniques which enable

the child to gradually function at an independent level. For example, open-ended questions, modelling appropriate responses or joining in children's play were found to be effective scaffolding strategies used by teachers in early childhood programmes (Siraj-Blatchford, Sylva, Muttock, Gilden, and Bell, 2002). Wood (1998) emphasises the crucial moments in the scaffolding process. Teachers need to locate and work at the upper levels of a child's zone of proximal development allowing a certain amount of struggle but not so much that the child is frustrated. As soon as the child is experiencing difficulty with the task, the tutor must offer help and equally importantly, must withdraw the help as soon as the child can manage the task alone. The ultimate aim of the scaffolding process is to transfer responsibility for learning from the teacher to the child so that she can work with an increasing degree of autonomy (Good and Brophy, 2008.).

In the area of early childhood education, scaffolding children's learning is thought to be particularly effective when carried out in conversational contexts (Goouch, 2008) where the teacher 'nudges' rather than directs. Everyday activities provide the backdrop for shared experiences where talk is the key feature and the level of interaction which exists between the teacher and the child is one of intimacy. The teacher has an intuitive and explicit knowledge of the child and the level of support he requires at that particular moment (Wood, 1998; Payler, 2007). Similarly, Mercer (1995) suggests that the creation of shared knowledge in collaborative group work is a social activity and centres on the construction of new knowledge rather than the pooling of information which the children already possess. Within small groups there is an opportunity for 'multi-tiered' scaffolding to occur (Cumming-Potvin, Renshaw and van Kraayenoord, 2003, p. 62)

Working within the child's ZPD is seen to be a complex task and the key challenge for educators becomes one of defining the limits of the zone, matching or tuning in the support they give to the child. This calls for considerable knowledge and skill on the part of the educator, as well as close observation and assessment of the child (Wood and Attfield, 2005). The curriculum is believed in such instances to emerge from an intimate knowledge of the children and community (Nimmo, 2002).

Scaffolding is seen by some researchers as an adult-directed interaction, where the adult is in control of the discussion and leads the activity with the aim of meeting a pre-set objective (Jordan 2004). Bruner (1996) widens the concept of scaffolding to make it more powerful and effective as a tool in education. Essentially,

Bruner (1996) argues for a move away from scaffolding as explicitly didactic instruction in the adult-child interchange to an increased emphasis on an active role for the child and a concentration on the emotional aspects of the relationship between the child and others. Rogoff (1998) also emphasises the role of the child as an active participant in their own social development and she argues that young children appear to naturally possess ways of ensuring involvement with more experienced members of society and of becoming more involved in their cultural environments. However, Rogoff (1995) does suggest that the adult needs to guide children in that participation. She explains the term guided participation as

> *The processes and systems of involvement between people as they communicate and co-ordinate efforts while participating in culturally valued activities. This includes not only the face-to-face interaction, which has been the subject of much research, but also the side-by-side joint participation that is frequent in everyday life and the more distal arrangements of people's activities that do not require co-presence… The 'guidance' referred to in guided participation refers to observation, as well as hands on involvement in an activity* (Rogoff, 1995 p. 60).

Rogoff (1990), emphasises that in sociocultural models, the child takes an active, inventive role and reconstructs the task through their own understanding. Her view of sociocultural theory emphasizes the 'dual-agentic' nature of learning, that is, the learner and teacher engage in co-constructing the socio-cultural realm (Silcock, 2003). The term 'co-construction' implies that knowledge is constructed jointly between participants. In order to co-construct meanings, children occupy a powerful place in their own learning because they are recognised as active, valued participants who can predict and interpret experiences in their world in a variety of symbolic ways (McNaughton and Williams, 2004). The discursive nature of sociocultural learning environments allows children and adults time to talk and the mutually reinforcing nature of open-ended, exploratory talk also provides opportunities for learners to scaffold their own understandings.

Co-constructing meaning remains a challenging way of working with young children as it provokes early childhood practitioners to question the perceptions of children and how these perceptions impact on interactions with children. The child as co-constructor conjures an image of an 'actor in society' (James and Prout, 1997). Within co-constructed activity the child's own expertise is acknowledged as being as valid as the adults and she is capable of acting on her social world and articulating

experiences in a variety of ways. Blumenfeld *et al*., (1992), for example, suggest that in the area of science in particular, children who were encouraged to research and make sense of their own world, improved their ability to relate scientific concepts to their everyday experiences and reported higher levels of motivation to learn.

Adult-child interactions when examined from a sociocultural perspective place a clear emphasis on a reciprocated process of understanding which progresses throughout and beyond the activities within which participants are involved. Participation in activities leads to a shared understanding which is termed intersubjectivity. Rogoff (1998) argues that collaboration involves more than simply working with others. It requires a sharing of thinking by participants on the meaning and goals of a joint activity and is characterised by the ability of individuals to work within a community frame of reference. Interactions which involve intersubjectivity show that children use higher-order cognitive strategies and metacognitive approaches when they work with an adult. In other words, there are conceptual advances which take place within collaborative interactions which are the results of the partners communicating and talking with one another.

Pedagogical models for child interaction in small cross age groups are also grounded in sociocultural perspective. The teacher can promote diverse communicative spaces in the classroom thus facilitating different perspectives to impact on classroom interactions. An example of these models includes 'reciprocal teaching' (Palinscar and Brown, 1984). Reciprocal teaching is a guided reading comprehension strategy that encourages pupils to develop the skills that effective readers and learners do automatically. Key features are summarising, questioning, clarifying, predicting and responding to the reading text. The use of these strategies may be realized in small group situations in which the younger children are first scaffolded in interactions and when the children become more experienced in participating and leading discussion support is gradually withdrawn. Knowledge is co-constructed and the children are positioned as learners in the mediated process of entering the practices, values and ways of knowing of the broader community that is provided in the interaction. The teacher's participation in the interactions of small groups includes promoting collective responsibility for active participation and emphasising also the socio-emotional processes which children benefit from in cross age interaction (Kumpulainen and Wray, 2002; Kovalainen, Kumpulalainen and Vasama, 2002).

In contrast to pedagogical models such as reciprocal teaching classroom interaction often takes place in the form of a three-part exchange in which the teacher poses a question, a pupil is chosen to answer and the teacher evaluates the pupil's response. Known as Initiation-Response-Feedback (I-R-F) this pattern can continue over many exchanges with little connection between them (Sinclair and Coulthard, 1975). IRF has been criticised because it is thought to limit meaningful participation of pupils. Teachers have the right to initiate speech, to distribute and evaluate children's replies, whereas the children have much more restricted opportunities to ask questions and negotiate meanings (Cullen, 2002). Similarly, Siraj-Blatchford and Manni (2008) found that by asking mostly factual questions with predetermined answers means that teachers may miss opportunities for supporting learning.

This section has explored how sociocultural views focus on collaboration particularly the interrelationship between the more knowledgeable other (adult or expert peer) and learner, the environment and joint interpretations of learning tasks. While the concepts of scaffolding and ZPD provide useful insights into the process of teaching and learning in the classroom, the reality of early education settings which is rarely of an adult working one-to-one with a child for any length of time suggests that this view of social learning alone may be too narrow for this research study.

There is also a call by some socioculturalists to give greater consideration to the process of collaboration in other sociocultural activities beyond that of working with a more capable other in situations that are largely designed for instruction (Lave and Wenger, 1991). Lave and Wenger (1991) have critiqued Vygotsky's interpretation of learning as a social and cultural process saying that it does not take account of the place of the wider context of the social world and exists only in a "small aura of socialness that provides input for the process of internalization viewed as individualistic acquisition of the cultural given." (Lave and Wenger, 1991, p. 48) and call for extending the study of learning beyond internalisation to learning as increasing participation in communities of practice concerning the whole person acting in the world. This latter concept is discussed below.

2.4 Learning as Transformation of Participation

The term 'participation' in sociocultural literature is often promoted as a way of describing learning which not only refers to engagement in activities with other

people, but to a more holistic process of being an active participant in the practice of the local community and constructing identity in relation to these communities. The sociocultural perspectives of Rogoff (1995, 1998, and 2003) and of Lave and Wenger (1991) receive particular attention in this section, as it is these that are foundational to the focus and analysis of this research study.

Observations of learning, Rogoff (1998) suggests, are made by using one of three planes of analysis. Each plane, community, interpersonal and personal focuses on one aspect of participation in activity. These correspond with apprenticeship, guided participation and participatory appropriation. Rogoff (1995) maintains that development occurs in all planes, for example, children develop but so too do their partners and cultural communities. However, she argues that it is incomplete to consider 'the relationship of individual development and social interaction without concern for the cultural activity in which personal and interpersonal actions take place' (Rogoff, 1995, p. 141).

The community or apprenticeship plane focuses attention on active individuals participating with others in culturally-organised activities. The metaphor of apprenticeship as a model for children's cognitive development is used by Rogoff (1990) to highlight that the child is active and engaging with learning and is also assisted by the guidance of a community of people who provide support to direct the child's increasingly-skilled participation in activities valued in their culture. The term 'intent participation' (Rogoff *et al.,* 2003, p. 176) is also used to express the notion of young children observing and listening in on others as they collaborate in shared activities in fluid and complementary roles. Observing is a key feature of participation as apprenticeship, where intent participation is described as 'keenly observing and listening in anticipation or in the process of engaging in an endeavour' (Rogoff *et al*. 2003 p. 178)

The interpersonal or guided participation plane focuses on 'the mutual involvement of individuals and their social partners communicating and coordinating their involvement in socioculturally structured collective activity' (Rogoff, 1995, p. 146). Rogoff (1995) uses the term guided participation to emphasize the mutuality of individuals and their social partners as they communicate and collaborate through participation in collective activities. These activities include face to face or distal interactions where participants may be involved with familiar people as well as people who are distant or unknown.

The personal or participatory appropriation plane centres on individuals transforming their understanding and responsibility for activities through their own participation. Rogoff (1998) suggests that children's participation in communicative processes is the foundation on which they build their understanding and that rather than taking or being given knowledge from an external model, people learn through transformation of participation in sociocultural activities. The transformation of participation is considered to be a dynamic process where a person acts on the basis of previous experience and the present activity is prepared for and shaped by what has happened in previous events. A person changes through participation in an activity, and this transformation contributes both to the activity at hand, but also acts as a preparation for similar events in the future. Therefore 'individuals change and handle later situations in ways prepared by their own participation and changing responsibility in previous activities' (Rogoff, 1998, p. 691). From this perspective then, development is viewed as a cultural process that involves people's changing participation in the cultural activities of their communities.

Sociocultural learning theories thus see learning as going beyond knowledge construction or acquisition, and instead as an 'integral part of generative social practice in the lived-in world' (Lave and Wenger, 1991, p.35). Learning is conceptualised as a process of becoming, where the learner increasingly identifies with a particular community and learns to participate more fully in its practices. The way in which the child's learning comes about in a community and the implications of this for an understanding of formation of identity is the focus of the next section of this thesis.

2.5 Learning in a Community of Practice

The metaphor of learning community has been used widely in all education sectors to denote a sense of belonging and shared purpose among a group of people (e.g. Brown and Campione, 1998). For example, concepts such as 'community of practice' (Lave and Wenger, 1991, Wenger, 1998) and 'community of learners' (Rogoff, Matusov and White, 1996) foreground the ways in which learning is deeply embedded in an individual's becoming part of the community through participation in socially organized activities or practices.

A community of practice according to Lave and Wenger is a 'set of relations among persons, activity, and the world, over time and with other tangential and

overlapping communities of practice…. an intrinsic condition for the sharing of knowledge' (Lave and Wenger, 1991, p. 98). It is understood that 'communities of practice' are everywhere and humans can be involved in several of them throughout their lives. They may belong to a community of practice at work, school, and home or in civic or leisure interests. Although the characteristics of such communities vary, members are brought together in the same way that is by engaging in joint enterprises sharing particular goals and values. Furthermore, they have similar ways of thinking and describing the practices of the community and share a system of patterns of conduct which can shift and change.

A situated learning theory proposes that learning is essentially a socially-situated activity (Lave and Wenger, 1991). Rather than looking at learning as the acquisition of knowledge in an individual cognitive system, a situated theory of learning views learning as a process of increased participation in a community of practice. Learning in a community of practice is seen as an active process of meaning making involving participation in the experiences and practices of a knowledge community. Participation 'refers not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities' (Wenger, 1998, p. 4). Communities of practice are characterised by learning that happens within the social context of interaction in a shared practice. Wenger (1998) describes four elements that characterise social participation as a process of learning within a community of practice

- Community (learning as belonging),
- Practice (learning as doing),
- Identity (learning as becoming)
- Meaning (learning as experience).

These four elements combine together to describe learning as a process of shared meaning making and changing identity as learners become more accomplished in the ways of the community of practice. It is the practice within a setting and the interaction with others that shape the identity of an individual child. Modes of belonging are closely connected with identity. The outcome of the practice is that the

child begins to construct an identity where she has a sense of belonging in relation to the values and goals of the community in which she is located.

Central to the theory of learning in communities of practice is the concept of the learner as newcomer in legitimate peripheral participation. Lave and Wenger (1991) see legitimate peripheral participation as an apprenticeship process by which newcomers become part of the community of practice. The term 'community of practice' was originally developed from ethnographic studies of apprentices (Lave and Wenger, 1991). The concept of apprenticeship in a theory of learning highlights that the child is active in engaging with learning but is also assisted by the guidance of a community of people who provide support to direct the child's increasing skilled participation in activities valued in their culture.

> *From a broadly peripheral perspective, apprentices gradually assemble a general idea of what constitutes the practice. This uneven sketch of the enterprise (available if there is legitimate access) might include who is involved; what they do; what everyday life is like; how masters talk, walk, work and generally conduct their lives; how people who are not part of the community of practice interact with it; what other learners are doing; and what learners need to know to become full participants*. (Lave and Wenger, 1991, p. 95)

Newcomers or apprentices initially learn at the periphery of the community where the more important tasks are performed by the oldtimers or masters. Gradually contributions by the novices become more complex and important and as they become more experienced in the ways of the community they progress from legitimate peripheral participation into full participation (Lave and Wenger, 1991). Thus learning is seen as developing expertise in the practice itself, but also developing understanding of and embeddedness in the culture that surrounds it. On a certain level, newcomers and oldtimers are dependant on one another, as newcomers want to learn and oldtimers want to continue with the community of practice. However, Wenger's (1998) notion allows for conflict between community members as established practices are challenged by others and there is also a certain tension that is fundamental to the process of legitimate peripheral participation as oldtimers must be replaced by newcomers as newcomers eventually move to full participation. Linehan and MacCarthy (2001) warn against assuming that the community of practice is a relatively straightforward construct and point to the need to pay particular attention to

the very complex nature of the relationship between individuals and communities, which contributes to shaping the social practices in which learning is situated.

Lave and Wenger (1991) also highlight the nature of the transformations that occur in the process of legitimate peripheral participation. On one level, the community of practice itself changes as oldtimers are replaced by newcomers and newcomers also change as they negotiate and renegotiate participation. Thus, learning can be seen as increasing participation in the community of practice but also as a process of social and personal transformation in that community.

Critical to Lave and Wenger's (1991) analysis is their recognition of multiplicities of participation, that there 'may well be no such simple thing as central participation in a community of practice' (Lave and Wenger, 1991, p. 35). Rather participation is socially constructed, intertwined with the negotiated processes of membership and practices of the community. In this way participation is defined as a way of belonging, where belonging is 'not only a crucial condition for learning but also a constitutive element of its content' (Lave and Wenger, 1991 p. 35).

A primary focus of Wenger's (1998) work is on learning as social participation – the individual as an active participant in the practices of social communities, and in the construction of her identity through these communities. The classroom is a particular kind of community where learner identities can be studied in terms of how learners are assigned and take up identities.

2.6 Developing Identity as a Learner

For the conceptualization of learner identity the notion of identity must serve as a starting point. The construct of identity has been defined and conceptualised by a range of theorists from varying traditions and disciplines. Briefly, three views of identity seem to be specifically dominant: (1) psychological/developmental; (2) sociocultural and (3) poststructural.

The most significant feature of the psychological/developmental perspective is the focus on the individual. The development of an identity is seen as largely a cognitive process and as something that takes place within the child, even though the child may be actively engaged with the environment. Understandings of social categories, such as those relating to identity, are considered to form relatively late by Piaget (1954) because they are seen as requiring understandings about self and other that do not develop until middle childhood. This is very much in keeping with stage

theories of development where first one thing has to happen in order to enable another. Within the psychological domain, research in identity formation has focussed largely on the work of Erikson and interpretations of this work have foregrounded the notion of an individual's capacity to build an identity for oneself.

However, Erikson (1980) developed his theory to suggest that identity is also developed as a result of social interactions in our capacity to resolve a series of psycho-social crises that are essential to identity formation and that this process is multilayered and concerned with the individual, group and the point in time. Indeed Penuel and Wertsch (1995) suggest a powerful supporting position for sociocultural development within the work of Erikson arguing that by integrating Erikson's theory within the sociocultural field, there is a blurring of the 'individual functioning and sociocultural processes into a kind of mediated-action approach to identity formation' (Penuel and Wertsch, 1995, p. 88). They contend that the Vygotskian sociocultural view of identity formation can complement the psychosocial view of identity formation theory pioneered by Erikson.

From a sociocultural perspective, developing personal identity is considered an active process, rooted in an individual's multiple activities and relationships. Within a cultural historical activity framework, cultural tools mediate the individual and the group and are seen as the key which unlock the complex relationships between the psychological and the social. Essentially, the term 'mediated action' exemplifies how a person uses 'mediational means' or 'cultural tools' as resources for performing the self. Cultural tools are both wide-ranging and eclectic and include symbol systems (such as language, words and forms of discourse), artefacts and social practices (such as rituals). Learner identity is understood as a psychological tool in the Vygotskian sense, in that it is a social artificial formation which mediates action on an interpsychological level and enables the transformation of inner psychological processes (Wertsch 1998).

Thus, Penuel and Wertsch (1995, p. 90) highlighted a 'mediated approach to research' that suggested the researcher should:

- Consider identity formation 'in the course of the activity'
- Look at 'cultural and historical resources … as empowering and constraining tools for identity formation'
- View mediated action as a 'basic unit of analysis' for research

Sociocultural research therefore foregrounds careful attention to cultural tools and how these are mediated through individual use of them during participation in cultural activities.

2.7 Identity Construction in a Community of Practice

A primary focus of Wenger's (1998) work is on learning as social participation – the individual as an active participant in the practices of social communities, and in the construction of his/her identity through these communities. He defines identity as

> *A layering of events of participation and reification by which our experience and its social interpretation inform each other. As we encounter our effects on the world and develop our relations with others, these layers build upon each other to produce our identity as a very complex interweaving of participative experience and reificative projections* (Wenger, 1998, p. 151)

Five aspects of Wenger's (1998) work on identity are considered in the next section of the chapter. These include: identity as negotiated experience, as community membership, as a trajectory, as a nexus of multimembership and as a local global interplay.

Identity as Negotiated Experience

Wenger (1998) argues that engaging in a community of practice is the means by which the individual child negotiates her identities. He maintains that 'We define who we are by the ways we experience ourselves through participation as well as by the ways we and others reify our selves.' (Wenger, 1998, p. 149). This implies that a child's identity is deeply connected to her way of being in the world. A child has a certain experience of participation when she engages in the activities of a community and in turn what the community then values, reifies her as a participant. Identity is constructed when the constant cycle of participation and its social interpretation inform one another. This approach to how identities are taken up by individuals emphasises the complexity of these identities, while also pointing to the possibility of multiple forms of identity.

Identity as Community Membership

Wenger (1998) argues that practice defines a community through the aspects of mutual engagement, joint enterprise and shared repertoire. He suggests that these three aspects also apply to developing competence in a community and therefore identity and competence are strongly linked. In this research study it is argued that in the case of young children establishing identities as learners in the first year of school in a multigrade setting, it is the mutuality of engagement that is important. While in their first year at school young children learn ways of engaging as pupils in a classroom. They develop in this role by being able to participate but also by being permitted to participate by the teacher, their peers and the older children in the classroom. Thus, it is not only necessary to claim a particular identity but also that identity is to be recognised by other people in the community.

Individuals can also be defined in terms of their non-participation as well as their engagement. Wenger (1998) introduces the concept of 'marginality' in contrast to peripheral participation. He describes marginality as when participation in a practice is restricted, you become an outsider, with less resources (access to activities) to defend your interests. Marginality creates totally different identities than peripheral participation. To some extent what is at issue here is dynamics of power. Full participation may be withheld from newcomers by powerful practitioners, older children or peers in particular if the newcomers threaten to 'transform' the knowledge and practice of the existing community.

Identity as a Trajectory

Wenger (1998) also underlines the temporal dimension of identity and moves away from the linear dimension of the nature of participation and non-participation, as he suggests individuals in a community of practice can move in and out of practices on a number of 'trajectories'. While the earlier work of Lave and Wenger (1991) implied that legitimate peripheral participation in a community inevitably led to full socialization, in later work Lave (2004) challenged the strict dichotomy between 'periphery' and 'core/full' by underlining that participation may involve trajectories which do not lead to idealized 'full' participation. Wenger (1998) has suggested that movement on the trajectories may sometimes lead to an insider participating in the evolution of practice (in bound trajectory), sometimes as one who

spans the boundaries between practices (boundary trajectory) and sometimes on the way out of a practice (outbound trajectory).

More experienced peers represent the history of practice as a way of life and exposure to this set of practices which are termed 'paradigmatic trajectories' (Wenger, 1998, p. 156) contribute to shaping the participation and identities of newcomers. As Wenger (1998) explains:

> *From this perspective a community of practice is a field of possible trajectories and thus the proposal of an identity. It is a history and the promise of that history. It is a field of possible pasts and of possible futures, which are all there for participants, not only to witness, hear about and contemplate but to engage with. (*Wenger, 1998 p.156)

In their interaction with old-timers, newcomers may adopt, modify or reject paradigmatic trajectories in negotiating and renegotiating identities. This process is of particular interest in this study as children begin school will have to take on and learn to inhabit new identities.

Identity as a Nexus of Multimembership

As mentioned earlier, we all belong to several different communities of practice and our engagement in them contributes in different ways to the production of our identities. Our various forms of participation delineate pieces of a puzzle we put together rather than sharp boundaries between disconnected parts of ourselves. An identity is thus more than a single trajectory; instead it should be viewed as a nexus of multimembership. As such a nexus, identity is not a unity but neither is it simply fragmented (Wenger, 1998).

Clearly, having an identity as a Junior Infant is just one aspect of the individual child's sense of self. She may also be a daughter, playmate, or reader, to which her identity as Junior Infant is pertinent but less central. Therefore, a child's sense of self is flexible and constructed from participation in these different communities of practice. The multigrade classroom is a particular kind of community where learner identities can be studied in terms of how they are assigned and taken up. From the perspective of community of practice then it is possible to take into account the ways in which individual children inhabit overlapping identities which change according to time, place and social context. Children do not passively absorb identities. Rather, they are active agents in creating them through their positioning of

themselves in social interactions. In this research study, attention is paid specifically to how young children construct identities for themselves by being positioned or positioning themselves in the classroom.

Local-Global Interplay

The final dimension of identity making is based on an understanding of the tensions which exist between local and global perspectives. The global perspective focuses on the broader picture of learning and development and how this does and should take place in any part of the world. Wenger (1998) suggests that part of the work of a local community of practice is to engage with broader issues of the global context and this then connects their identities with the community of practice and also to a broader, global dimension. This means then that the individual members of the community of practice can understand their identities as fitting in with a broader constellation as local and global are related levels of participation which always co-exist and shape one another.

This section has presented a community of practice perspectives (Lave and Wenger, 1991; Wenger, 1998) which conceptualise identity as being shaped by the opportunities (or lack of them) offered to individuals to participate in the cultural activity of the classroom. The next section of the chapter offers further insight into the ways in which individuals respond to the sociocultural worlds which they encounter and in which they engage. The perspective of Holland, *et al.* (1998) who highlight the positional aspects of identities where children respond or take up positions in relation to the social practices which they experience is particularly useful in this regard.

2.8 Positional Identities in Figured Worlds

The concepts of 'positional identities' and 'figured worlds' were first introduced by Holland, Lachiotte, Skinner and Caine (1998) in their seminal book *Identity and Agency in Cultural Worlds.* Holland *et al*'s work (1998) on 'figured worlds' is particularly useful in that it offers insights into the ways in which individuals respond to the sociocultural worlds which they encounter and in which they engage. The writers conceptualise the construction of identity as how individuals come to understand themselves or how they come to 'figure' who they are, through the 'worlds' in which they participate and how they relate to others within and outside

of these worlds. Positional identities are formed in the process of participating in activities organised by figured worlds and have to do with 'how one identifies one's position relative to others, mediated through the ways one feels comfortable or constrained' (Holland *et al.*, 1998, p.127). They use four key concepts in order to conceptualise identity. First, they argue, identity is constructed in figured worlds where meaning is negotiated. Second, it depends on positionality, one's place in the world as determined by social divisions such as gender, age, race and class. Third, identity emerges from the space of authoring as individuals come into contact with and respond to the discourses and practices to which they are exposed. Finally, identity is constructed through making worlds in serious play, which can create new figured worlds.

Places where agents construct joint meaning in activities are termed 'figured worlds'. Socially and culturally constructed figured worlds are realms of 'interpretation in which particular characters and actors are recognized, significance is assigned to certain acts and particular outcomes are valued over others.' (Holland *et al.*, 1998, p. 52). The multigrade class is a figured world as pupils and teachers construct interpretations of actions that usually take place therein. As a figured world the classroom may be thought of as a particular social setting in which the pupils and the teacher adopt roles that help define who they are. In the figured world of the classroom, pupils develop positional identities through regular encounters and gradually learn to recognize and associate positively or negatively with an identity.

Holland *et al.'s* (1998) sociocultural practice theory of self and identity focuses attention on figured worlds as sites of possibility in terms of agency, but also state that figured worlds are a social reality that lives within dispositions mediated by relations of power. People live in a variety of figured worlds and there can be a number of contrasting relationships developing within these communities. Identities are framed by the established arrangements or resources and practices within the figured world as well as by the agentive action of the persons on those practices and resources. Identity is not solely established by social forces but can be re-figured by individual actors. Bartlett and Holland (2002) propose the following interpretation of the power of human agency in constructing identities:

> *A person may construct herself for herself in the figured world. By adopting cultural artefacts of particular figured worlds and rehearsing them in communities of practice, social actors develop the ability to challenge the*

incapacitating effects of negative social positioning (Bartlett and Holland, 2002, p 11).

Holland *et al.* (1998) also focus on the double-sided nature of identity. In other words, figured worlds are conceptualised as spaces where individuals form as well as perform. Individuals are figured collectively in practice as fitting a particular social identity and are thereby positioned in power relations. Over time individuals grow into such worlds figuring themselves in the world and developing a sense of their position and their standing in the relation of power that characterises the particular community of practice in which they find themselves. Holland *et al.* (1998) argue that within the figured world of the classroom certain styles of being a pupil are more acceptable than others. Certain pupils who lay claim to privilege are empowered to carry out activities in ways they consider appropriate and are thus making claims to being entitled. Other pupils develop positional identities which lead them to silence themselves in order to adhere to the accepted model of good pupil or in contrast some pupils reject the accepted positional identity developing an oppositional stance.

2.9 Discourse, Identity and Power

The final perspective on identity considered in this research is based on the work of Michael Foucault who is widely regarded as deeply influencing the body of theories widely known as poststructuralism. This understanding of learning in discourse is important in this thesis as it shows how Junior Infants take up and make their own particular ways of thinking and being within multigrade classes.

In this section, I explore Foucault's discussion of 'discourse' and his suggestion that selves are socially constructed through the mediation of powerful discourses. Poststructuralists believe that how we learn is through taking up and using discourse and how we do this is related to our identities and to power. To understand how discourse affects learning a poststructuralist analysis of the links between discourse, power and identity is examined.

Discourse is one of the most-frequently used terms from Foucault's work and at the same time, it is one of the most contradictory. Foucault himself uses the term to refer to the 'regulated practice that accounts for a number of statements' (Foucault 1972, p. 80) which is understood as a set of unwritten rules and structures which produce statements of meaning. For Foucault, some of these statements are widely

circulated and others less so because there exists a complex set of practices which keep those statements out of circulation. This notion of exclusion - where discourse exists because of a complex set of practices allow it - is very important in Foucault's thinking.

As socially constructed selves, we are subject to positioning by whatever powerful discourse we encounter. We learn in and through these templates or discourses by taking up and making our own of these particular ways of thinking, feeling, looking and acting in the world. In other words, discourses provide a framework for us to make sense of and act in our social world. This is not a simple process of choice, but a more complex process in which the operation of power makes it more likely that some choices will be made and others not.

Foucault (1977, 1980) proposed that there are certain dominant discourses that appear to be given the 'stamp' of truth; these are often termed 'regimes of truth' and institutions such as schools make particular discourses more desirable than others (Foucault, 1980). Therefore, certain ways of being a pupil for example, are more available to young children and they become more powerful when they take up their identity in more commonly acceptable ways. If a child takes up an identity in ways which challenge the dominant discourse, she may likely be marginalized or dismissed. For Foucault the classrooms children find themselves in greatly influence what knowledge they access and what experiences they have and therefore what meanings they give to their lives. In this study I employ a poststructuralist lens to critically reflecting on why some meanings are produced and others silenced, and, in particular how the issue of power in teaching and learning relationships in multigrade classrooms, can distort and silence some meanings and privilege others. For Foucault it is only when this understanding is achieved can we reflect further on how those silenced meanings can be revealed.

Poststructuralism particularly as seen through the work of Foucault (1972, 1977, 1980) assumes power as a productive rather than an oppressive force that cannot be possessed or owned by any individual. Power is seen as a force which moves through society with individuals both contributing to and replicating discourses and norms through their daily behaviour:

> *Power must be analysed as something which circulates, or rather as something which only functions in the form of a chain. It is never localised as a commodity or piece of wealth. Power is employed and exercised through a net-like organisation. And not only do individuals circulate between its*

> *threads, they are always in the position of simultaneously undergoing and exercising this power* (Foucault, 1980, p. 98).

Disciplinary power is an especially significant concept because it relates to the way particular ideas or 'regimes of truth' hold sway at different times. Ideas embodied in such regimes of truth are seen as so self evidently true that they are accepted uncritically. Thus, from a poststructuralist perspective, individuals take up such ideas or discourses in such a way as they embody the discourses and individuals become 'docile bodies' (Holigan, 2000, p.141) as these discourses govern their own behaviour and thinking.

The perceived need for social control of certain sections of the population leads to the establishment of these institutions where intervention and normalisation can take place. In his genealogies of mental illness, prisons and sexuality, Foucault showed how people are constituted as subjects of competing historical discourses with those who are viewed outside the norm in need of regulation and rehabilitation. In a disciplined society, schools are regarded as places where children are kept apart from adults and are subjected to a number of practices which both define and regulate their 'otherness'. Teachers, judges and doctors etc. impose power by evaluating, rewarding and normalising behaviour through their institutional practices. Reflecting the work of Foucault in her research, Devine (2003) demonstrates the productive and cyclical aspect of power and has foregrounded the notion of otherness implicit in power relations between primary school pupils and their teachers. The sense of otherness as portrayed by children in Devine's (2003) study is communicated through the dynamics of power and control between teachers and pupils and also amongst the pupils themselves. The variety of practices and discourses which exclude children, evoking a sense of not belonging and being different are also significant in her research.

Foucault (1980) believed that wherever power is discursively exercised, there are also possibilities for resistance to the authorizing knowledges. The concept of resistance can describe strategies used by individuals to mark their opposition to the prevailing institutional logic. Acts of resistance or 'counter-power' (Amot and Ytterhus, 2014, p. 267) can also be understood as ways of turning the balance of power around so that the child can assume control of the situation. In my research, the discursive struggles between teachers and children and between the children

themselves provide evidence as to how relations of power-knowledge are constructed in the multigrade classroom.

2.10 Exploring Early Childhood Curriculum Positions

In this section I aim to show how the theoretical framework presented in the earlier part of the chapter can be applied to early childhood practice. Intentions of educators result from their philosophy of education as well as their curriculum goals (Spodek, 1988, Einsadottir, 2003). Similarly, curriculum goals are used by teachers to help them concretise their philosophy of early childhood education and describe their intended actions in the classroom. If teachers' actions and classroom practices are driven by their beliefs, then, in order to understand how teachers interpret curriculum in the classroom one must not only understand the practice of teachers but also the teachers' thought processes and the philosophical tenets that underpin those thoughts (Soler and Miller, 2003 Bennett, Wood and Rogers, 1997). Therefore, curriculum can be understood as a 'social artefact, conceived of and made for deliberate human purposes' (Goodson, 1994, p. 18), that is, a sociocultural construction which is influenced by a particular historical and social environment.

All curriculum models give status to different funds of knowledge, ways of understanding and modes of thinking. Alexander (2009) suggests that curriculum is best viewed as a 'process of metamorphosis' beginning with the published statutory requirements and ending in the understanding a pupil acquires as a result of classroom activities. The metamorphosis is best viewed as a series of 'translations, transpositions and transformations' a set of shifts from specification to transaction (Alexander, 2009, p. 8). Furthermore, models reflect a set of beliefs and values about what is considered to be educationally worthwhile in terms of children's learning needs but also in terms of the wider needs of society at large. In an attempt to characterise the nature of current ideological debate on early childhood curricular issues, three frameworks or orientations towards curriculum design are briefly outlined. This conceptual framework is based broadly on the work of German critical social theorist, Jűrgen Habermas, who argues that there are three interests or positions each reflecting a different understanding of knowledge in society (Pinar, Reynolds, Slattery and Taubman, 1995):

Technical (or conforming) interests stem from a desire to discover how things happen and how we can control what happens.

Practical (or reforming) interests wish to gain insight into events with a view to finding out and understanding what they mean.

Critical (or transforming) interests explore knowledge with a view to finding out if that knowledge is free from bias.

These orientations are understood as a continuum of perspectives which are unlikely to exist in pure form, but which give an opportunity to explore the influences that have shaped the landscape of early childhood curriculum (Sugrue, 2004). Alexander (2008) refines this categorisation further to include the following versions of teaching: transmission, negotiation, initiation and acceleration.

Conforming to Society

A 'conforming to society' position on the role of a curriculum for the early years, places the emphasis on the social worth of early childhood education. The broad guiding principle of this position is that early education should prepare the child for adulthood, so that she can fit in and contribute appropriately to that world. The position itself stems from a philosophy of cultural transmission which holds that the most effective way to transmit social values to the child is to do so through education.

This model of curriculum design derived in large part from the work of Tyler (1949). He developed a rationale, the Tyler rationale, which focussed on four stages of curriculum development. The first of these stages involved the clarification of goals to specify both the type of behaviour to be developed in the child and the area of content into which it was to be introduced. The formulation of goals may be based on an 'objectives approach' (Lovat and Smith, 1990), where objectives are understood to be closely defined statements of intent. This approach to curriculum goals is most closely associated with standardized curriculum in which all children are expected to achieve particular but similar standards.

Those who take a 'conforming to society' approach to curriculum value the development of skills and knowledge that would promote success in the workplace. The routines that develop in classrooms follow behaviourist understandings of the learner and are fixed for all children. A dominance of adult-directed activities in pedagogical interactions is likely and, as the educator is in control of learning, the use of teacher reward and reinforcement would predominate as key motivations for learning. The implications then of the technical interest in early childhood curriculum

have led to criticisms of the unequal nature of power relationships implicit in this approach.

In the first instance, the 'conforming to society' approach to curriculum suggests that although multicultural and multiethnic diversity may exist in societies, there is a tendency to treat all children 'equally' as if they are all similar. This has the effect of masking essential differences between them or even of ignoring them completely. Moreover, it is the dominant culture that is transmitted to young children through their education and as a consequence ensuring the perpetuation of the *status quo* continues to exist.

Secondly, within a technical approach to curriculum theory, the power dynamics are unequally weighted in favour of those who have devised the objectives of the curriculum (Kelly, 1999). The practitioner is regarded as a technician who delivers a pre-set curriculum and has little power to integrate their values in their work. The child is seen as a passive rather than an active learner and as she is firmly placed at the bottom of the hierarchy of power, she is completely deprived of the capacity to determine what is learned.

Reforming Society

A 'reforming society' position on early childhood curriculum is concerned that the focus of education should be child-centred, with an emphasis on each child achieving her full potential as an autonomous, individual and rational being. The philosophy which guides this position can be traced to the beginning of the 20th century, when a new way of thinking about the nature of the child, classroom methods and the purposes of schooling increasingly dominated educational discourse. Progressive education and more especially its child centred aspects became part of a larger revolt against tradition in general and the formalism of schools in particular. A major influential thinker of the time was John Dewey, who believed a key function of the education system was to help children develop as independent, thoughtful and questioning adults. Furthermore, he believed education should be rooted in the everyday life of the child and that the child should be actively involved in her own learning.

The growing commitment to child-centred education was underpinned and greatly enhanced by the study of child development theory. This theory which clarifies not only how children learn best at different stages of their lives, but also

how their minds develop, has introduced a new concept of learning where the development of understanding is emphasised, rather than the acquisition of pre-specified knowledge and skills (Kelly, 1999). The practitioner's role is primarily to understand what is happening developmentally for the child and then, based on this insight, to select experiences that will furnish learning opportunities for the child. Therefore, curriculum practice is based on:

> *An in-depth understanding of child development and often referred to learning as developmentally appropriate practice. Rather than focus first on what is to be learned, in a developmentally appropriate classroom, the teacher begins by working hard to understand the developmental abilities of his class and then make decisions about what should be taught* (Henniger, 1999, p. 80).

In order to reflect further on the implications of the 'reforming society' approach to curriculum design, it is necessary to return to consider its basic orientation, which is to enable the child to develop knowledge and gain insight through understanding. Learning from this perspective involves what Buber (1980) describes as a 'critical reflective encounter', where the child engages in a cycle of action and reflection on action leading to new action. It is the child's needs and interests which drive the direction and content of the learning, while the practitioner's role is in interacting with the child, with a view to making meaning of the world. Pedagogical strategies reflect developmental and constructive theories, highlighting how the practitioner constantly adjusts to the child's changing interests and understandings.

Although the tenet of 'developmental appropriateness' continues to be of great significance in the discourse of early childhood education, there has been a growing body of criticism cautioning against the over reliance on it as a curriculum informant (e.g. Edwards, 2005). Firstly, there is a concern that much of the developmental knowledge of the child that we have gathered is culturally and ethnocentrically narrow and this has consequences for curriculum goals, as they will also be culturally narrow (MacNaughton, 2003). Kessler (1991) has raised the question regarding *whose* development was represented by developmental theory and argued that the view of development informing early childhood education evolved from and is associated with research with white, middle class, male America. Such a theoretical base does not necessarily reflect the alternative experiences of different populations and there has been criticism that early childhood education programmes have failed to serve the

needs and aspirations of in particular indigenous peoples across the globe. Secondly, the challenge to this theoretical perspective's dominance in early childhood education centres around the focus on the individual child as constructor of knowledge (Edwards, 2005). As has been demonstrated throughout this review, the theoretical arguments put forward by Vygotsky in sociocultural theory, have become increasingly important as informants to the field of early childhood education. The conception of the child proposed by developmental theory is a particularly solitary view of childhood and has focused on the individual child, ignoring Vygotskian explanations of human development as a sociocultural process where social interaction between the child, peers and adults is regarded as essential for developing understanding and acquiring skill in cultural contexts.

Finally, the focus on the individual child can obscure how the dynamics of social relationships, for example, gender, ethnicity and class can influence a child's behaviour. MacNaughton (2000) argues that inequalities and injustices created by these dynamics in social relationships can also be concealed and countering these possibilities necessitates that practitioners uncover the politics of young children's daily lives. I examine some ways to do this when I look at the final interest which is the critical or transforming interest.

Transforming Society

The final perspective on curriculum ideology stems from a social constructionist school of thought. It is linked to an emancipatory\transformative view of education. These ideas are constructed partly from the new sociology of childhood (Prout and James, 1997) and are also derived from post-modern, poststructuralist, feminist poststructuralist, anti-bias and critical theorist thinking. Poststructuralist and social constructionist theorists believe that single theories of children, child development or learning are insufficient and cannot explain or predict development across cultures and across time. The social constructionist view of the learner rests on post-modern views of knowledge as non-universal, complex, contradictory and changing (Dahlberg, Moss and Pence, 1999) taking for granted that the child is a competent social actor who seeks to give meaning to her life and will construct her own activity, in her own time and in her own space (Qvortrup *et al.*, 1994). Consequently there is no longer a right or correct way of interpreting the world;

instead there are many possible ways. This is because understandings of the world are messy, context-bound and culturally specific:

> *We are seen to live in webs of multiple representations of class, race, gender, language and social relations; meanings vary even within one individual Self-identity is constituted and reconstituted relationally, its boundaries remapped and negotiated*. (Lather, 1991, p. 101)

Social constructionism is just beginning to influence thinking about the curriculum in the field of early childhood education. For example, Canella and Grieshaber suggest that

> *For early childhood educators the perspectives are tied to diversity, flexibility and critique – to the construction of shifting and reinvented identities that are willing to turn their own worlds upside down to reinvent and increase possibilities with/for those who are younger* (Canella and Grieshaber, 2001, p. 180).

MacNaughton (2003, p. 76) points out that if we accept the idea that through our interactions we can and do transform each other, then these implications for curriculum will follow:

- The child offers alternative not inferior ways of knowing
- The child is complex and constructed in and through relations of power
- Educators of young children should expand children's possibilities and interrogate injustice and oppression with them
- Opening up new possibilities for those who are younger creates social justice and equity

Critical educators, therefore, recognise the agentic child and give the child voice. They build curriculum content by questioning what they are doing and why. They reflect critically on the values in their curriculum and look for any unintended bias in their work with young children. Although both social constructivist and social constructionist ideologies are child-centred and holistic, the latter leads to a more challenging and critical pedagogy where educators work with children to create a better world.

2.11 Exploring Classroom Contexts in Early Childhood Education.

The purpose of this section of the review is to consider a broad range of issues which arise in classroom practice from consideration of key theoretical perspectives. These issues include how young children engage in learning experiences in the early years of school, how adults support children's access to different forms of knowledge and what are the key features of appropriate learning environments for young children in the first years of formal schooling.

The growing emphasis in research about teaching and how children learn has not been accompanied by an engagement with pedagogy and the absence of any tradition of systematic pedagogy in practice or policy making is a feature of early childhood education (Siraj-Blatchford, 1999; Moyles *et al.* 2002; Stephen, 2010a). Mortimore (1999) has pointed to the contested nature of the term 'pedagogy' which is subject to changing connotation and pressure and suggests that the term is most helpfully defined as an activity that promotes learning. His preferred definition is 'any conscious action by one person designed to enhance learning in another' (p. 3). Siraj-Blatchford *et al.,* (2002) have taken a similar view in their study of effective pedagogy in the early years and suggest that pedagogy includes both the direct actions undertaken by the teacher to facilitate learning (e.g. provision of activities, interactions with children that promote learning) as well as indirect activities (e.g. planning, observing and recording) and the provision of instructive learning environments and routines.

Sociocultural theory emphasises the importance of the social context within which the child will interact with adults and more knowledgeable peers to explore new understandings, knowledge and skills (Vygotsky 1978, 1987). Theorists in this area emphasise that children learn best when they are actively engaged in their own learning, supported by more knowledgeable others. Collaboration between the child and adults, as well as between the child and peers is seen as important and the dialogue that occurs in such interactions is valued as an important context for knowledge building. A number of researchers highlight the interactive nature of pedagogy, that is the communication that takes place between teacher, learner and the learning environment (Bowman *et al.,* 2001; Moyles *et al.* 2002). While for Siraj-Blatchford et al., (2002) an essential aspect of pedagogy is a high degree of adult involvement with the children. Pedagogical practices considered here range from

didactic interactions to those more often associated with socioculturally influenced practices including modelling, prompting exploration, questioning, scaffolding specific skills acquisition and encouraging a child's disposition to learn.

Moyles *et al.*, (2002), explored pedagogy from the perspective of the practitioner in the Study of Pedagogical Effectiveness in Early Learning, (SPEEL) research project. They argue that the impact of teacher reflection on pedagogy is that a critical evaluation of practice is carried out which ultimately contributes to enhancing the authenticity of pedagogy. 'Pedagogy encompasses both what teachers do and think and the principles, theories, perceptions and challenges that inform and shape it.' (Moyles *et al.*, 2002, p. 5). One of the central underpinning philosophies of this research was that early childhood practitioners can and should actively engage in the articulation and understanding of effective pedagogy. Moreover, pedagogy is viewed as a complex web of practices developed by teachers through their training and as a result of professional experiences and personal understandings.

A number of noteworthy findings were reported from the analysis of pedagogy in early years settings by Siraj-Blatchford et al., (2002) in the Researching Effective Pedagogy in the Early Years (REPEY) study. Teaching and learning was reported as effective in centres where practice was characterised by cognitive interactions including those which led to sustained shared thinking, direct teaching and monitoring of children's activities. Although activities that created opportunities for shared thinking were relatively rare, it was observed to be very effective in extending children's thinking. Sustained shared thinking is defined as is defined by Sylva et *al.*, (2004) as ocurring where

> *'two or more individuals work together in an interrelated way to solve a problem, clarify a concept, evaluate an activity extend a narrative etc, Both parties must contribute to the thinking and it must develop and extend the understanding.'* (Sylva et al., 2004, p. vi)

Sustained shared thinking was most commonly seen during children's literacy and mathematics activities. In pre-school settings there were even numbers of incidences of child-initiated and adult-initiated activities, whereas in reception classes most learning episodes were initiated by adults.

Another important finding was that a teacher's understanding of 'pedagogical content knowledge' was essential. Teachers used this knowledge to pinpoint what parts of the curriculum might be most relevant to the needs of the children. Teachers

were also able to select the most appropriate pedagogical strategies in teaching particular aspects of content. The importance of selecting appropriate strategies is seen in the light of other research which suggests that although there are many pedagogical approaches which are effective in early childhood situations, particular types of strategy should be selected judiciously to address specific needs with none being effective for all purposes (Bowman *et al.*, 2001). An essential challenge for the pedagogue is to use professional judgement to select appropriate strategies to facilitate the child's learning (Goldstein, 2007).

Learning through Play

One of the most well accepted principals of early years pedagogy is well planned play, 'as a key way in which young children learn' (QCA 1999 p. 10). It has often been assumed that a direct relationship between play and learning exists such that learning occurs automatically without the necessity for adult direction (Bruce 2011; Anning 1997). Bennett, Wood and Rogers, (1997) have demonstrated the need to look at play not only as an opportunity for children to learn but also for adults to teach, or at least to pro-actively contribute to children's learning.

Whilst play is considered one of the fundamental continuities of early childhood education, an agreed pedagogy is less well articulated. As the British Educational Research Association (BERA) Early Years Special Interest Group (2003) pointed out in their review of literature 'the picture that emerges from research is that play is problematic' (p. 11). They identified key studies in school settings which showed significant gaps between the rhetoric and the reality of play in practice. They questioned the efficacy of free play (where young learners choose from a range of activities and experiences) and described how play can be stereotypical and lacking in challenge. The consistent picture to emerge from these studies is that many teachers experience difficulties in using play in the classroom as they are pressurized by the demands of a very full curriculum and large class sizes. Sestini's (1987) study for example demonstrated that the play activities provided were used mainly to promote a social function while the teacher concentrated on more formal tasks particularly in literacy and numeracy. Play in classrooms has been limited in frequency, duration and quality with teachers too often adopting a reactive, watching and waiting approach. Similar conclusions were reached by other studies including Bennett and Kell (1989) and Cleave and Brown (1991).

A study which has added substantially to a sociocultural understanding the pedagogy of play in the first year of primary school is that of Bennett *et al.* (1997). This study investigated the theories of play held by reception teachers and how these beliefs affected classroom practice. Evidence from the study suggests that although play has a high priority in the thinking of reception class teachers, it poses various challenges because of constraints on practice. The constraints included the legislated curriculum framework, parents' expectations, the school timetable, space and resources, adult-child ratios and the children's abilities to gain from the play opportunities provided which are also reflected in more recent research on play in early years classrooms (Keating, 2000; Walsh, Sproule, McGuinness, Trew, Rafferty and Sheehy, 2006; Moyles, 2010; Wood, 2013).

Broadhead's (2001, 2004) research is also embedded within sociocultural understandings of play. Her research has investigated how children become more sociable and cooperative through their play in early years educational settings demonstrating the link between social and cooperative play with other children and high levels of intellectual challenge and problem solving. In particular, Broadhead (2004) suggests that through interactive play young children form social concepts and through revisiting roles in the context of play, children explore and experience multiple subject positions in relation to others and have opportunity to make sense of their experiences in interpersonal situations.

The nature of collaborative activity facilitated in play appears to be particularly important for children in the early years as it involves both language and action. Talk is the social mode of thinking and co-operation is linked with intellectual stimulation and development. As children become older they show enhanced level of mutual understanding and they begin to see other children as intentional agents. Since children's play development is progressive and moves along paths of increasing social, physical and cognitive complexity (Wood, 2007), this may mean that Junior Infants who have the opportunity to play with older children may engage in more complex play situations. Darling-Hammond and Bransford (2007) suggest that classrooms that encourage these types of social interactions can produce rich learning experiences. This research points to the benefit of mixed age play for younger children.

A poststructuralist perspective on play contests dominant ways of knowing the child and of understanding childhood play (Ailwood, 2003; Wood, 2014). The

application of this framework to the subject of play highlights the 'regimes of truth' (Foucault, 1977) or ideological commitment to subjects such as play prevalent in early childhood discourse. Attention is paid to how pedagogy in relation to children's play is structured by adult-led regulatory practices which may curtail physical, social and affective qualities of play. For example, Rogers and Evans (2008) identified how the way in which play is structured pedagogically in early childhood settings may severely limited the opportunities available to children in the English Reception Class. In 'free' play sessions, children appeared to exercise control over where, with whom and what they played. However, in reality the common-place organisational strategy where children were assigned and rotated a particular play material, observed in early childhood classroom routines may constrain rather than enable children's opportunities to develop socially. In many early childhood settings, choice time is often offered to children as a reward for work when children have completed teacher-directed tasks. This choice is, however, controlled by the adults in the classroom who choose groups of children and direct them to specific areas of the play provision. Practices such as these may limit opportunities available to children to exercise agency in shaping the play pedagogy of their classrooms (Wood, 2014).

Developing Learning Communities in Early Childhood Classrooms

A sociocultural perspective holds that learning is social and in the classroom, teachers must employ participation structures that encourage collaborative involvement. Classroom management involves practical implementation of much of the pedagogical knowledge outlined in the previous section. Classroom management has been broadly defined as practice undertaken to create and sustain a learning environment that supports learning goals (Brophy, 1988). Contemporary research about classroom management relies as much on developing relationships; building classroom communities based on respect where children have opportunities to learn productively; providing a meaningful curriculum; making decisions about timing and other instructional interventions and successfully encouraging children to participate meaningfully in classroom activities as it does on determining consequences for inappropriate behaviour (Lepage and Sockett, 2004).

Approaches to classroom management have varied to the extent to which they are based on what Burden (2000) describes low-, medium-, or high- control strategies. Methods that are founded on behaviourism are generally considered high control as

they emphasize external rewards and punishments to shape behaviour. The behavioural approach can be traced back to learning principles first espoused by Skinner (1968). The first principle states that positive reinforcement will strengthen behaviour by applying a stimulus or reward following desired behaviour. The second principle, called negative reinforcement, removes a stimulus in return for the desired child behaviour. Contemporary behaviourists usually differentiate between procedures for increasing desired behaviour and lessening undesired behaviour. The third principle, extinction, may occur when a reinforcer declines or disappears and with time the disruptive pupil behaviour will also disappear. Finally, the most controversial principle is punishment.

Low to medium control approaches are underpinned by the philosophical belief that development emerges from both innate and outer influences and stem from a perspective where learning is seen as a collaborative practice in which child development takes place through peer interaction and adult support, guidance, explanation, joint action and modelling brings implications for the nature and role of the classroom context. Thus, the control of pupil behaviour is a joint responsibility of both the child and the teacher. Approaches to classroom management which are supportive of building a relational community seen as necessary for children to be involved in thinking more independently, taking responsibility for their own learning and deriving cognitive benefits from peer interaction. Lewis (2001) suggests that low to medium approaches to classroom management are more effective for regulating behaviour and improving academic outcomes. They are also associated with high quality teaching, although most agree that they necessitate greater teacher skill in implementing them.

The ‘community of learners’ model of classroom culture (Rogoff, 1994) could be considered as supportive of a low to medium approach of classroom management. Such learning communities are used to describe approaches to community building in the classroom typified by a ‘sense of belonging, of collective concern for each individual, of individual responsibility for the collective good and of appreciation for the rituals and the celebrations of the group’ (Noddings, 1996, p. 266). A key feature of these approaches is the view that ‘higher order functions develop out of social interaction’ (Tharp and Gallimore, 1988, p. 7) and consequently multiple forms of assistance and participation are required to create a range of educational opportunities. In such a community all members may make a significant contribution to the

emerging understandings of the group in spite of having unequal knowledge regarding the topic under study because all knowledge is equally valued. Community allows for its members to learn from each other and co-construct knowledge. Classroom community arises not serendipitously but from the shared ways its members develop for relating to one another (Battistich, *et al.,* 1991). In addition, all members benefit from opportunities to direct and assist as well as to receive assistance. Although there may be asymmetry of roles, this is not static, varying from one situation to another as various participants take the lead at different times in shifting small group, large group arrangements (Rogoff, 1994). In a community classroom approach to classroom management, authority relationships are less hierarchical (Brophy, 2006). However, an authoritative rather than authoritarian role for the teacher is implicit.

Inclusion of Pupils with Special Educational Needs

Since the introduction of the Education for Persons with Special Educational Needs Act (EPSEN) (2004) the Department of Education and Skills in Ireland has made considerable progress in implementing a policy of educating children with special educational needs in inclusive settings. This is in line with international efforts to challenge the phenomenon of social exclusion partly through an emphasis on inclusive education (Carpenter, 2005; Jones, 2005).

Cooper and Jacobs, (2011) suggested that recent emphasis on the role of inclusive practice in the early years has focussed, among other considerations, on the realisation that participation in practice necessitates an initial commitment by teachers to providing appropriate contexts in which children with special educational needs can access opportunities for active participation. Rix *et al.,* (2009) suggested what was particularly significant in successfully including children with special educational needs in the classroom was when the practitioners shared similar approaches and had a unified understanding of what they were trying to achieve in the classroom.

A major support tool in the Irish system is the Special Needs Assistant (SNA) support to individual pupils. SNA support can be allocated (i) where a pupil has a significant medical need for care assistance; (ii) a significant impairment of physical or sensory function; (iii) where their behaviour is such that they are a danger to themselves or other pupils; (iv) where it seriously interferes with the learning opportunities of other pupils (Logan, 2006).

Class Size Effects

There has been a long running and vigorous debate both across educational systems about the educational effects of class size differences and whether or not they impact on pupils' academic progress (e.g. Blatchford, Bassett, Goldstein and Martin, 2003a). Of relevance to this study is that there is some agreement that class size effects are most notable in the case of the youngest children in the school and in the first years after school entry (Blatchford, Goldstein and Martin, 2002a). Blatchford, Moriarty, Edmonds and Martin (2002b) reported that in small classes, younger pupils were more likely to interact with their teachers on a one-to one basis. In addition, children participated more fully and became more actively involved in interactions with their teachers. In contrast, Blatchford, Edmonds and Martin (2003a) found that in large classes children were more likely to become distracted and show off-task behaviour with peers. However, although children in smaller classes may interact more with their teachers, they may become over-reliant on the teacher and look for direction more than in larger classes. This, Blatchford *et al.* (2002b) suggest is because in the small classes there was a tendency for teachers to give immediate feedback thus creating an expectation for children that their needs would be met immediately by the teacher thus discouraging them from working more independently or collaboratively with each other.

Although debate about class size has often been in terms of reduced size of class resulting in academic gains, the concept of class size it is not always as straightforward as this. A second facet of the research on class size which has a bearing on this study is the link between class size and the number and size of class groups which then have implications for learning experiences (Blatchford, Baines, Kutnick and Martin, 2001). The size of the within-class group was also an issue and as groups became bigger the quality of the children's work and their concentration were adversely affected. Interestingly, in Blatchford *et al.'s* (2001) study the number of adults in the class increased with the number of class groupings.

Gender

Several studies have established the issues of gender in the early years highlighting the constraints imposed on young children by dominant gender discourses that position girls and boys within a dualistic gender order (Davies, 1989). Francis (1998) suggests that teachers and children often construct masculinity and

femininity as oppositional with femininity labeled as sensible and selfless and masculinity as silly and selfish.

> *Of the feminine construction, maturity, obedience and neatness are the valued 'sensible' qualities, which naturally lead to 'selflessness' - giving and facilitating. The masculine construction involves 'silly' qualities of immaturity, messiness and naughtiness, leading to 'selfishness' - taking and demanding* (Francis, 1998, p. 40).

Francis (1998) demonstrated that these concepts influenced gendered power relations as girls looked for recognition and praise for positioning themselves as 'sensible' in opposition to boys' enactment of 'silly'.

Other research has demonstrated the need for educators to further examine power relations involved in children's relationships which position children as male or female and the ways in which children learn about, negotiate and enact a range of femininities and masculinities within early childhood classrooms (Paechter, 2007). In particular, Paechter's (2007) study of communities of practice of femininities and masculinities provides a theoretical framework for examining the complex ways in which children are involved in constructing their own local cultures and how young boys and girls become participants of local communities of practice of masculinities and femininities. She demonstrates that children learn what it is to be masculine and feminine through legitimate peripheral participation in communities of femininity and masculinity of older children and adults.

The concept of hegemonic masculinity refers to the way in which the dominant position of the males in a community of practice is achieved through cultural practices and institutions (Paechter, 2007). Hegemony is maintained and reproduced by structuring discourse in such a way as to ensure that unequal power relations are seen natural and inevitable. This has important consequences for young boys who have to learn how to behave in order to fit in with the male community of practice. Paechter (2007) has documented how boys frequently seek to enact and reproduce local hegemonic practices of masculinity in order to participate in their communities of masculinities.

2.12 Conclusion

The concept of pedagogy that is relational co-constructed, which allows time for children to engage with others and their environment in meaningful ways has been

explored in this chapter. Close attention has also been paid to a broader understanding of sociocultural practices in the classroom. Using the theoretical framework provided by Wenger (1998), Holland *et al.* (1998) and Foucault (1977, 1980, 1984) a more complex conceptualisation of identity and pedagogy has been outlined in this chapter which merges individual, social and material influences regarding how individuals learn to use and resist strategies and techniques of power. In this study the multigrade classroom is understood as a particular kind of community or figured world where learner identities can be studied in terms of how learners are assigned and take up identities. The community or figured world is seen as organized around positions of status and influence and the Junior Infants learn to take up particular identities through their active desire to make sense of themselves and their relationships with peers, teachers and older classmates in coherent and meaningful ways. Through their participation in the practices of the classroom (e.g. literacy lessons, mixed-age collaborative activities, whole class group discussions, playground games) and the social relationships they develop, individual children author their worlds, coping with their realities thus learning which ways of participating are privileged and which are not.

It has been acknowledged that teaching in a multigrade setting can bring unique challenges and a review of literature providing an overview of significant aspects of these types of settings is provided in Chapter 3. Both of the literature chapters together provide the basis for this study to examine the social context and interactions observed in eight multigrade school contexts to explicate the participation of Junior Infant pupils as well as interactions among peers and with older children in a variety of contexts within their schools.

CHAPTER THREE: TEACHING AND LEARNING IN MULTIGRADE CLASSES

3.1 Introduction

This chapter reviews the research on multigrade classes. The review commences by tracing the historical context and prevalence of multigrade education both in Ireland and internationally. It then examines the forms of pedagogy and curriculum organisation most commonly found in multigrade classes. The next section focuses on multigrade classes in smaller and larger schools. An overview of the research on the effects of multigrade classes on student achievement as well as the processes which contribute to these effects is outlined followed by a section which explores the types of teaching and grouping strategies most likely to be practised by teachers in multigrade classes. The research concerning the views of teachers in relation to how early childhood pedagogy is enacted in multigrade classes is then highlighted. The recent debate on small schools which includes a focus on amalgamation of small schools and a consideration of leadership issues is also addressed. Finally, Inspectors' Reports of Whole School Evaluations, provide an official policy context for the research. These reports are examined to investigate the focus and nature of evaluations and the extent to which advice on issues of multigrade pedagogy and especially that in the infant classes of multigrade schools is provided.

3.2 Multigrade Schools in Ireland: Historical Context

The multigrade school system in Ireland had its origins in the old hedge-school structure of the 17th, 18th and 19th century. Hedge schools began as a means of educating children of the non-established religions following the introduction of Penal Laws of the 1690's. They were fee-paying schools where a travelling teacher taught children of varying ages, often as young as four to as old as nineteen, in return for a fee. This fee depended on the prosperity of the child's parents and could range from a money fee to a contribution of turf or food to the teacher. It is estimated that in 1824 there were as many as 11,000 schools in Ireland with around 500,000 children attending but by 1830 many of these 'hedge schools' had moved into more permanent structures.

In 1831, formal primary education was established in Ireland. This meant that children no longer had to attend fee paying or charity schools. Instead they could

attend a local primary school. A National Board of Education was set up and the Government gave a grant which paid for the building costs of the new school as well as the salaries of the teachers. Any area that wanted a school had to apply for a grant to build it. In many areas, this applicant was the local clergyman as he was the only one with the necessary knowledge and connections to affect such a process. Consequently, many parishes subsumed the hedge schools and came to have a number of multi-grade schools located in their area, each having 50 to 100 children and 1– 2 teachers. In many cases two schools were built, side by side, one for boys and another for girls.

The fall in population post the 1845 Famine affected many of these schools as enrolments and attendances fluctuated alarmingly over the latter part of the 19th century. The conditions of the school buildings also deteriorated but the recognition that the learning of English was vital for any intending emigrant kept these multigrade schools alive. In 1919, the Killanin Report recommended the amalgamation of multigrade schools due to falling enrolments (Hyland, 1987). In many cases what this meant was the amalgamation of the conjoined boys and girls schools. Despite opposition from the Church and wariness of Ministers on the subject, schools gradually did amalgamate (Coolahan, 1981).

In Ireland in the school year 1924/25, the first year for which an annual report was produced by the newly established Irish Department of Education, there were 4,560 one and two teacher schools. By the 1999/2000 school year, 764 schools had only one or two teachers. While this decline in the number of multigrade schools began in the 1920s it really gathered pace in the 1960s. A world wide philosophy advocating the establishment of larger schools took hold in the 1950s where it was felt larger schools were easier to maintain, children achieved better outcomes and it was a better working environment for teachers. In Norway, over 50% of all rural schools were closed between 1950 and 1970 while in England and Wales, in the same period, over 2000 small rural schools were closed (INTO, 2011).

In Ireland under the direction of Education Ministers, George Colley and Donogh O'Malley, the level of amalgamations accelerated. People were lured by the improvement in rural public transport and the compensation of a bus to the central school, so that between 1966 and 1973, the number of one and two teacher schools was reduced by 1,100. In many cases, there was strong opposition to the closure of a

school but people lacked a central unified voice their community needed to halt the closure (INTO, 2011).

In 1991, the OECD acknowledged the importance of small rural schools in the regeneration of rural Ireland, yet simultaneously almost the concept of 'rationalisation' which encouraged amalgamations aimed at having schools with no fewer than four teachers was also supported in a Government Green Paper 'Education for a Changing World' published in 1992. However, by the time of the National Education Convention in 1994, debate had shifted to suggesting that educational quality and not school size should be the main criterion for rationalisation. Although it was recognised that some rationalisation was inevitable, it was stressed that this needed to be done in a coherent manner.

In times of economic recession, the lack of economic viability of small schools is a perennial argument. In 2009, the Report of the Special Group on Public Service Numbers and Expenditure Programmes (DES, 2009) advocated the closure or amalgamation of 659 schools with less than 50 pupils. The report also proposed the amalgamation of a further 851 schools with between 51 and 100 pupils enrolled. The Education (Amendment) Protection of Schools Bill was introduced in 2012 to protect schools which are of such importance that their closure would result in a harmful impact upon a community. Such schools included Gaeltacht schools, schools in a geographical, cultural, religious or non-denominational community and offshore island schools. The Bill was defeated. In Minister's Questions in May 2012, Ruairí Quinn TD (Minister for Education) suggested that there would be a category of rural school entitled 'isolated school' which would provide education in the most isolated areas regardless of school population. However, this is yet to be decided.

Current government policy has further threatened the closure of more small schools. In 2012, budgetary measures were introduced which saw phased increases in the pupil thresholds for the allocation of classroom teachers in all one to four teacher schools. The final phase of this rationalisation plan took place in September 2014. The Government have indicated that they will await the publishing of the 'Small Schools Review -Value for Money' Report to inform the future direction of small schools in Ireland. The report is yet to be published and no interim findings are available. However, there is some speculation that the report will suggest that schools with less than 80 pupils which are located close together should consider immediate amalgamation. The creation of clusters of schools where teaching staff and principals

may be shared among a number of schools is also thought to be a suggestion in the report (Kelly, 2014).

3.3 Terminology

Multigrade teaching is common in many countries including both industrialised and developing countries. Multigrade classes are composed of two or more grades within the same classroom. One teacher has responsibility for the instruction of all grades in this classroom within a time-tabled period (Little, 2001; Mason and Doepner, 1998; Mason and Good, 1996; Russell, Rowe and Hill, 1998; Veenman, 1995). Multigrade classes exist within a graded system of education and are contrasted with the usual pattern of single grade classroom organisation. Children in multigrade classes retain their grade level label and follow a specific curriculum for their grade as they are promoted through the school with their grade level cohort (Mason and Burns, 1997; Veenman 1995).

Several other terms may be used in the literature to refer to a multigrade class. These include ‘combination class’, ‘composite class’, ‘double class’, ‘vertically grouped class’, ‘mixed age class’, ‘split-grade class’ (Russell, Rowe and Hill, 1998; Veenman, 1995). The difference between the terms ‘multigrade’ and ‘multiage’ also needs to be clarified. Multiage are classes that have been organised across grade levels by choice based on perceived educational benefits (Mason and Burns, 1996; Veenman, 1995). The multiage structure has an individualised, developmental focus and is based on a system of continuous progress rather than graded curriculum for class groups. The intention in a multiage classroom, which is based on a particular pedagogical intent, is for children of varying ages and grade levels to be socially and academically integrated into a single learning community (Cornish, 2010). Such classes may occur in either graded or non-graded school contexts.

3.4 Multigrade Classes in Small and Large Schools.

Multigrade classes are most often associated with smaller schools in rural and sparsely populated areas where there may not be a teacher for every grade in the school. These schools are more likely to have multigrade classes which are comprised of three or more grades. Larger schools in urban and suburban areas may also have multigrade classes when enrolments fluctuate to the extent that it is necessary to combine grades to form a multigrade class (Veenman, 1995). In larger schools, the

multigrade class will generally be comprised of two grades and are sometimes referred to as 'consecutive' classes (DES, 2004).

Furthermore, multigrade classes in smaller and larger schools can be contrasted in other ways. Multigrade classes are the norm in smaller schools and therefore children are likely to spend their entire primary education in such classes. Small schools generally have smaller class and grade sizes because of lower pupil enrolment and as a result, a smaller number of teachers on staff (generally less than 5). In this situation, children are likely to have the same teacher for a number of years of their time in primary school thus enabling teachers to get to know the children very well (Hopkins and Ellis, 1991). Children may have siblings and/or relations in the class which can contribute to a family atmosphere within the school which is often closely connected to the community it serves (Galton and Patrick, 1990).

In larger schools, multigrade classes are generally a short-term measure to deal with fluctuating enrolment. Therefore, children have probably spent most of their time in primary school in single grade class settings and may return to a single grade when pupil intake increases (Mulryan-Kyne, 2005a). There is also evidence to suggest that principals when faced with forming a multigrade class will operate a principle of 'purposeful assignment' (e.g. Bennett, O'Hare and Lee, 1983; Mason and Doepner, 1998; Veenman, 1995). This practice means that more able, more independent and more co-operative children are placed in multigrade classes in order to create favourable class conditions for the teacher. In summary, it seems that children will have different experiences of multigrade depending on the type of school they attend.

There are also important distinctions to be made between teaching multigrade classes in a small and large schools. In a study by Pratt and Treacy (1986) on grouping practices in multigrade classes in Western Australia, teachers in larger, urban schools were found to be resistant to multigrade classes, whereas, teachers in rural areas were more accepting and saw several advantages in these settings. The differences between teaching in two-grade multigrade settings and multigrade settings which have three or more grades have not been explored extensively until recently in the research literature (Mulryan-Kyne, 2005b). Quail and Smith's (2014) study on the effects of class composition distinguished between single grade pupils; mixed with both older and younger pupils. However, much of the research on multigrade teaching has been carried out in two grade settings which are frequently features of

larger schools. This means the relevance of this research to rural multigrade settings is not known (Mulryan-Kyne, 2005b).

3.5 Prevalence of Multigrade Classes.

A review of the research on multigrade classes has shown that these classes are a widespread and important setting worldwide (e.g. Mason and Burns, 1996; Veenman, 1995, 2001). As many as one third of all classes are reported to be multigrade (UNESCO, 2004). However, it is more difficult to ascertain exact figures on the incidence of multigrade classes as data on multigrade teachers and schools is not routinely collected (Little, 1995).

Multigrade classes are a feature of the primary schooling system of most European countries and of many parts of Canada and Australia (Mulryan-Kyne, 2005b; Little, 1995; Veenman, 1995). Table 3.1 below which has been adapted from the research of Mulryan-Kyne (2007) gives an indication of the incidence of multigrade teaching in many parts of the developed world including Europe, Canada and Australia.

Table 3.1: Examples of the prevalence of multigrade teaching in selected developed countries (Mulryan-Kyne, 2007)

Country	Source of information	Prevalence of multigrade
England	Pridmore (2004)	25.4% of primary classes had two or more grades
Ireland	Department of Education and Science (2013)	31% of primary classes had two or more grade levels 19% of schools have some multigrade classes
Scotland	Scottish Executive (2004)	33% of all classes were multigrade
Sweden	Little (1995)	35% of schools had multigrade classes
Norway	Eurydice (2002)	42% of primary schools had multigrade classes
Finland	Armi (2002)	32.4% of primary classes were multigrade
Czech Republic	Brozove (2002)	35% of primary schools are multigrade
Canada	Gayfer (1991)	20% of children enrolled in a multigrade class
Australia (Northern Territory)	Little (1995)	40% of classes were multigrade

Europe

Across the 1980s and 1990s a policy of decentralisation and deregulation was affecting most Western countries. Whereas the number of small rural primary schools having 50 pupils or less remained almost unchanged during the ten years before 1986, by 1997 this number was reduced to almost the half of its original size. Similar reductions were seen in a number of other European countries such as Sweden, Finland, Iceland and the United Kingdom (Sigsworth and Solstad 2005). Following an extensive search of more recent literature it became evident that a number of European countries (Ireland, England, Scotland, Sweden, Norway, Finland and the Czech Republic) as well as areas in Canada and in Developing Countries have a higher proportion of multigrade schools. A summary of this research is included below.

Ireland

In Ireland, small average school size at primary level means that many children are taught in multigrade settings. The most recent Department of Education and Science (2014), statistics regarding multigrade schools are contained in Table 3.2 below.

Table 3.2: ***National Schools and Pupils by Pupil Size of Schools in 2013/2014***

No. of Pupils	**‹ 50**	**50-99**	**Total**
Average No. of Teachers per School*	2.3	4.2	9.2
Schools	600	751	3,145
Pupils	18, 570	56,670	525,141

*This number includes all teachers in the school e.g. Classroom Teachers, Learning Support and Resource Teachers.

From September 2013, a school needs a minimum of 20 pupils to retain two teachers, 56 to retain three teachers and 86 to retain four teachers. In my research study I distinguish between two types of school: two teacher schools where it is likely that Junior Infants are in classrooms with three other grades (Senior Infants, First and Second Classes) and three teacher schools where Junior Infants are taught with two other grades (Senior Infants and First Class).

England

The historical background of the development of small schools in England reveals a shift in government policy on small schools from relentless threat of closure through a period of 'presumption against closure' announced by the Labour Government in1998 (DfEE, 1998). In 2006, 2,586 (14.8%) primary schools had 100 or fewer on roll (DfES, 2006). Although stable since 2000, this figure follows a fall from nearly 4000 in the mid 1980s. In this decade government policy had assumed that 'it is inherently difficult for a small school to be educationally satisfactory' (DES, 1985 par 275) and proposed three teachers as a minimum requirement but also recommending that children aged 9 to 11 years should have access to curriculum specialists. Although government funded research showed no systematic differences between pupils and teachers in small and large schools (Galton and Patrick, 1990), 127 schools were closed in 1983 and an average of 30 schools per year until 1997 (DETR and MAFF, 2000).

Following reports of the schools inspectorate which highlighted that small schools had begun to 'achieve on average higher scores than larger schools' (OfSTED 1999, Section 9.2), the new Labour government announced that government action had stopped the demise of rural schools and put them back at the centre of their communities (Department for Education and Employment, 2000). Since then, the Department for Education and Employment has provided ongoing funding which encourages small schools to pilot innovative ways to overcome difficulties due to their small size.

Education policy has increasingly emphasised the importance of generating strong school, family and local community partnerships (DfEE, 2000). The use of school space for community-based social activities was strengthened with the UK government's extended services initiative. The policy positioned schools as providers of a range of services including child care, parenting support, homework clubs, referral to specialist agencies and in general to enhance the creation of economic, social and human capitals in their communities (Commission for Rural Communities, 2006). Furthermore, since 2007, mandatory school inspection procedures require all schools to show the contribution they make to the community.

Scotland

Approximately 751 schools in Scotland had fewer than 100 pupils. Of these, 431 (or 20% of the total number of primary schools) had fewer than 50 pupils (Scottish Executive, 2006). Three-quarters of these very small schools (326) were concentrated in ten local authorities, with the highest number of small schools being located in Highland Council.

Sweden

There was a rapid increase in the numbers of multigrade classes in Sweden during the 1980s and the 1990s. In 2000, approximately one third of Swedish students in the first three years of school attended mixed age classes and about one quarter of students in grades 4 and 5. Mixed age classes are formed due to demographic necessity or due to pedagogical claims of enhanced student achievements. Initially, initiatives to start multigrade classes came from teachers supported by management, but evidence from 1990s suggest that multi-age classes were introduced by government against the wishes of teachers and are also more prevalent in schools with a higher number of lower-performing students (Lindstrom and Lindahl, 2011).

Norway

Across the 1980s and 1990s a policy of decentralisation and deregulation with regard to provision of education was followed in Norway. Each municipality had in fact, to determine its own priorities for spending across the various sectors of public services. However, shrinking public budgets exacerbated an unintended effect of transferring power from central to local level authorities and growing demands for public services, combined with high per pupil costs in small rural schools, forced many rural districts into amalgamating schools wherever possible. In 1988, the number of schools having three classes or less was reduced to half.

Finland

Finland is a sparsely populated country: 5.3 million people inhabit 338, 000 square kilometres making an average population density of 17 inhabitants per square kilometer. The ideal of equality and general education are the fundamental values behind the existence of small village schools in Finland. Although small schools have

historically been a vital part of the Finnish network of schools, the smallest schools with an enrolment of fewer than 50 students and one, two or three teachers can now be called an endangered species. During the last decade, about 100 schools a year have been closed or amalgamated. Due to demographic, economic and political reasons, 513 schools were closed during the years 2005-2009, including schools with more than 50 pupils (Kalaoja and Pietarnen, 2009).

Czech Republic

66% of the population of the Czech Republic live in predominantly rural regions and this type of settlement is associated with a relatively high proportion of small schools with multigrade classes. Under legislation, different grades can be merged in a single class only at primary school. Primary school consists of 5 grades, but schools are not obliged to open all of them and some primary schools have only 3 or 4 grades, instruction in the higher missing grades being provided by the nearest basic school. Government policy in education has committed to several steps in support of small schools with multigrade classes. It is mainly those working in these schools that manage them and make decisions concerning their existence. In addition, a programme of in-service training subsidies provided to small schools with multigrade classes has been available since 2005 (Trnková, 2007).

Canada

In Canada, each province has total control and jurisdiction over its education system. The province of Newfoundland and Labrador is Canada's second smallest in terms of population. The total population is around 500,000, the majority of whom live in rural areas. For most of the 20th century, educational authorities in Canada have pursued a consistent policy of school closure and consolidation which has run its course and a point has now been reached where there is acceptance that the small schools that remain will be there as long as their communities continue to exist. Close to 25% of schools in the province of Newfoundland and Labrador have less than 100 pupils and 37 of these have less than 50. The majority of the small schools in remote and isolated places are all-grade, K-12 schools. All of these schools would be multigrade for grades K-9, with most having three or more grade levels combined in one classroom (Mulcahy, 2009). Similarly, in 2001 about 25 percent of primary

school pupils were in mixed grade classrooms in Ontario (Fradette and Lataille-Démoré, 2003)

Developing Countries

Multigrade classes are also common in developing countries where they are often seen as an efficient way of providing education for children in remote and socially disadvantaged areas (Little, 2001; Veenman, 1995, Joyce, 2014). Multigrade classes are common in many parts of Asia, Latin America (Aikman and Pridmore, 2001) and Africa (Mulkeen and Higgins, 2009). For example, in India 84% of schools have multigrade classes (Gupta, Jain and Bala, 1996) while in Peru 78% of all public schools are multigrade (Hargreaves, Montero, Chau, Sibli, Thanh, 2001). Multigrade schools are also very prevalent in Africa with 26% of all schools in Zambia being one-teacher schools (Lungwanga, 1989), 26% (almost 5,000) of schools in South Africa are multigrade and in Senegal 10% of the Primary school population are in multigrade classes (Mulkeen and Higgins, 2009). The statistics also indicate a trend which notes that the number of multigrade classes is increasing throughout the world. The implication of this increase is likely to be that such countries will need support and structures to ensure quality teaching in these contexts (Mulryan-Kyne, 2007).

3.6 Research Literature on Multigrade Classes.

As evidenced in the figures presented above, multigrade teaching is still very common in both developed and developing countries throughout the world. However, despite its high prevalence, it is somewhat surprising to note that the literature on multigrade teaching is limited. Furthermore, the policy and practice of multigrade research varies from country to country and this has implications for the way in which research is conducted and the results obtained (Little, 2001). However, some significant studies do exist.

Cognitive and Non Cognitive Effects of Multigrade Settings

The research literature on multigrade classes has often been focussed on whether or not being taught in a multigrade class has an effect on a pupil's attainment. Over the past twenty years there have been five significant studies of multigrade teaching which systematise and evaluate research on the effects of multigrade classes on student achievement as well as ones which investigate the processes that contribute to these effects. These include Pratt, (1986); Miller, (1991); Gayfer (1991); Veenman,

(1995) and Mason and Burns (1997). The general evidence on the cognitive and non-cognitive outcomes of multigrade compared with single grade classes which emerges from these studies would suggest that there is no difference between the performances of children in either setting (Galton and Patrick, 1990; Miller, 1991; Pratt, 1986; Veenman, 1995, 1996; Mason and Burns, 1996). One of the reasons for this is that there are many variables likely to influence student achievement levels and class composition is not the strongest of these. In fact, Veenman, (1995) suggests that grouping alone is unlikely to have an effect on student outcome as learning is more dependent on the quality of teaching than on organisational structure. Other more recent research including Wilkinson and Hamilton's (2003) research on learning to read in a multigrade class in New Zealand concur with Vennman's (1995) findings.

Having reviewed experimental studies conducted between 1948 and 1983 in the USA and Canada, Pratt (1986) concluded that there was no consistent pattern to the findings on cognitive outcomes (achievement in Maths and English). While the pattern of findings on non-cognitive outcomes (friendship patterns, self-concept, self-esteem, social development) was more consistent, researchers either reported in favour of multigrade classes or reported no difference. In his review of multigrade research from the USA, Miller (1991) confirms Pratt's (1986) findings that pupils in multigrade classes tended to perform as well as those in single grade classes. Gayfer (1991, p. 367) reports the positive findings of many Canadian studies and the achievement of students in multigrade classes which were found to be at least equal to those in single grades, concluding that 'students are sometimes better off in multigrade classes than in single grade classes'. Gayfer (1991) reported that students in multi grade classes out performed their peers in single grade classes on independence, dependability, confidence, responsibility, co-operation with others, interaction skills and positive attitude towards schools.

In Irish primary schools, the National Assessment of Mathematics Achievement (Shiel and Kelly, 1999) found no significant differences between the achievement of pupils in single grade and multigrade classes. However, just over ten years later, the National Assessment of Mathematics and Reading (Eivers *et al.* (2010), reported that Second Class pupils in multigrade schools had lower than average reading scores than those in single grade classes. No significant differences were found in this study for Second Class mathematics or Sixth Class mathematics or

reading. However, these analyses demonstrate average differences and do not allow us to determine differences in reading and maths scores comparing 'like with like'.

Veenman's (1995) extensive and rigorous review of available research worldwide distinguishes results in different types of multigrade school and class. Veenman (1995) conducted a 'best evidence synthesis' and generally found that 'students in multigrade classes learn as much as their counterparts in single age classes' (Veenman, 1995, p. 350). Mason and Burns (1997) and Veenman (1995) disagreed about specific inclusion criteria for studies in their reviews. Mason and Burns (1996, p. 315) who carried out research mainly in combination classes disagree with the findings of 'no difference in achievement' for pupils in multigrade classes. They suggested that principals, in an effort to create a more favourable classroom environment for combination classes, operate a 'selection bias' placing more able, more independent and more cooperative students in multigrade classes' and there is also evidence to suggest that better teachers are assigned to teach these classes. Veenman and Mason continued to critique each others work, (Veenmann 1995, 1996; Mason and Burns, 1996, 1997; Mason and Doepner, 1998; Mason and Good, 1996) but their overall findings in this area were similar.

Quail and Smith (2014) employed the first wave of the Growing Up in Ireland (GUI) millennium cohort study to explore the impact of being taught in a multigrade class on behavioural adjustment, intellectual status and perceived popularity. In particular, the findings of Quail and Smith's (2014) study suggest that younger children had more negative views of their own intellectual abilities as it was felt that the presence of older children as a group which the younger children looked up to made the younger children feel that they should be doing schoolwork at the same standard as the older children. In further analyses which investigated for potential differences in outcomes for boys and girls, younger girls were found to be more affected by being in a multigrade class than boys. For example, younger girls in multigrade classes with older children had poorer behavioural adjustment and were much less likely to see themselves as popular with their peers. The younger girls also scored significantly worse in reading and maths tests than their counterparts in single grade classes. These findings point to the necessity for teachers to consider the gender dynamics of the classroom in order to prevent potentially negative effects on girls' self-image and performance.

Teaching Strategies in Multigrade Classes

The quality of teaching and the nature of teaching strategies employed in multigrade classes are critical issues. This section explores the type of teaching strategies that are likely to be practised by multigrade teachers and how they organise teaching in ways which help them cope with a wide range of pupil age and abilities. While there is agreement in the literature that extra demands are placed on teachers in multigrade settings as compared with single grade settings (Daniel, 1988; Mason and Doepner, 1998; Mason and Burns, 1997; Veenman, 1995, 1996; Joyce, 2014), there is not general agreement about whether this influences the actual quality of teaching in multigrade classes (Russell *et al.,* 1998). Teachers in Irish multigrade schools report that there were some advantages to teaching in multigrade schools where teachers could facilitate a wide range of methodologies and get to know children very well as they were with these children over a long period (Mulryan-Kyne, 2004).

Small multigrade schools require forms of pedagogy and curriculum organisation suited to their scale and their mixed-age classes (Guttierez and Slavin, 1992; Veenman, 1992). These are naturally different from, and more complex than, those employed in single-age classes. Instructional disadvantages related to multigrade classes are connected to the inappropriate suitability of the curriculum for multiple grades, the time factor, inadequate availability of teaching materials and the lack of adult assistance available in the classroom for teachers (Morgan and Ó Slatara, 2004; Kaloaja and Pietarinen, 2009). The impact of these additional challenges is that some multigrade teachers report greater levels of job stress than their colleagues in single grade classes (Darmody and Smith, 2011)

Veenman (1995) indicated in his best evidence synthesis of research on multigrade and multi-age education, that research on specific instructional processes used by teachers is largely neglected. In fact, most of the studies Veenman's (1995) review concluded there was little or no understanding of teaching processes used in multigrade or multi-age settings. Much of the research compares teaching approaches in multigrade and single-age classes. Berry and Little (2006) indicated that a significant number of teachers in their study on inner city London schools said their practices in single-age and multigrade classes were the same. Other researchers found that teachers do not adapt their teaching styles to meet the needs of multigrade classes (Mason and Good, 1996; Veenmann, 1995)

Although now somewhat dated, Galton's large scale research carried out in small rural schools provides a very comprehensive picture of curriculum implementation and classroom processes. It includes the study of Curriculum Provision in Small Schools (PRISMS) (Galton and Patrick, 1990), the Rural Schools Curriculum Enhancement National Evaluation (SCENE) (Galton, 1993; Galton, Fogelman, Hargreaves, and Cavendish, 1991) and a longitudinal study of small rural schools' clustering and the National Curriculum in the Midlands (INCSS) (Galton, Hargreaves, and Comber, 1998; Hargreaves, Comber, and Galton, 1996). Their findings have challenged presumptions that there were fundamental difficulties in curriculum coverage in small schools. Similarly, the research on multigrade schools in Finland highlights positive instructional characteristics as: the potential for individualised instruction; pupils working independently; a secure atmosphere in the classroom and pupil-centred teaching all of which support the development of pupils self concept (Vulliamy, Kimonen, Nevalainen and Webb, 1997). Another study of curriculum implementation in small schools notes that small schools success in pupil achievement may partly be due to curriculum leadership of headteachers who themselves have a teaching involvement (Vulliamy and Webb, 1995). However, they also highlighted differences in curriculum provision in schools as well as in schools' abilities to exploit the potential advantages of small classes and the longer term relationships that could develop among children.

It is also acknowledged throughout the research that teaching in a multigrade class is a complex activity requiring a wide range of organisation and instruction skills (Mason and Good, 1996). Gaustad (1995) identified some characteristics of successful teachers of multigrade classes. These included teachers having a deep understanding of child development, an ability to use a wide variety of instructional strategies as well as a facility to manage homogenous and heterogeneous groupings within the classroom.

Given the pivotal role of the teacher in determining the nature and quality of the education that children receive, it is important to ensure that teacher education is of the highest possible quality. Mulryan-Kyne, (2007) identified some difficulties in relation to initial teacher education for multigrade contexts and pointed to the need to establish education programmes which introduce teachers to important aspects of the available knowledge base in multigrade education, knowledge which enables them to make informed judgements about their classroom practices. Wilson, (2003) reported

that because teachers are trained in single grade methods, they tend to avoid multigrade classes if possible perceiving them as having extra workload in planning and delivery of curriculum

In addition, the need for multigrade teachers to have access to ongoing support in curricular areas which is specific to their mixed-age context is highlighted (Turner, 2008). Contact and interaction with fellow professionals in the context of one's work is an important form of continuing professional development and a problem which arises is the need to access better professional development, share best practice and come to terms with curricular reform (Vulliamy and Webb, 1995). Since many multigrade schools are located in geographically isolated areas, a practice of clustering addresses difficulties associated with continuous professional development, assisting principals and teachers with curriculum planning and policy development (Wilson and McPake, 1998). In the Irish context, principals highlighted increased feelings of collegiality and greater professional support which clustering brings. However, principals also indicated that clustering does not inevitably reduce the workload of the teaching principal (Morgan and Ó Slatara, 2005).

3.7 Grouping Arrangements.

Teaching Grades Separately

What is clear from Veenman's (1995) meta-analysis and from other research is that one of the more common organisational arrangements within multigrade settings is for teachers to teach each grade within the classroom separately (Galton and Patrick, 1990; Kaloaja and Pertainen, 2009; Mason and Good, 1996; Pratt, 1986; Veenman, Vote, and Elm, 1987). In this approach, sometimes termed 'quasi monograde', (Little, 2005; Pridmore, 2007), the teacher directly teaches each group, treating them as if they were a single grade class for that period. While one group is receiving instruction, the other undertakes individual 'seatwork'). 'Seatwork' is the term used in the research literature which is that part of the lesson where pupils work on tasks or activities independently or with a small group away from the attention of the teacher (Mulryan-Kyne, 2005b). This strategy is most often used in two grade multigrade classes and more usually for mathematics and reading (Mason and Good, 1996). According to Veenman (1995), this approach leads to a situation where the multigrade setting is little different to the single grade setting except children have to share their teacher with one or more other grades. Mason and Burns (1996) argue that

if teachers maintain grade distinctions in their multigrade classes, they present two separate curricula, organise two sets of curricular materials and activities and must monitor two groups. Consequently, there is a decrease in direct instruction levels with children having to wait long periods to gain the attention of their teacher (Galton and Patrick, 1990).

Teachers face a number of challenges in facilitating independent work for their pupils. The issue of time-on task is explored and there is some difference of opinion in the findings of researchers. Everston (1989) for example, indicates that student's time on task levels are lower during independent seatwork than during teacher directed instruction. Findings from observational studies in mixed age classes indicate that time-on-task in mixed age classes is on average 6% lower than in single grade classes (Veenman *et al.,* 1987). From the perspective of Irish teachers there was not sufficient time to spend with each grade level in each subject and they believed that children with lower levels of achievement in particular lost out (Mulryan-Kyne, 2004). However, Pratt and Treacy, (1986) found no differences in time-on-task between multigrade and single grade classes while Mason and Good, (1996) found time-on-tasks measures during independent work more favourable in multigrade rather than single grade classes.

A regular challenge for multigrade teachers is the provision of appropriate independent learning activities (INTO, 2003). Teachers consider many factors when choosing material for independent seatwork. The importance of matching independent learning tasks to the needs of pupils is essential. Mason and Good, (1996) suggest that teachers, in an effort to reduce interruption have favoured simple reinforcement activities which ensure success for children without having to collaborate with others. This has particular implications for teachers in early years as children may not have developed sufficient skill in literacy to access independent learning materials.

Another factor which emerges from the research is the use of concrete materials during seatwork. In a study which compared mathematics instruction in combination classes with that in single grade classes, Mason and Good, (1996) focussed their research on the use of materials in the mathematics class. Pupils in multigrade classes were found to have less opportunity to use concrete materials during mathematics than their peers in single grade classes. It appears that sometimes independent work in multigrade classes is aimed at keeping children busy, but in as quiet and ordered a fashion as possible. Meanwhile, teachers were involved with

providing direct instruction with the other group. Content of independent work analysed in this research featured mainly written computation activities (Mason and Good, 1996). However, the researchers admit that the study was exploratory with a limited sample of 24 and therefore its findings may not reflect practice in some multigrade schools. Despite the small sample size of this research, the study provides informative findings.

Critics of the separate grade instruction approach observe that over reliance on separate grade instruction does not encourage teachers to explore other strategies which may be effective in meeting the needs of individual children within the multigrade setting. These practices which include cross-grade grouping or cross-age tutoring, where children are grouped across grade lines, are believed to have the potential to improve the quality of teaching and learning in multigrade settings (Gutierrez and Slavin, 1992; Veenman, 1995).

Teaching Across Grades

Veenman (1995) argues that the multigrade class has unique potential for cross-grade grouping. Cross-grade grouping allows the teacher to reduce the number of working groups in the class and to accommodate more precisely the needs of individuals within the class. In addition the teacher can address the needs of several levels of ability within one lesson. (Gutierrez and Slavin, 1992) Children engage in reduced amount of independent seatwork because they are spending a greater proportion of time being instructed directly by the teacher.

Pridmore, (2007) outlines two varied approaches to curriculum planning. Teachers use these approaches in multigrade settings to address problems of curricular coverage when implementing cross grade teaching strategies. These are

1. Differentiation of curriculum.
2. Multiple-year cycles developed for certain curricular area

The ‘differentiated curriculum’ is an example of one such approach where learning is facilitated across age and grade boundaries. In this strategy, the same general topic in the same subject is used with all learners at the beginning and end of the lesson. The teacher uses questions of varying degrees of difficulty to extend and support learning. Each grade group also completes a task at their own level of learning (Little, 2005;

Pridmore, 2007). In the second model, pupils in consecutive grades work through common topics and activities together but complete curriculum cycles at different times. For example in the area of Science, a child in a Senior Infant class may follow a curriculum for Junior Infants if he had completed a Senior Infant curriculum the previous year. These two approaches are often combined for subjects areas other than reading work in language and number work in mathematics which need to be learned more incrementally and where each grade is generally taught separately (Pridmore, 2007).

In contrast to the views expressed already, Mason and Burns (1996) point out some constraints in relation to the management of cross-age grouping and maintain that its usefulness has yet to be proven in research studies. Cross grade grouping may lead to problems in relation to curriculum if pupils from upper grades are taught a lower grade curriculum. To clarify this issue further let us consider a hypothetical example. If a teacher implements a cross grade grouping strategy, a pupil in Second Class for example, is taught mainly the curriculum for First Class while she is in a multigrade class of first and second classes. The following year the pupil moves to third class and is taught the third class curriculum. It is possible that such children may miss out on some elements of a grade level of curriculum or will develop different single/multiple grade histories.

Cross Age Tutoring

Post-Vygotskian notions of teaching and learning as assisted performance (Tharp and Gallimore, 1998) or as a process of guided participation (Rogoff, 1990) suggest that learning emerges both as a result of deliberate guidance of the learner by a more capable other as well as incidentally through participation in collective activities with members of the learning community. Tutoring, both peer and cross-age, is an example of a strategy which purposefully enables children to support each others learning and is recognised as a key strategy in improving learning in multigrade classes (Miller, 1991; Russell *et al.,* 1998; Thomas and Shaw, 1992). In particular, the findings of a study which investigated principal and teacher perceptions of various aspects of learning and teaching in multigrade classes in Victoria, Australia, (Russell *et al.,* 1998), strongly endorsed tutoring as an appropriate and useful strategy to use in the multigrade classroom. Tutoring was seen to be of benefit to the tutor in particular with most of the benefits being social ones. However, Thomas and Shaw (1992) argue

that tutoring appears to be most effective when it is implemented within a structured programme and for a limited amount of time.

Veenman (1995) has argued that little cross-grade grouping takes place within the multigrade setting. However, a study in Ireland found that across grade grouping was used by a significant but relatively small number of teachers in a range of different subjects (Mulryan-Kyne, 2005). In the Irish context, Mulryan-Kyne (2005) notes that rather than applying the organizational methods used in single grade classes, the teachers in her study used a variety of grouping arrangements. Cross grade grouping strategies included teachers working with all grades together and two grades together usually for aspects of Gaeilge (Irish language), English and Mathematics, although a much smaller proportion of junior level teachers employed this strategy in comparison to their colleagues teaching the senior classes.

The key findings in relation to research literature on teaching and grouping strategies in multigrade classes is that grade composition alone is unlikely to have any significant effects on the cognitive outcomes for pupils while the pattern of findings on non-cognitive outcomes is also mixed. While teaching in a multigrade class suggests the need for a pedagogy more suited to the mixed-age characteristic of the class and practices where children are grouped across grade lines are believed to have potential to improve the quality of teaching and learning in multigrade classes, it is evident in the research that grouping practices in many multigrade do not differ significantly from those employed in single grade classes. The necessities for initial teacher education and access to ongoing professional development in curricular areas which are specific to their mixed age context are also highlighted.

3.8 Early Childhood Pedagogy in the Multigrade Context

Pratt and Treacy (1986) investigated the experiences of Year 1 and Year 2 children (first and second years in school) in multigrade classes in Western Australia. Teachers in their study thought it important that both grades felt distinct and the physical layout of some of the classrooms with classes seated separately and in different coloured chairs, served to deliberately highlight the differences between the classes. The levels of time-on-task for the non-teaching group varied and were dependent on the appropriateness and intrinsic value of the task provided by the teacher and on the teacher's classroom management skills. The procedure in one classroom was that children could not ask the teacher for assistance when she was

with another group. Once the children in the non-teaching group realised that the teacher would not give any attention to them their time on task levels diminished considerably.

Anning and Billet (1995) compared the provision for four year olds in two small village schools with provision in two large town schools in England, that teacher time is severely restricted in a multigrade setting, leaving little left for interaction with individual children or with small groups. Although the study did not investigate multigrade practice, the qualitative data which emerged has highlighted the nature of the experiences of the four year olds in the small schools and indicates how pedagogical provision is influenced by the constraints of a multigrade setting. The aim of the teacher was to 'absorb' the four year olds into the class as quickly as possible. Children were grouped by age for formal seat-based work. It was noted that in particular there was limited adult intervention in children's free play activities.

A concern of early childhood teachers in multigrade settings is how to provide two distinct types of learning experience where an activity based learner oriented pedagogy is set alongside the more formal curriculum-centred experiences of older grades within the same classroom (Britt *et al*., 2003). A study by Aubrey (2004) which investigated the challenges faced by teachers seeking to implement the Foundation stage (a new curriculum for 3 to 5 year olds) in reception classes in the United Kingdom highlighted the dilemma of early childhood teachers in multigrade settings. Some 57% of head teachers and 60% of class teachers with mixed ages reported experiencing some difficulties in teaching both the Foundation Stage Curriculum Guidelines and the Primary School Curriculum in the same class. Lesson planning and adopting appropriate teaching styles were the main challenges, these are especially noteworthy as these were among the few issues of concern expressed by the interviewees

3.9 Benefits of Multigrade Classes for Younger Children

In contrast to the multigrade research (Mason and Burns, 1996; Veenman, 1995) which has been outlined earlier in the chapter, some advocates of mixed-age grouping in early childhood education maintain that children's cognitive skills will also improve in mixed-age settings (Katz, Evangelou and Hartman, 1990). In other research studies there is evidence also that curriculum differentiation matters greatly for pupil achievement and that at any given achievement level students who are

exposed to more challenging curriculum or 'tracked up' learn more than similar ability pupils who are 'tracked down' - in other words exposed to a less demanding curriculum (Hallinan, 2003). Multigrade classrooms can offer increased potential for a young child's cognitive development, as this can be scaffolded by an older child in cross-age tutoring (Pridmore, 2007). Furthermore, Feldman and Gray (1999) express that the benefits for pupils are that younger children actively seek the help of older children to gain knowledge and to develop their skills Teachers speak of younger pupils being "stretched" both cognitively and behaviourally where the younger pupils emulate the older children (Berry and Little, 2006; INTO, 2003; Mulryan-Kyne, 2004; Veenman, 1995).

The Montessori philosophy emphasises the need for mixed age groups in three year cycles; classrooms have children aged between zero to three, three to six years, six to nine years, nine to twelve years, twelve to fifteen and fifteen to eighteen years. Montessori was a strong advocate for mixed age groups and believed that

> *The main thing is that the groups should contain different ages, because it has great influence on the cultural development of the child. This is obtained by the relations of the children among themselves. You cannot imagine how well a young child learns from an older child; how patient the older child is with the difficulties of the younger. (Montessori, 1989 p.12*)

In addition, in such Montessori settings, children develop social skills more readily in a mixed age setting, learning to develop social sensitivities throughout the three-year cycle. By staying in a classroom for a three year period, children develop a strong sense of community and stability, with two thirds of a class returning every year and this aids the development of students as role models for one another. As the children work cooperatively and respectfully, the younger children look up to their older peers and emulate their mentors. In the following years, the younger children become the leaders of the group and share skills and caring for the younger children in the community. This positive and collaborative atmosphere within the three-year cycle helps to shape the character of the children for life (Montessori, 1989).

Since 2002, the cantons of the German-speaking region of Switzerland and the Principality of Lichtenstein have been working together on a project entitled 'Education and learning in a pre-school and the first years of primary school in the context of the EDK's Eastern Division and partner cantons'. The concept of the

‘Basisstufe’ is to develop a school programme where two years of pre-school education would be combined with the first two years of primary school. In the pilot classes the age composition of the Basisstufe is mixed and there are two or three teachers working with the class who share responsibility for teaching. The project has been designed to ensure the development of a common set of educational principles for the first-cycle of learning and there is a gradual transition from learning through play to systematic learning. The main aim of the programme is to enable children to progress on the basis of their stage of development and learning and to keep the transition from pre-school to primary school flexible. The final evaluation report of the pilot phase of the Basisstufe indicated that the programme was successful in merging kindergarten teaching and primary school teaching. In particular, the programme offered children both a successful transition from learning through play to task oriented learning and continuity in the first years of primary school. (Moser, Bayer and Berverger, 2008). Little detail appears in the research on the role of the teacher in structured cross age grouped activities in early childhood settings. Winsler’s, (1993) research suggests that children seemed to benefit most from activities that had been moderately structured by the teacher. The highest levels of cross age interaction (54%) took place during activities which were teacher directed in choice of task content. These activities did however give children a choice of which classmates to work with and the manner in which they would go about the task.

Mixed-age classes are thought to have advantages over single age classes in the richer more diverse social environment that is created. There is likely to be a wide range of intellectual and social competence in a mixed-age class and expectations for children are not solely age related and this may allow children more freedom to develop at a rate more suited to themselves. Increased prosocial behaviour, and participation in complex play situations are also thought to be advantageous facets of mixed-age settings (Goldman, 1981, Katz, 1995).

Research on the social effects of mixed-age classes would suggest children differentiate their expectations of others behaviour and adapt their own depending on the participants of the group. In mixed-age groups, younger children preferred the same age peers as friends while they regarded older children in the group as helpful and sympathetic leaders. For their part, the older children perceived younger children as needing help and affording older children the opportunity of developing leadership skills (French, 1984). While Dunn, Kontos, and Potter (1996), established that it is not

the presence older children in settings *per se* that is important, but how teachers structure the social setting to support children's interactions between younger and older children.

In several studies, investigators compared play in mixed-age classrooms with the type of play that happened in single-age classrooms and the evidence reveals that incidences of prosocial behaviours in children increased in mixed-age classrooms. The behaviours researched included sharing and turn taking (Katz, 1995; Winsler, 1993). Children who played in mixed age groups were benefiting from more diverse and socially integrated play experiences (Berk and Winsler, 1995). Younger children engaged in more complex types of play when older children organised and engaged with them in advanced play situations (Goldman, 1981; Mounts and Roopnarine, 1987). In these instances, older children in mixed-age groups provide the scaffolding for the play of the younger children and in this sense operate within the zone of proximal development. Chase and Doan (1994) state, for example, that older children spontaneously facilitated younger children's behaviour when they worked in small mixed-age groups. When groups of children ranging in age were asked to make decisions, they went through the processes of reaching a consensus with far more organizing statements and more leadership behaviour than children in same-age groups. Other prosocial behaviours such as help-giving and sharing were also more frequent in mixed-age groups.

However, Roopnarine *et al.* (1992) had mixed findings in relation to children's participation in cross age play and the data generated by his study did not provide strong support for the benefits children might gain in play activities in mixed-age classes. In mixed-age classes, there was more co-operative constructive play whereas in single grade classes, co-operative dramatic play dominated. The lack of dramatic play in mixed age classes may be because such play in particular requires each of the participants to have similar levels of verbal fluency which may not exist given the difference in ages of the pupils. Construction play on the other hand may be more easily adapted to the varying developmental abilities of the children in mixed-age groups and allows them to meet within a zone of proximal development that is a prerequisite for learning in the social situation.

Researchers note that gender segregation happened less often in mixed-age settings than in single age groupings. Winsler *et al.* (2002), for example, found in their study on friendship choices in mixed-age preschool classes, that given a choice

of playmate children spent on average 43% of their time with a peer of the other gender. In fact, children generally interacted more often in groups of mixed gender if these groups were made up of children of different ages. However, the study also showed that as the school year went on, children were less likely to play with children of a different age and a different gender to themselves.

The research evidence in this section suggests that pupils in multigrade classrooms achieve similar educational outcomes to those in single grade classes (Galton and Patrick, 1990; Miller, 1991; Pratt, 1986; Veenman, 1995, 1996; Mason and Burns, 1996). More recent research in the Irish context has largely confirmed this position except that girls were found to experience a range of negative effects depending on the age composition of the class (Quail and Smyth, 2014). It is also acknowledged that teaching is somewhat different and possibly more challenging in multigrade classes compared with single grade classes (Mason and Doepner, 1998; Kalaoja, 1990, Mason and Burns, 1997; Veenman, 1995; 1996, Joyce, 2014). An overview of the research on pedagogy indicates that strategies adopted by teachers in multigrade contexts do not differ greatly from those used in single grade classes (Berry and Little, 2006) and that teachers do not adapt their strategies to the multigrade setting (Veenman, 1995). The review also suggests that while teacher time and possibilities for adult-child interaction may often be curtailed in multigrade settings, advocates of mixed age learning propose that there are also considerable benefits for younger children in these settings (Feldman and Gray, 1999; Pridmore, 2007). The benefits include increased opportunities for play and learning in richer and more diverse social environments (Katz, 1992, 1995; Hallinan, 2003).

3.10 Current Debate on Small Schools

Small Schools in the Community

References to the sense of community and to school-community links pervade the literature on multigrade schools. The sense of community found in rural areas is seen as a factor which strengthens multigrade schools. The idea of pulling together to help each other out has long been a tradition in rural areas and based on this belief there is an important link between the individual and the community which stretches to certain community institutions including the school. The small school in rural areas is often thought of as the heart of the community and plays a significant part in the

identity formation of places, with integration between schools and communities on many levels and events held at school playing a large part in holding the community together. For example, school buildings are tangible and symbolic focal points in their communities and in some instances the school serves as a home for a range of community events that are both educational and leisure. Because schools in small communities encourage and shape the forms of social interaction that become valued by community members, the school institutionalises a sense of collective identity and through these social networks, stores of social capital that contribute to the community's well-being are built up (Johns, Kilpatrick, Falk, and Mulford, 2000).

For the smallest rural communities, the presence of a school is associated with many economic benefits. Housing values are considerably higher and municipal infrastructure is more developed in small villages with schools (Wright, 2007). A small school is seen as a sign of hope for the future. New families and new children will move into an area with a school, whereas if a school is closed the area is less attractive for newcomers. Therefore, school closures have an impact on where families chose to live, property values and the pace of development.

Some of the studies which investigated parental perceptions found that parents may be more negative about multigrade than single grade classes (Walsh, 1989, Cornish, 2006). There may also be a difference in how long-term rural residents 'locals' and people who have moved into an area 'newcomers' make choices about schools (Cohen, 1982; Gerwirtz *et al*., 1995; Walker and Clark, 2010). It was found that locals chose the local school because it was the nearest school; some chose it because of their family ties with the school and others out of a sense of duty to support the local community. Newcomer parents have less allegiance to place and hence to the symbolic position that the school holds within the rural community. As a consequence the newcomers are more likely to shop around than the locals to find what they believe to be the 'right' school. Walker and Clark (2010) suggested there were three further factors – small school size, caring school ethos and one-to-one attention - which guided newcomer parents in their school choice.

Moreover, when parents are former past pupils of the school which their children attend, they are often likely to be more supportive of the school and to identify more closely with its ethos. Rural school success has also been attributed to a strong bond that has grown between the child and the teacher as they had spent several years working together (Korpinen, 1996, Barley and Beesley, 2007). Wood,

(2006) for example observed that 'local schooling reinforces identification with a community and friendships formed in the classroom may shape the social networks of a community for decades' (p. 9). By helping to establish social networks, the primary school plays a key role in engendering a sense of belonging and community and it may facilitate shared understanding and cooperation and a sense of shared identity (OECD, 2001). In the Irish context, the catchment area of the school coincides with the parish which adds uniquely to a child's sense of place and identity (Morgan and Ó Slatara, 2004).

The research of D'Amico and Nelson, (2000) indicates that teachers in small rural schools have a more positive outlook about their careers than colleagues in larger urban schools. Teachers may live in the community in which they work, may socialize in the community and do business there. Some teachers may feel a strong almost personal sense of responsibility to the community as it is easier to see how what happens in school affects the lives of the children. The teachers interviewed in a Graham, Paterson and Miller's, (2006) study also identified responsibility and accountability, personal and professional issues which pertained to teaching in rural locations. However, they also alluded to 'fishbowl' effects which may arise from them being always 'on show' in the community.

The emerging evolution of small schools across Europe outlined earlier in this chapter demonstrates how they have been threatened by shifts in demographic patterns, consequences of national policies and at times narrow political interests. It is generally the case even in countries with substantial rural areas that an urban model of schooling provides the dominant educational template and the place of the small school continues to look uncertain (Sigsworth and Solstad, 2005). In the Irish context phased adjustments in the staffing schedules of schools with less than 86 pupils introduced in 2012 have resulted in the threat of school closure. The resulting debate has been emotive centring on the implications for communities for whom the school is the last remaining symbol of public service. It is clear that small communities value their schools highly, particularly those who have already lost other community anchors such as shop, post office and Garda Station (Boland, 2011). The threat of school closure has forced many schools and communities to work together with the shared aim of keeping a school open. This in turn activates its community's social capital and a community with strong social capital can defend more strongly the services in its environment. Autti and Hryr-Beihammer (2014) warn that school

closures may negatively affect a community's social capita, as without a school, people have less opportunity to meet and interact. However, it is the most fragile communities, linguistically and culturally, that are most likely to suffer from such closures (Evans, 2005).

Leadership in Small Schools

Over the last two decades developments in the role of teaching principal have made it a complex one. There is a particular concern about the increasing legal obligations, higher expectations of pedagogical leadership, the management of macro-politics of parents, teachers and board members in addition to full-time teaching duties. A survey carried out by the Irish Primary Principals Network (Morgan and Ó Slatara, 2005) highlights clearly the effect of work overload for principals. When principals double up as mainstream class teachers, they recognise that the quality of teaching and learning in their own classroom often does not meet desired standards because of the escalating demands arising from their dual role. In a study of leadership undertaken in small Scottish primary schools, Wilson (2007) noted that that despite the changes that had occurred during the ten years between 1996 and 2006, the key elements of the role of principal of a small school remained largely the same. The essential nature of being a teaching principal of a small school is that effectively it entails undertaking two jobs: teaching and leading a school. The chief sentiment expressed by small school principals was one of juggling, with being pressed for time identified as a significant obstacle (Ryan, 2003).

Clark and Wildy (2004) stressed the unpredictable nature of leadership in a small school where teaching principals were called on to constantly adapt to the changing complexity of situations in which they worked. The complex role is in part due to the fact that principals in small schools lead multiple innovations and have only a small number of colleagues with whom to share the workload (Wilson and McPake, 2000). There is often a need for principals to significantly exceed normal school working hours in order to fulfil their duties and even when this is the case, there are some issues that may be attended to only during school hours which necessitates the principal leaving the classroom. There is a consequent interruption in class work which if it happens on a continual basis may be disruptive for children (Morgan and Ó Slatara, 2004). As a result, there is a lack of teachers prepared to take up the posts of

principalship, particularly in small schools which are increasingly seen as onerous and under-supported (Drea and O'Brien, 2001).

3.11 Whole School Evaluations: Primary School Inspector's Reports

The primary aim of this final section of the literature review on multigrade classes is to explore the extent to which the messages of current thinking on early years pedagogy discussed in the sections above are reflected in evaluations of practice in Irish multigrade classes contained in Whole School Evaluation (WSE) and Whole School Evaluation-Management, Leadership and Learning (WSE-MLL) reports. Twelve reports all published during the academic year 2013-2014 were included. The choice of reports aimed to include a similar range of schools to those chosen for the research study itself. These were two and three teacher schools which had pupil numbers between 17 and 66 and which were located in various geographical locations nationwide. In order to preserve the anonymity of the schools chosen and to avoid further highlighting what Inspectors believed to be poor practice in some of the schools, it was decided not to include names of the individual schools with the references for the WSE and WSE-MLL reports. These reports recount the Department of Education and Skills Inspectors' first-hand experience of the phenomenon of teaching and learning in multigrade classes. As such the WSE and WSE-MLL reports are here treated as 'literature' in its broadest sense, research which is both current and easily accessed on-line. In that vein, I considered that a content analysis on these reports would provide a valuable lens to interpret and reveal insight into how the DES views early years pedagogy in multigrade classes and how the Inspectorate guides and informs current parctice. Careful attention is also paid to the linguistic features in order to uncover nuances which may be important for interpreting the meaning of texts. The key questions, therefore, which are posed in the documents included

1. What are the dominant pedagogical discourses in the documents?
2. What assumptions are made about the nature of early years' pedagogy in multigrade classes?
3. What perspectives on how children are positioned, the status and agency of children is the language in the documents communicating?
4. What specific recommendations are made with regard to enhancing provision for Junior Infants in multigrade classes?

The promotion of quality is a paramount concern for all those involved in the educational system in Ireland (OECD, 2007). Primary schools, therefore, are subjected to a comprehensive inspection process. Responsibility for evaluating formal education provision in Ireland is assigned to the Inspectorate, a division of the DES. The WSE was introduced in to primary schools in 2003. Inspectors evaluate the overall work of the school under a number of themes, each of which is related to processes within the school. WSE specifically inspects the quality of school management, school planning, curriculum provision, learning and teaching in subjects and supports for inclusion. In 2013, A WSE-MLL was introduced to complement the existing evaluation system. The new model is intended to provide whole school evaluative information, advice on the quality of the school management and leadership, the quality of teaching, learning and assessment, and the schools' own planning and self-review. Reports of the WSE and the WSE-MLL are available on the website of the Department of Education and Skills. This next section focuses upon the Department of Education's inspection reports, arguably that part of the inspection process which has the most enduring impact upon a school.

Twelve reports all published during the academic year 2013-2014 were selected for inclusion in this literature review. The selection of reports aimed to include a similar range of schools to those chosen for the research study itself. These were two and three teacher schools which had pupil numbers between 17 and 66 and which were located in various geographical locations throughout Ireland. The selections included some WSE reports and some WSE-MLL reports. Two main types of information were included in the reports, namely, scalar evaluations about levels of quality and qualitative judgements which related to the intrinsic nature of educational events at these schools.

A significant proportion of the evaluations regarding the quality of teaching were made in scalar terms. The scalar evaluations seemed to be made on an axis ranging from 'poor' at one end to 'very good' at the other with intermediate points on the scale such as 'very effective,' 'commendable,' 'good' and 'satisfactory.' Generally, they are used to inform the reader of levels of performance. Scalar evaluations indicate which practices are satisfactory and which need attention.

The following extracts provide examples of the scalar judgements:

The overall quality of teaching in the mainstream setting is commendable with some excellent individual practices observed.

However, some of the practice observed was poor; for example lesson structure and pace was unsatisfactory with insufficient differentiation to meet pupils' needs

The overall quality of teaching is commendable with some skilful delivery of lessons observed during the evaluation.

Very effective systems are in place in the school to support emergent readers.

Some very good quality work in written English was observed in the junior classes.

In general, the quality of teaching in most lessons observed was good to very good.

In the junior classes, teaching in Mathematics was characterised by clear explanations, good questioning and appropriate activities in line with curriculum objectives.

Keywords used in these statements are crucial and the school is judged on how these words are presented. The more common key words in the extracts above are 'good' and 'very good' and seem to indicate the school is achieving an acceptable standard in the particular practice being described. There was little use of the word 'excellent' and 'poor'. Perhaps the reason for this is that these words are used judiciously by Inspectors and only in cases that merit a high level of praise or criticism. The comment in the series above show how teacher-led activities are privileged at the expense of child-centred participation. For example, the Mathematics lesson is described in terms of a teacher's 'clear explanations', attaining 'curriculum objectives' and 'good questioning'.

Contrasting with expressions of scalar evaluation, other expressions emerged which were more qualitative in nature. These qualitative judgements expressed more complex qualities, going beyond the descriptive, and working towards justifying and substantiating evaluations through a variety of techniques. The main techniques included (1) Direct advice where the Inspector offered a clear suggestion for improvement within the body of the report (2) Exemplification where particular events witnessed by the Inspector which served to support the main evaluation were isolated (3) Specific good practice or techniques praised which were aimed at distributing the practice more widely in the school (4) Personal judgements of

teachers where the Inspector acknowledged specific values or attitudes (Field *et al.*, 1998).

In all twelve reports, there were only two specific mentions of multigrade context. The first of these is contained in the quote set out below which is an example of direct advice for the practitioners

> *Mindful of the concentration spans of the different age groups, the capacity of older pupils to engage in independent research and collaborative work, the length of the infant day and the importance of learning through play at infant level, it is recommended that class timetables be reviewed in conjunction with the timetables for visiting personnel*

The school has had to make alterations in its timetabling arrangements to allow greater mix of grades in one classroom following a reduction in staffing. In the advice offered by the Inspectorate the discourse which emerges above appears to be closely aligned with a developmental perspective. The younger children are positioned as somehow participating in less important activities such as play because their concentration span is limited while the older children are involved in the significant work of 'independent research'.

Inspectors sometimes exemplify instances of good practice in the Infant classes. This, one assumes is to serve as a model for others to emulate. Examples of expressions in which this is done are set out below.

> *The wide variety of approaches observed in a minority of class settings should be extended on a whole school basis. Pair-work and group work are features of some lessons. Information and communications technologies (ICT) are also effectively used in some classes.*

Descriptions of good practice are often followed by some criticisms. The impact on the reader is to soften the blow of the negative comments, and to provide some reassurance and assistance regarding where to turn for support and guidance. Therefore, the presentation of good practice is often coupled with a recommendation to extend this practice across the school as a whole.

> *Additional use of collaborative methodologies is advised to further increase pupil participation during lessons in all classes. The school is now well positioned to extend the use of differentiated reading programmes to further enhance pupils' attainment in reading.*

There is practically no mention of any terms associated with multigrade classes and one has to search in WSE and WSE-MLL reports to discover what teaching approaches might be favoured by the Inspectors. The two terms 'collaboration' and 'differentiation' appear to be recommended and these could be interpreted as possibly useful in the multigrade context

> *It would be of benefit to extend this practice and to organise activities such as collaborative reading between different classes, using appropriate reading materials*
>
> *There is some scope for more collaborative work and work in pairs but this is an area that is developing well.*
>
> *Pupils have access to a very good school library and engage regularly in organised sessions of silent and collaborative reading*

In general, the Inspectors did not seem to be very familiar with multigrade practice and there is a lack of specificity in the reports; although the term collaboration is sometimes coupled with active learning as if one is as a result of the other.

> *Commendable use is made of collaborative-learning methodologies and the pupils are active in their learning.*
>
> *Praiseworthy use is made of collaborative-learning methodologies and the pupils are given opportunities to be active during their learning. Pupils play an active role in their learning*

As evidenced above, the reports give only a hint but no clear account of what would constitute recommended pedagogical practice in relation to collaboration. They do not explain how collaboration might be addressed in relation to mixed-age groups. Perhaps this is indicative of a lack of knowledge on the part of the inspector or it may be that reports are subject to a word length which limits the space in which the Inspector can expand on recommendations.

There was a practice in relation to grouping to which Inspectors' reports made frequent reference. In some multigrade schools, children have single grade instruction in literacy and/or numeracy with the Learning Support teacher. These classes take place outside of the classroom. Inspectors were particularly concerned with this practice and the impact it had, in their view, on learning support provision.

> *The practice of withdrawing pupils for daily support in Mathematics as whole class groups should be discontinued.*

Unfortunately this guidance did seem contradictory with the following statement:

> *It is suggested that, in collaboration with the learning-support teacher and the classroom assistant, the school timetable should facilitate teacher engagement with specific class groupings*

In this school, the Inspector seems to be advising that the learning support teacher is to teach class groups, leaving the teacher to engage with other class groups thus engaging with a practice they had discouraged in other reports.

The only strategy specifically recommended as useful in multigrade classes is the practice of differentiation:

> *Pupils' learning could be significantly enhanced by placing an increased emphasis on differentiating teaching and learning for pupils in composite class groups*

The practice was regularly mentioned and could be interpreted as having potential to inform diversity and promote learning across grades. In the Inspectors' reports there were regular references to differentiation as an 'effective' strategy in classroom settings

> *Writing tasks are appropriately differentiated*
>
> *Group work is very effectively organised to support differentiation and technology is skilfully used in the delivery of lessons.*
>
> *Approaches to literacy instruction (reading and writing) should be reviewed and developed at whole-school level and resources to support differentiated literacy instruction should be provided.*

In Learning Support mention was also made of differentiation as a means of aiding literacy development of pupils with special educational needs.

> *Current arrangements for learning support should be reviewed to ensure that pupils with the greatest learning needs receive appropriately differentiated support in small groups*
>
> *Particular emphasis should be placed on early intervention and on facilitating differentiated group-work.*
>
> *There is a clear focus on differentiating teaching and learning in line with the pupils' needs and abilities*

Inspectors were very concerned at what they perceived to be the over-reliance on textbooks, especially in relation to planning in multigrade schools. It appears that textbooks were being used quite commonly to dictate curriculum planning for multigrade teachers.

It is recommended that fortnightly short-term plans should be devised which focus on the specific objectives of the Primary School Curriculum (1999) rather than the range of textbooks in use.

There is a need also for more specific planning for differentiated learning activities in these documents with less emphasis on textbook activities.

The staff should review the role of the textbooks in the implementation of the Irish programme and it is recommended that the communication skills of pupils in other classes should be enhanced.

A further concern for Inspectors may be that textbooks appear to be determining the enacted curriculum and are being employed to ensure continuity between classes.

Textbooks, however, have a very strong influence on the order and content of the teaching. It would be of value to identify more clearly the content that is to be taught at each class level in order to guide progression in learning from class to class.

It is recommended that all plans and reports be based on curricular objectives and pupil learning outcomes rather than on textbook content or topics being addressed.

Less reliance on textbooks and greater flexibility in timetabling the teaching of Irish to the different class levels is recommended.

These comments also suggest that teachers are not using the curriculum guidelines in any extensive way and therefore they are being advised by Inspectors to move away from a text-book centred practice which may place unnecessary constraints on their flexibility.

Most of the reference to early years provision is in terms of early intervention for children with special educational needs.

Support is organised on a withdrawal basis and incorporates early intervention,

An early intervention programme is implemented effectively at infant class level. The areas of early intervention and prevention should be further developed.

As evidenced in Inspectors' remarks set out below, specific programmes are mentioned

The Ready, Set, Go-Maths programme is used successfully in the infant settings to develop pupils' early competencies in Mathematics some effective active teaching approaches are used to enhance pupil learning.

Elements of Literacy Lift Off are being introduced and station teaching is a welcome initiative in introducing differentiated instruction

The principles underlying Literacy Lift Off should be implemented in full in senior infants, first and second classes and a range of levelled readers should be provided

Although Aistear is commended in four of the schools, its success is measured in terms of implementation of curricular objectives in literacy. This suggests that Inspectors are not aware of the wider implications of the aims of Aistear.

Provision for Aistear: the Early Childhood Curriculum Framework is very effective.

There is highly proficient implementation of Aistear: the Early Childhood Curriculum Framework.

Very effective use is made of the Aistear framework in the infant classrooms.

Aistear, the Early Childhood Curriculum Framework, is effectively implemented in the junior room

The implementation of an early intervention programme such as Aistear would benefit pupil learning and support the School's Improvement Plan for literacy.

The competent implementation of the Aistear curriculum provides a holistic, integrated learning context for pupils where they develop a range of emergent literacy skills through play.

Furthermore, on the evidence of this study, it seems that neither the inspection process nor inspection reports are consistently underpinned by a body of specialist knowledge concerning the educational needs of children in the early years of primary school. For example, the use of language such as 'competent implementation' and 'very effective use' carry connotations of a structured programme and suggests that the inspectorate lacks familiarity with the complexities of early childhood practice in general and Aistear as a curriculum framework in particular. In order to carry out rigorous inspections of early years classrooms it would be assumed that Inspectors would have a thorough knowledge and understanding of all aspects of Aistear. This knowledge would enable Inspectors to give sufficient attention in their evaluations to the child-centred learning pedagogy of infant classes.

The Inspectors frequently validate the importance of the small school in their communities by highlighting the sense of collective identity and social networks which are formed and strengthened at school. In some instances the reports contain a

personal judgement of the teachers which is often coupled with the Inspector's acknowledgement of the strong bonds that exist between staff, Boards of Management and Parents' Association in these small schools. The discourse presented here is in keeping with the current image of the small school as a central part of the community (Johns *et al.*, 2000). For example, one school is reported as having

> *a strong sense of community permeates the work of the school and there is clear cooperation and respect between the board of management, the principal and the teachers. The school plays a vital role in community life and is valued by the board, the parents and the pupils.*

Another notes that

> *Links with the local community are maintained through pupils participating in and supporting local organisations and events.*

Inspectors affirm the role that the small primary school plays in engendering a sense of belonging in the community and the size of the school is referred to as being particularly suitable for developing close relationships

> *The teachers know individual pupils very well and they monitor pupils' progress closely*
>
> *The size of the school facilitates regular communication with individual parents*
>
> *There is a strong sense of common purpose among the school community.*
>
> *The school has a very welcoming atmosphere and the very strong pupil-teacher relationships characterise the ethos of the school.*

While there are frequent references to very positive interpersonal relationships between teachers and pupils, there does however remain an implicit assumption in the WSE and in the WSE-MLL reports that there is a level playing field for all children in the way teachers were able to establish positive learning atmospheres in schools. There is no acknowledgement that children bring differing levels of social and cultural capital which may influence this atmosphere as evidenced below.

> *The pupils present as friendly, courteous and very caring towards each other.*
>
> *The pupils are very well managed, are frequently affirmed and encouraged continuously to develop their particular skills and talents*

> *Pupil-teacher interactions are positive and respectful and pupils are well managed. The school fosters a positive, cooperative educational environment in which self-confidence, respect and life-long learning are nurtured.*

The Inspectors' remarks above are replete with neo-liberal discourse suggesting that the most important skill for teachers is to control the classroom. Children are affirmed for being 'courteous' and 'co-operative' with teachers who 'monitor' their progress carefully. The discourse constructed here proposes a Foucauldian perspective and surveillance procedures are explicit and implicit in the language of the reports. In using these terms, Inspectors seem to favour a view of child development based on Piagetian view of staged development, and pedagogical practice could be reduced to measuring children's success in specific areas. This contrasts with a sociocultural perspective foregrounded in more recent research on early childhood education. This latter viewpoint places value on the whole child interacting in her environment and rich in potential to contribute to her own learning as an agent building on her own experiential knowledge.

The WSE and WSE-MLL reports appear to promote more formal, structured learning environments in multigrade

> *In the junior classes the teaching style employed communicated high expectations to the pupils with regard to positive behaviour and active participation.*

For example, this teacher's practice was immersed in commentary that emphasised the importance of discipline and control. Classification of children into active workers was reinforced. Children were at all times watched and monitored and in relation to the exercise of power between teachers and children at school teachers seem to be legitimised in using practices to manage and control children.

In judging the value of the WSE and WSE-MLL reports as sources of data, an important question is whether or not the documents contain information and insights relevant to the research question (Merriman, 2009). In the case of the current research, this question must be answered in the negative. In general, there is an absence of mention of teaching in a multigrade context. There appears to be almost no evidence that the Inspectorate recognised the challenges of teaching in a multigrade context and little mention of the teaching strategies that might be employed in multigrade settings in the reports. Moreover, the extensive use of scalar judgements does not provide an in-depth, valid evaluation of the school and its overall provision. It must be borne in

mind however that the Inspectors' Reports are written to a template and must conform to a relatively short length between 4 and 7 pages (word length was approximately 1,300 to 2,300 words for each). A further concern is the duration of the inspection. The entire WSE or WSE-MLL process takes approximately three days with Inspectors spending approximately a half-day with each teacher. It would seem the length of these visits may not allow sufficient time to give vigorous and in-depth comment and advice on teaching and learning. Moreover, these constraints do not allow all aspects of the social world, social discourses and contestations that frame the participants' worlds to be included in the reports. However, the silence of Inspectors on these issues may also reveal how the ideological system is created and re-created based largely in this instance on what is left unsaid.

The discourse constructed in the WSE and WSE-MLL Inspectors' Reports appear to emanate from a Foucauldian perspective and surveillance procedures were explicit and implicit in the language of the reports. Inspectors appeared to favour a linear view of child development based on the Piagetian view of staged development and promoting a restrictive transmission approach with language such as 'delivery of lessons' which counters the notion of early childhood as a time for exploration. The comments made on Aistear further suggested that Inspectors were not aware of the wider implications of the philosophical underpinnings or the aims of the framework. The figured world of the multigrade classroom as glimpsed in the Inspectors' reports is largely a context for whole class interactions, with teachers leading learning and managing children. In this sense Junior Infants appear to be largely constrained by positional identities. Furthermore, the texts of Inspectors' reports show few opportunities to exert their agency appeared to be afforded to these children and neither are teachers encouraged to develop reciprocal learning relationships with their Infant class pupils. In general, there is almost no reference to teaching in a multigrade context and the dearth of recommendations on multigrade teaching emerges as a significant weakness of the reports.

3.12 Conclusion

In Ireland, small multigrade schools are an established feature of the primary school landscape especially in rural and remote areas beginning with the network of hedge schools over four hundred years ago. The tradition of multigrade schooling continues to be prevalent in Ireland where 31% of all primary schools are multigrade,

with a further 19% of schools having at least some multigrade classes (DES, 2013). However, current events of economic rationalisation have called into question the sustainability of small schools and the once again, the debate on amalgamations and closures of small schools has been re-opened. Those seeking to defend the position of the small school advocate that they perform at least as well as larger schools (OfSted, 2000) and as they occupy a place at the heart of their communities, generate unique relationships and interactions between the members of these communities (Morgan and Ó Slatara, 2004, 2005; INTO, 2011). Therefore the sociocultural frame of this study enhances an understanding of these societal and cultural influences on identity constructions of Junior Infants by providing informed insight into their everyday world in the small school.

While the research evidence in this chapter suggests that pupils attending small schools achieve similar educational outcomes to those in larger schools, it is also acknowledged that teaching is somewhat different in multigrade classes compared to single grade classes (Veenmann, 1995). There is generally an accepted belief that the pedagogy of the multigrade class is a complex activity and requires teachers to possess a wide range of organisational and instructional skills (Mulryan-Kyne, 2004). However, a critique of multigrade practice which emerges from the research suggests that pedagogical approaches adopted by teachers are very similar to those in use in single grade classes, though the contexts are quite different. Pupils are not generally grouped across grades even though it has been shown that teaching across grades increases time for sustained interaction with children while reducing the amount of time children spend without the direct attention of their teacher (Veenmann, 1995). Inspectors' reports note that there is an over-reliance on textbooks to the extent that they appear to be determining the enacted curriculum in the classroom (DES, 2013). Curriculum implementation in multigrade classes which already requires considerable extra work for the teacher in terms of classroom planning and resource management becomes even more challenging when teachers are faced with large and increasingly diverse classes.

A content analysis of WSE and WSE-MLL reports shows that the Department of Education Inspectorate do not in general draw attention to the issue of multigrade in their evaluations and seem to offer little advice or support to teachers in such classes. These issues are compounded by a lack of initial teacher education for multigrade contexts and an absence of ongoing support for continuous professional

development in curricular areas pertaining to multigrade settings in particular (Mulryan-Kyne, 2007; Turner, 2008). It could be argued that the absence of organised and official support structures and the silence of the DES on pedagogical practice in multigrade classes leave teachers bereft of skills necessary for such classes which perhaps results in them reverting to didactic and formal teaching methodologies.

Research evidence shows that teaching and learning in the early years multigrade classroom also takes place within a framework of graded curricula where expectations of children's cognitive development are strongly linked to their grade level (Pratt, 1986). Teachers report that one of their dilemmas is to make provision for early years curricula while also teaching a more objective-led curriculum for the older children. Irrespective of the central position allocated to Junior Infant children in early childhood policy, the reality of multigrade classroom seems to suggest that they are often forced to the margins of practice. However, there is some evidence that younger children can benefit cognitively when they engage in cross age activity with older children (Berry and Little, 2006; Pridmore, 2007). There is also the potential for younger children to engage in more complex play activities in mixed age settings (Katz, 1995).

The two literature review chapters provide insight into research in the area in Irish and international contexts as well as providing perspective into the theoretical framework employed in the study. The research evidence clearly underscores the importance of how teachers of young children frame their pedagogical practice and interact with young children within understandings of the child as active agent in the construction of knowledge. For teachers of Junior Infants in multigrade classes it is clear there are factors which influence this practice and how they shape their practice will in turn influence how the identities of the Junior Infants will be constructed in their settings. The extra dynamic which contributes to the process of identity formation is the presence of older children with whom younger children interact and learn. My study explores an ever-changing and fluid vision of teaching and learning which hangs on hooks of pedagogy, identity formation and shifting power dynamics.

CHAPTER FOUR: RESEARCH DESIGN

4.1 Introduction

The overall aim of this research was to undertake a sustained and detailed study of the pedagogical practices in use with Junior Infant classes in multigrade settings and to understand more fully how the children, their teachers and parents experienced these pedagogies. Implicit in this aim is the importance of listening to teachers', children's and parents' perspectives of learning and teaching in multigrade classrooms. Therefore, a collaborative relationship with the participating teachers, parents and children was crucial, so that we could build a relationship of trust in order to share ideas. Focus was also given to selecting methodology that is consistent with contemporary sociocultural theory as outlined in Chapter Two and sociocultural concepts that children, parents and teachers are active agents positioned in certain social structures guided the research ethos and approach.

4.2 Research Questions

The key research questions of the study were:

1. How are early childhood pedagogical practices enacted by teachers and interpreted by parents/caregivers of Junior Infant classes in multigrade schools?
2. What are the beliefs of teachers in the multigrade class of factors that constrain or support them in their efforts to implement early childhood pedagogy according to the sociocultural principles outlined in the Revised Primary School Curriculum (1999)?
3. How do Junior Infant pupils construct identities as learners in the multigrade classroom?
4. How are Junior Infant pupils positioned by the teacher, peers and older children within the classroom culture of multigrade schools?

The impact of a multigrade setting on the implementation of early childhood pedagogy was investigated the earlier chapters of this study. Evidence suggests that teachers of pupils in the Junior Infant classes of multigrade schools face great challenges in attempting to implement early childhood pedagogy in their classrooms (Mulryan-Kyne, 2007). As young children in multigrade settings are caught between an informal and a more structured approach to pedagogy, I sought to investigate whether the teacher reverted to didactic and formal approach in such cases and, if so, to explicate the contributory factors involved. Studies of teachers' beliefs and theories reveal that there is a direct link between what teachers believe and what they practise in the classroom (Clark and Peterson, 1986). Spodek (1988) for example, analysed the beliefs of early childhood teachers and argued that in order to understand the nature of teachers' practices in the classroom one must understand the teachers' thought processes regarding teaching and the implicit theoretical systems that underpin such processes. As the researcher, I also sought the 'insiders' perspective' of the children and their parents and therefore was engaged with all those who were directly involved with the happenings in the multigrade classroom (Anderson-Levitt, 2006).

The framework for situating this study is offered by Wenger, (2010) and is built around the dynamic interplay of two axes of power inherent in every institutional context. Wenger (2010, p. 14) distinguishes these as: 'Vertical Accountability' and 'Horizontal Accountability'. Vertical accountability is associated with traditional hierarchies such as decisional authorities, policies, regulations whereas horizontal accountability structures focus on micro-levels and refer to community networks, engagement in peer to peer learning conversations and formation of identities. Although accountability exists on both dimensions there are inherent tensions in the interplay between the two perspectives. This study is situated at the interface between vertical and horizontal accountabilities, an intersection described by Wenger (2010) as 'transversality'. In Mathematics transversality is a notion that describes how spaces can intersect; Wenger (2010, p.14) uses it in referring to 'the ability to increase the visibility and integration between the vertical and horizontal structures' in social learning systems. Figure 4.1 below outlines the vertical and horizontal accountabilities while Figure 4.2 outlines the accountabilities considered in this study.

Figure 4.1 Vertical and horizontal accountability: The need for transversality (Wenger, 2012)

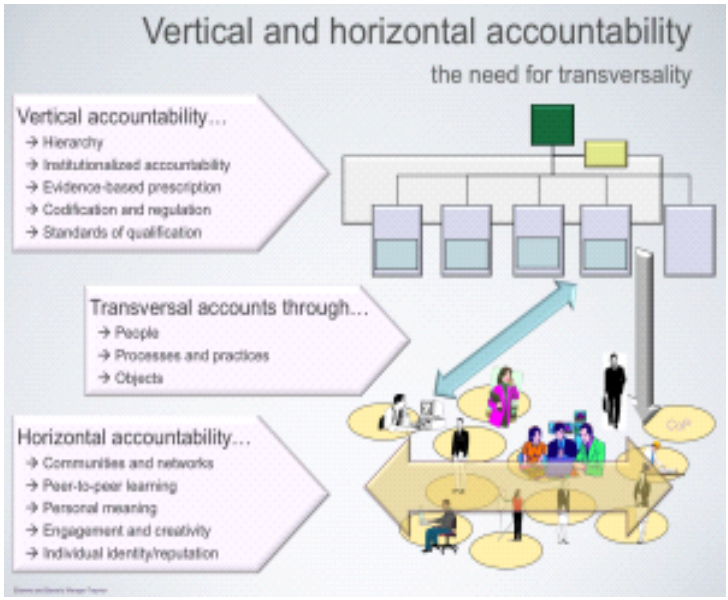
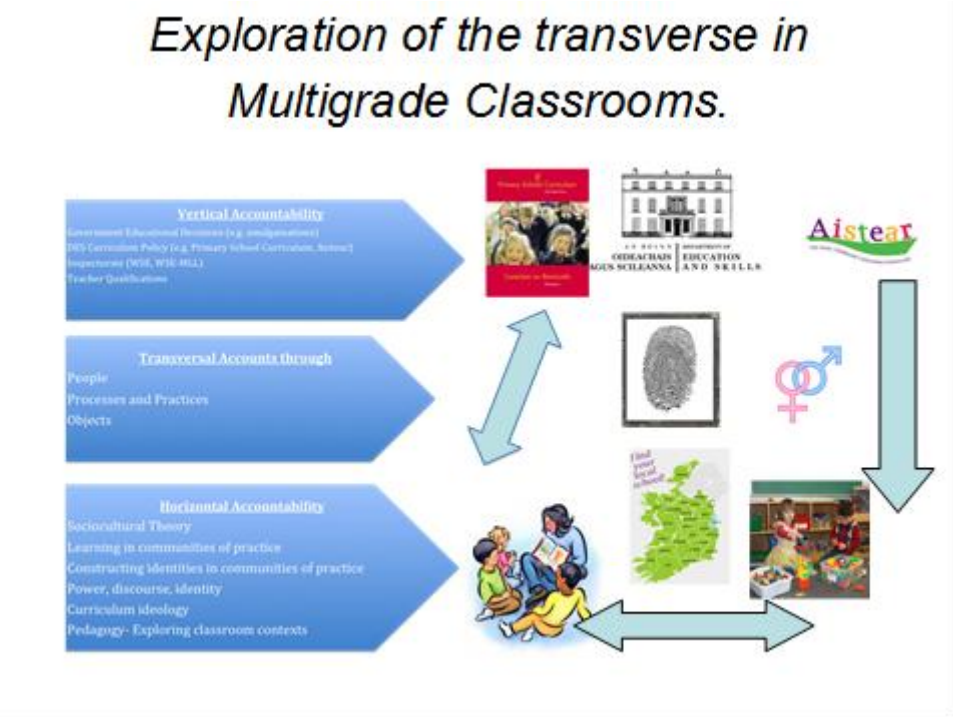


Figure 4.2 Vertical and horizontal accountability: Exploration of the transverse in Multigrade Classrooms. (O'Driscoll, 2014)



4.3 Constructivist Research Paradigm

Common to all sociocultural approaches to research, is the idea that the individual cannot be understood in isolation from the context in which s/he is located and, therefore, a methodology which seeks to research individuals in their everyday social situations is called for. To do this effectively, there is a need to observe the different practices in which an individual participates through his or her daily life. In particular, developing an understanding of the societal, institutional and personal perspectives is important and enables the analysis of how individuals develop as they interact with other participants in a particular setting. Documenting the practices of the setting gives an improved understanding of the conditions the setting provides for interaction and activity while documenting the relations between the different perspectives provides for a richer and more clearly-articulated study of the social situation of children's development and agency (Fleer & Richardson, 2004).

By taking such a view of research, I wish to argue for a methodology for studying children's learning in everyday situations by considering both the perspective of the child and the teacher and by actively examining the relationship between these perspectives. However, Guba and Lincoln (1994, p. 105) in pointing out the importance of linking methodological choices to philosophical paradigms, note that 'questions of method are secondary to questions of paradigm'. Therefore, before discussing the more specific choice of methods to be used in this inquiry, it is necessary to interrogate the paradigm that underpins the research.

According to MacKenzie and Knipe (2006) a paradigm is a theoretical framework. A paradigm is defined by Guba and Lincoln (1994, p. 105) as a 'basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways.' Thus, it is clear that a choice of paradigm frames both what is believed to be the nature of knowledge and the methodology used to investigate this knowledge. Mertens (2005) suggests that the four main paradigms that form the basis of research in the social sciences are the postpositivist, constructivist, transformative and pragmatic approaches and although each paradigm is a specific collection of beliefs about the nature of knowledge and the best ways of understanding it, sometimes the lines between each paradigm are not altogether clear in practice.

It is the constructivist research paradigm which informs this research study. An alternative label for this paradigm is interpretivist (Hughes, 2001) and is used interchangeably throughout this chapter. In order to explicate this paradigm more fully it is necessary to provide the answers for three questions selected by Guba and Lincoln (1994, p. 108) that help define a paradigm:

1. The ontological question: 'What is the nature of reality?'
2. The epistemological question: 'What is the nature of the relationship between the knower and the would-be knower and what can be known?'
3. The methodological question: 'How can the researcher go about finding out whatever is to be known?'

As a constructivist researcher, I hold the ontological point of view which claims there can be no single way of perceiving the world. Although I believe that reality is constructed in the mind of the individual, I would also adhere to the constructivist position that assumes multiple and equally valid realities exist. In this study, teachers, children and parents were allowed to express how they felt about the pedagogy they practise, experience and interpret in their own individual ways. This view is in direct contrast to postpositivist perspectives that hold that knowledge produced by scientific inquiries is objective knowledge and is untainted by the researcher's own subjectivity. In the constructivist paradigm notions of objectivity and control in research are replaced with thinking about subjectivity and understanding. Such a subjective view assumes that, depending on people's view of reality, their meanings can also change and while multiple views of reality exist, some of these may be in conflict with each other. Research from a constructivist perspective may be criticised for failing to consider in any great detail the influence of social, political, cultural, economic, ethnic, gender and disability values in the construction of reality as is the case with research in the transformative paradigm. Therefore, as a constructivist researcher, I realise I must also be cognisant of what is assumed to be "real" and this must also be examined for its role in maintaining social structures.

Epistemology refers to the relationship between the knower and the would-be-known (Mertens, 2005). As a researcher in the constructivist paradigm, I argue for a strong connection between the two, i.e. where knowledge is created in dialogue and in other forms of joint activity and an important feature of this study was the co-construction of knowledge through collaborative participation by practitioners,

parents, children and the researcher. The analysis of my inquiry emphasised the socially-constructed nature of reality, arguing that knowledge is gained through interpretation of how participants make sense of their sociocultural contexts and activities. In keeping with the sociocultural theoretical underpinnings of the study, I entered the world of the teachers, children and parents in an attempt to describe and understand the contextualised social phenomena I found there.

A constructivist approach to methodology is underpinned by the notion that reality is a social construction created between the people active in the research process, that is, the observer and the observed (Mertens, 2005). Essentially, as a constructivist researcher I took a hermeneutical approach maintaining that meaning is hidden and must be brought to the surface through deep reflection (Schwandt, 2000). This in turn necessitated an exploration of the perspectives of a variety of people on early childhood pedagogy in a multigrade setting. Therefore, the methodology was multi-method in focus involving an interpretive approach conducted through interaction between and among the researcher and participants (Guba and Lincoln 1994). The data collection strategies used in this inquiry included interview, observation and questionnaire.

4.4 Research Strategy

Newby (2010) suggests that there are three main research approaches: quantitative, qualitative and mixed methods. Quantitative research can be used to deal with probabilities, while qualitative research is needed to understand how to change a situation because it can be used to deal with people's perceptions. A mixed method approach is one in which both quantitative and qualitative methods are used to answer research questions in a single study. In designing the mixed methods approach of this study, it was necessary at first to consider the relevant characteristics of both qualitative and quantitative research which could influence the inquiry.

Qualitative Research

There were three characteristics of qualitative research which were considered particularly important in this study. First, it is noted that qualitative data lends itself to providing an understanding of the participants' explanation of a complex phenomenon in their personal words and describes in rich detail the phenomena as they are situated and embedded in local contexts. Denzin and Lincoln (2011) noted the most widely

known characteristic of qualitative research is that it is to 'study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meaning people bring to them' (Denzin and Lincoln, 2011, p. 3). The focus of this study was on gaining an understanding of how teachers and children in Junior Infant classes made sense of their experiences in multigrade schools. The use of qualitative methods prompted me to locate the research in the natural setting of the multigrade classroom in an effort to understand the nature of that setting and what it meant for participants to be in there. Therefore, a key concern was to gain an insider's understanding of early childhood pedagogy. This was gained from the perspective of the children, teacher and parents involved in the settings.

A second characteristic of qualitative methodology is that the process is inductive, that is, the researcher could gather data to build concepts from observations and intuitive understandings gleaned from being in the field. This process was in contrast to the deductive reasoning used in other parts of the study. The use of both inductive and deductive reasoning in data analysis contributed to the construction of a more complete picture in the findings of this study.

Finally, the importance of the technique of reflexivity is important to qualitative studies (Edwards, 2001) and is considered to be very relevant to this inquiry. The study combined a large scale questionnaire with case studies in a mixed method design. This methodology ensured that the construction of the final questionnaire survey was informed by issues uncovered in the field sensitive case study and as the case study was still ongoing, I was also in a position to explore some of the issues which emerged from the initial analysis of the survey with the teachers in the case study schools. The Reflexivity allows for the fact that the researcher understands their impact on the study (Edwards, 2001) and having revealed my starting points both personal and theoretical in other areas of this thesis, I attempted to gather the best quality evidence from the field and to subject it to rigorous analysis. Moreover, it was vital I undertook to reflect on the research process after each session of field work. I found this to be helpful in assessing my own bias, in fine-tuning the methodology where appropriate and especially in working on the analysis of the data.

Quantitative Research.

The major characteristics of quantitative research considered relevant in this study were its focus on standardized data collection, explanation and confirmation. As

the study was the first major investigation into early childhood practice in multigrade schools in the Republic of Ireland, it was decided to distribute the research sample more widely geographically and a large scale investigation into practice in existence across the country was decided upon. The use of a questionnaire allowed a large number of respondents to provide insight into early childhood pedagogical practice in multigrade classrooms. In this way there was integration of both macro and micro aspects of the research.

Mixed Methods

The basic assumption of mixed methods research is that the use of both quantitative and qualitative methods in combination provide a better understanding of the research problem than either method by itself (Creswell, Plano Clark, Gutmann, and Hanson, 2003). Tashakkori and Teddlie (2003, p. 711) define mixed methods as 'a type of research design in which qualitative and quantitative approaches are used in types of questions, research methods, data collection and analysis procedures and/or inferences'. Mertens (2005) notes that mixed methods are useful when the research aim is to explore alternative perspectives for understanding phenomena. However, mixed methods research is not simply collecting of two distinct strands of research but the strength of the approach lies in the merging, integrating and linking of the different perspectives.

Having considered the strengths and weaknesses of both qualitative and quantitative approaches to research, an eclectic approach to method selection was decided upon for the following reasons. First, I was able to examine multiple research perspectives concurrently. Through widening the scope of the investigation I believe that I was able to capture a more comprehensive picture of human behaviour and experience (Tashakkori and Teddlie, 2003) through building on the strengths of both qualitative and quantitative data.

Second, the adoption of mixed method design reinforces research interpretations allowing research findings to be supported, strengthened and more comprehensively understood (Creswell *et al.,* 2003). The quantitative data gathered was statistically analyzed and provided useful information in describing trends about the larger group of multigrade teachers. However, the qualitative data offered many different perspectives on the topic and provided a more complex and nuanced picture of the multigrade classroom.

Finally, the use of mixed method research which promoted convergence and corroboration of findings provided comprehensive evidence to strengthen the conclusion in this study. While a constructivist approach to research tends to rely on qualitative data collection methods this study is further supported by the use of quantitative methods. Quantitative data methods allowed for a wider range of participants' views to be gathered and the quantitative data gathered for the study was utilised in a way that supported and expanded upon the qualitative data effectively deepening the description. Therefore, although a qualitative account is the major focus of this study, it was enhanced by supporting quantitative evidence which was frequently used to further interrogate the account and the triangulation of quantitative and qualitative data added an insight and understanding that might otherwise be missed if only a single method were used.

4.5 Research Design

The overall study used a concurrent triangulation mixed-methods design (Creswell *et al*., 2003) in which both qualitative and quantitative data were collected and analyzed to inform the research findings. The research study explored the early years pedagogical practices in use in multigrade situations by undertaking observations focussing in a targeted sample of multigrade classrooms. The views of the teachers, Junior Infant pupils and their parents were also investigated using appropriate semi-structured interviews. Further to this, a quantitative survey designed to collect information on a broader, more representative sample of teachers of Junior Infants in multigrade settings was also carried out. The final conclusions were based on both phases of the study. This mixed method study capitalized on the strengths of both qualitative and quantitative methods to ensure validity and reliability in the research and to enrich the overall picture of Junior Infant learning in multigrade classes that the study hoped to provide. The details of how different methods were used to corroborate findings are outlined in the next section.

The Case Study

A qualitative case study is particularly useful in conducting interpretive research allowing the researcher to collect intensively detailed knowledge about a single 'case' in a 'real life' context with a view to providing an in-depth account of events, relationships, experiences and processes occurring in the particular instances

(Yin, 2008). In this research study a qualitative case study was chosen to provide insight into the day to day reality of life in the multigrade classroom. The purpose of this research was to construct a multiple-case study including a focus on eight individual schools examining sociocultural aspects of Junior Infants learning in multigrade classrooms. Multiple sources of evidence including participants' views, accounts of social and cultural situations and the discourses and meanings underlying these have contributed to a more in-depth understanding of the events in this study.

The focus of case study research is on the object of the study and the foremost concern in carrying out case study research is on generating knowledge of the particular. The logic behind focussing attention on a small number of cases is that insight can be gained that can have wider implications. The aim is to 'illuminate the general by looking at the particular' (Denscombe, 2010, p. 53). Flybjerg (2006, p. 221) notes that the fact that 'one cannot generalize on the basis of a single case is usually to be considered devastating to the case study as a scientific method'. However, Flyjberg (2006) argues that formal generalizations based on large samples are overrated in their contribution to scientific progress and in addition he cites single cases, such as the experiments, and experiences of Galileo, Newton, Einstein, Bohr, Darwin, Marx, and Freud to point out that both human and natural sciences can be advanced by a single case.

Cohen, Manion and Morrison (2007) suggest that case studies can enlighten phenomena not always readily understood by numerical analysis. For this reason case studies were chosen to provide fine grain detail that complemented the broader detail achieved from the questionnaire findings in this study. One of the aims of the inquiry was to focus on individual teachers, parents and children in Junior Infant classrooms in multigrade schools seeking to understand their perception of events that took place in their settings. The case studies focus provided insight into the lived experience of children, teachers and parents as it allowed me to make direct observations and to gather data in the natural context of the classroom.

The case study approach works well in understanding the interconnected and interrelated nature of relationships and processes within social settings. It can deal with complexity and give sufficient detail to illuminate how the many parts of a case are linked and how they may affect one another. The real value of case study in this research is that it offers the opportunity to explain why certain outcomes may happen. For example, the intricate details of grouping strategies in the multigrade classroom,

curriculum implementation, relationships between Junior Infants and their older classmates as well as with their teachers are explored and integrated with detailed descriptions of how classroom situations emerge as they do. The case study approach is particularly useful as part of this mixed methods study as it encourages the use of a variety of research methods which capture the complex reality under investigation (Denscombe, 2010). Observations of events within the case study settings were combined with interviews with children teacher and parents as data collection methods used to investigate relationships and processes.

Case studies have been found to be particularly useful in blending a description of events with the analysis of them. The key skill for researchers employing the case study method is to pursue data analysis while still collecting data (Yin, 2008). It was especially important for me to master the intricacies of collecting the data while remaining flexible enough to follow unexpected leads when unanticipated events occurred. To maintain an inquiring mind during data collection Yin (2008) advised that a case study researcher should be able to ask good questions and then listen well in order to assimilate the information without bias. In this research study it was necessary to read between the lines and to look for corroborating evidence to back up new findings while working within the framework of the original research design. The use of a research diary as a place to record changing interpretations of the field of study over the period of data collection was particularly beneficial.

Case Study Design

This research study sought to look systematically at the lived experiences of teachers and children in multigrade primary schools by collecting data within their own specific contexts. Therefore, the 'case' for this study was the multigrade school. In order to ascertain the ways in which the context of the multigrade setting constrained or supported teaching and learning, the researcher decided to focus on schools with two and three teachers. In this instance a teacher generally has responsibility for three or four grades and teaches children in an age range from 4 to 9 years. Schools of this size can have up to eighty six pupils on roll.

The inquiry was designed as a multiple-case design. A multiple-case study design is one that contains more than one case and offered a number of advantages for the research. Having a multiple-case design served to strengthen the findings from the

study as a whole as the evidence from multiple cases is more compelling than that of a single case. I was also aware of the danger of undertaking too many cases which might adversely affect the depth and quality of the data obtained. With the 'depth versus breadth trade-off' in mind (Johnson and Christensen, 2008, p. 409), I decided that eight cases would provide the necessary detail within the resources and time available.

Purposeful sampling was used in the selection of suitable cases for this study. Patton (2002) argues that the power of purposeful sampling lies in selecting 'information-rich' cases for study. With this in mind, a maximum variation of cases was selected in the Munster region. These included urban and rural schools, DEIS and non-DEIS schools and schools where class size varied. The schools also varied in their religious ethos but this was not a criterion at the time of selection and did not prove to be a determining feature in the analysis of data in the study. Initially, information letters were sent to the Principal and Boards of Management of the selected schools in order to gain their consent for the study to take place in their school. Once approval was attained from the management of the schools, teachers and parents were contacted to seek their consent to participate in the study. The information letters and consent forms are included in Appendices 4 and 5 of this study. The selection of cases, pupils, teachers, SNAs and parents are presented in Table 4.1 below.

Table 4.1: Case study schools, teachers, children, SNAs and parents

Case 1 (Abbeytrasna N.S.): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Orla	Patsy Nora	Fiona	11	2	Rachel Jim	Snr Infs Toby Nadine 1st class Ryan Shane 2nd class Maeve Cian Thomas	Margaret (Rachel) Sandy (Jim)
Case 2 (Cashelbeag N.S.): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Edel	Aileen	Noreen	24	5	John David Ava Joanne Ben	Snr Infs Norma Paddy Matthew 2nd class Shane	Tricia (John) Yvonne (Ben)

						Maeve Kevin	
Case 3 (Drumleathan N.S.): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Maureen		Hilda	30	3	Sheila Linda Kate	1st class Tadhg Marion 2nd class Ivan Ian	Valerie (Kate)
Case 4 (Scoil Eirne): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Jane	Rose	Fidelma	12	2	Clodagh Darren	Snr Infs Sally Kieran Isabelle 1st class Katherine Rebecca 2nd class Ryan Evan Heather	Declan (Clodagh)
Case 5 (Gortglas N.S.): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Deirdre			24	8	Eve Allanah Áine Réidín Tyrone Greg Seán	1st class Pat Jason 2nd class Miriam Conor	No parents interviewed
Case 6 (Kildubh N.S.): Three grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Ann		Claire	19	7	Evan Edward Colm Elma Niamh Cathal Brian	1st class Aoibhinn Bill	Mary (Colm)
Case 7 (Scoil Rathóg): Three grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Martha			22	7	Jessie Megan Caoimhe Alison Danny Fionn Hugh	Snr Infs Paula	Cara (Megan) Denise (Danny) Barbara (Fionn)

Case 8 (Ballyglen N.S.): Three grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Bridget			22	7	Sarah Emma Noah Oisín	1st class Jerry	Bernice (Emma) Danielle (Sarah) Gina (Noah)

*Please note only the children and adults in the vignettes in Chapter 5 are named here. Hence the discrepancy between the actual number of children and adults in the classroom and those named in Table 4.1.

**Please note that all names used in the Case Study are pseudonyms

4.6 Data Collection: Qualitative Methods

Observation

In this study, observation was used as a key method for studying children's learning in everyday situations by considering both the perspective of the child and the teacher and by actively examining the relationship between these perspectives. Observation was chosen as an effective way of recording what actually happens in the life of an individual child during the fieldwork period. Through experiencing life at first hand in the classroom, I was in a position to see as the child sees and hear as the child hears which enabled me to build a picture of the reality of classroom life.

Observations can vary across a number of dimensions. One way in which a distinction is made is the type of observation being conducted and the degree to which the researcher is part of the actual observation. Johnson and Christensen (2008) have identified four types of observation depending on the extent of participation involved. These include (1) complete participation (2) participant as observer (3) observer as participant (4) complete observer. In this study, I located myself as 'participant as observer'. In other words, although I spent a considerable amount of time with the children, it was clear from the beginning that I was conducting research. I attempted to remain as inconspicuous as possible and establish an identity as someone who was a friendly person wishing to learn more about the children's learning. I believed this identity would best balance power in favour of the children and encourage them to be open with me in the research process. I also remained aware of my own influence on the learning interactions in the classroom.

Observations were carried out using the Narrative/Free Descriptions method which allowed for the complexity of children's experiences in classes to be recorded and as a result a comprehensive picture of classroom life was built up over a

prolonged period. Narrative observations were utilised to provide detail of what the Junior Infants were involved in doing. The range of activities, the levels of interaction with the older children, their peers and the adults were recorded. This method enabled me to record as much information as possible throughout the observation period including the context of the activity, the child's facial expression etc. I supplemented these direct observations with field notes describing the classroom layout, furniture, displays, equipment, storage and outdoor provision. I recorded every aspect of classroom life that I thought might have relevance or significance in the inquiry.

Critics of participant observation as a data gathering technique highlight the subjective and potentially unreliable nature of human perception and I was aware that to lessen my bias I needed to learn to be a careful systematic observer (Merriman, 2009). Therefore, I used the broad framework of the 'Target Child Observation Schedule' to give structure to my initial three visits in each classroom. In the Target Child Observation Schedule which was developed by Sylva, Painter and Roy (1980) for use in their observation study of nursery schools, the chosen child is observed unobtrusively as she goes about her normal routine in the classroom. In my fieldwork I observed the target child for approximately 20 minutes and I kept a detailed record of what the child was doing, with whom she was interacting and what she was saying for each 30 seconds of observation. The target child method allowed me to capture broad sequences of behaviour and their consequences and thus, the format of the observation schedule allowed for linking observations with sociocultural aspects of learning which provided the framework of this study. The Target Child Observation Schedule and an extract from an observation are included in Appendix 3.

Each of the eight case study schools was visited approximately twice a month for the period of one school year. The Junior Infant pupils were observed on each visit I made to the school and observations took place at various times during the school day. The aim was to study meaningful interactions of participants involved in a community of practice with a minimum amount of obstruction and intervention and to capture the lived experiences of the participants as they constructed their learning stories. In total 125 observations were made of 41 Junior Infant pupils over the 58 school visits carried out for this research study.

Interviews

Constructivist or interpretive research facilitates the use of the socio-cultural lens as this genre of research enables interpretation of sociocultural contexts. The use of an interpretive inquiry approach maintains a consistency with the sociocultural theoretical framing this study. Such a view is also reflected in methodological considerations of the study where data gathering was primarily conducted through dialogue with teachers, parents and children. The teachers, parents and children were considered as insiders and every opportunity was provided to construct a discourse which moved beyond surface talk to a rich discussion of thoughts and beliefs.

Kvale (2006) warns against the interview process being seen as an inherently reciprocal process between the researcher and the participant. He argues that an interview is not an open and dominance free dialogue between egalitarian partners but a 'specific hierarchical and instrumental form of conversation where the interviewer sets the stage and scripts in accord with his or her research interests' (Kvale, 2006, p. 485). While being aware of the power dynamics that existed in the interviewing process, I held the view that interviewing is a constructive method of qualitative research and had the ability to generate honest opinions and genuine conversation.

The case study methodology adopted involved the design, piloting and administration of interview schedules to establish the perspectives of children, teachers and parents and to uncover the meaning of their experiences. According to Hatch (2002b, p.91) 'qualitative researchers use interviews to uncover the meaning structures that participants use to organize experiences and make sense of their worlds'. The types of interviews used in this research were semi-structured and unstructured which were based on the procedure as outlined by Kvale and Brinkman (2009). These were carried out in seven method stages: thematizing, designing the interview guide so it addresses the research questions, the interview itself, transcribing, analysing, verification and reporting. The interviews were characterized by a methodological awareness of question forms and a focus on the dynamics of interaction between me and the participants. A pilot study of all interviews; with teachers, parents and with children was carried out in year one of the data gathering phase and is outlined later in this chapter.

I

Interviews with Teachers

Since a basic assumption of conducting in-depth interviews is that the meaning people interpret from their experience affects the way they carry out that experience, the intent of scheduling interviews for this project was to capture the participant teachers' explanations, feelings, motivations and concerns regarding the early childhood pedagogical practices employed in the classroom (Seidman, 2006). I decided to adopt an unstructured or 'non-standardised' approach (Fielding & Thomas, 2008, p. 247) where the questions were based on what emerged during the classroom observations. The interviews proceeded more like conversations or discussions with questions being asked as themes and topics emerged naturally and the teachers were free to respond as well as lead the discussion as they wished. When applicable, prompts and probes (Hatch, 2002b) were inserted to encourage participants to provide more information and/or examples about topical areas introduced during the various sections of the interview. The interview schedule for teachers is contained in Appendix 4.

Once the teachers began to share their thoughts on the impact of the multigrade setting on young children's learning some evidence of their deeper pedagogical values emerged. It was as Jensen, Foster and Eddy (1997, p. 863) suggest that through having opportunities to talk about practice or tell stories about daily experiences, practitioners began to 'locate their voices and become more aware of their pedagogical intentions'. In order to elicit this level of response from participants, each interview was conducted in a naturalistic setting and I took notes to document what was said. The establishment of mutual respect and trust with participants was also a key element of this study so it was important to spend time building a relationship with the participants.

Interviews with Parents

Semi-structured interviews containing a mixture of both open and closed questions were carried out with parents on their interpretation of elements of early childhood pedagogy in the multigrade classroom. Some of these interviews were carried out in focus groups as is detailed in Table 4.3 below. It was decided that focus groups were a potentially useful method of data collection with parents because they permit participants to openly discuss their beliefs without feeling targeted, which can occur in a one-on-one interview (Johnson and Christensen, 2008). Also, focus groups

enable researchers to gain insight into complex issues (Keim, Swanson, Cann, & Salinas, 1999). My role in the focus group became one of facilitator of the discussion, using more open-ended questions which allowed for participants to dictate the content and direction of the discussion, within the broad framework provided. (The interview guide for parents is contained in Appendix 5). Interviews with parents were approximately 45 minutes in length and each interview was audio-taped. I issued invitations to parents of all the Junior Infant children in the case study schools and nineteen agreed to participate (see Appendix 6). Subsequently, two parents were unable to participate, so, in total seventeen parents were interviewed in the case study schools (one male and sixteen females). Parents were given a choice as to whether they wished to be interviewed individually or in focus groups. Four focus group and four individual interviews were carried out with the parents.

Interviews with Children

The overall purpose of talking to children in this inquiry was to encourage them to think about a variety of activities in which they participated. This gave the researcher some insight into their engagement in learning. I was interested in whether the children would reveal why they were involved in an activity, whether the activity had provided them with a challenge and the degree of joint involvement there had been with others (peers, older children or teachers). Interviews were carried out with the children in focus groups.

Most researchers agree that interviewing young children requires a special degree of preparation and provision so they can talk freely and feel relaxed in the situation (Brooker, 2001).With this in mind, I reflected well on preparatory processes before encountering the young children in this study to ensure the approach to interviewing them was child-focused. (Copies of Parent Consent and Child Assent forms are included in Appendix 6 of this thesis and the interview schedule for the children's interview is contained in Appendix 7). A number of strategies have commonly been used to make the interview child-friendly. These included having a list of prompts related to points of focus to act as 'possible lines of enquiry' as is suggested by Wilson and Powell (2001, p. 27). In addition I followed the advice of Green and Hill, (2005) who suggest the use of tasks or creative methods within the interview to generate rich and varied data. In the first interview I used the children's own drawings to soften the effects of the high control question and answer format

common to adult interviews. At the second interview the children photographed places of importance in their schools and I had these photographs printed for the third interview. The discussion at the third interview centred on the photographs and while viewing them the children were encouraged to talk about the various places they had selected. At the final interview, children were shown generic photographs of older and younger children in various situations (for example, an older child reading with a younger child) which I had sourced on the internet. These were used as a stimulus to initiate discussion about their relationships with the older children in their classrooms. The interview had been piloted with two children who had been in Junior Infants the previous year, and it was found that the use of the drawings and photographs did stimulate discussions especially with quieter children.

Furthermore, Cameron (2005) notes that the researcher could use reflective responses to show empathy and understanding for the children. Thus, while interviewing I listened to the child's story and used reflections to encourage free narrative where possible. The physical setting of the room was also important. Different conditions prevailed in each of the eight case study schools but I attempted to arrange furniture that enabled both the children and me to sit on an equal level.

The initial stages of the interview were devoted to gaining a shared sense of purpose, establishing ground rules and helping the children to know a little about what to expect. It was important to describe the interview purpose so as to provide the best understanding for the child. As part of the invitation to be interviewed, I suggested to children that they had some important ideas that I would like to hear. I explained this usually in the following way 'I know you have lots of interesting things to say about children learning in school. Your Mum and Dad agreed that you might help me. I am going to try to listen to you very hard.' It was important to recognise that some children may feel quite uncertain about being involved in an interview. Throughout the discussion, I used lots of phrases such as 'That's very interesting,' to provide assurance to the child and enable him/her to elaborate. The interviews took place in a variety of locations in the various schools which included the staffroom, a cloakroom and a room normally used for Learning Support tuition purposes. When the interview with the children was complete, I always thanked each child and assured her that the information given was very useful to my work. If, as occasionally it did happen that a child wanted to return to the classroom, she was allowed immediately. Also, if the

child showed signs of tiredness she was given the choice of concluding the interview and returning to the classroom.

As soon as possible after the interview I transcribed the recordings of the parents' and children's interviews manually. Although this was a long, time-consuming process, it enabled me to become very familiar with the data. This would subsequently prove beneficial as I conducted a thematic analysis and sought to unpack the content and nature of a particular them.

Pilot Case Study

A pilot study is useful in testing and refining the research tools, assessing degrees of observer bias, acting as an introduction to the field of study and enabling the 'proper direction of research lines of enquiry' (Sampson, 2004, p. 390). For these reasons a pilot study was included in the research design. In addition to providing further background to inform the research questions, the experience gained in the pilot study was also helpful in establishing the access and in maintaining good fieldwork relations. The pilot study was carried out in a multigrade class where the teacher taught three grades, Junior Infants, Senior Infants and First Class and involved two days observation, and pilot interviews with the teachers, parents and children. The school was not included in the subsequent study.

As the primary instrument of data collection in the case study is the researcher it was important for me to avoid limiting my research by a lack of sensitivity or integrity during the data collection. The observation method was a particular cause of concern to me as I lacked experience in this area and there was no training available. At the initial stages of the study I had decided to use the Target Child Observation Schedule. However, during the pilot study it became apparent that the schedule was too highly structured and more widely used to collect quantitative data. The unstructured approach to observation can be very flexible and may not be as tightly focused (Punch, 2009). As a result of the pilot study I decided to mix naturalistic observation with the Target Child Schedule.

On looking at the data in the teachers' interviews and questionnaires, it became apparent that both sets were very similar. (The Interview Guide for Teachers used in the pilot study is contained in Appendix 8). In the interest of widening the variety of data being gathered, I decided to adopt a less standard approach where the questions were based on what happened during the classroom observations. The interviews were more like conversations or discussions with questions being asked as

themes and topics emerged in the everyday life of the classroom. No changes were made to the interviews for parents or children after piloting.

4.7 Data Collection: Quantitative Methods

The Questionnaire

As this study was the first major investigation into pedagogical practices with infant classes in multigrade settings in the Republic of Ireland, a postal questionnaire survey was devised which was sent to a representative sample of early years practitioners in such schools. The questionnaire was viewed as an efficient means of documenting practices and attitudes of teachers in a way that more generally represented a nation-wide sample. It contained a variety of question types which gave basic information on teachers' practice and on their views of early childhood pedagogy in multigrade settings.

In order to establish a conceptualisation of the key issues experienced by early years practitioners in multigrade classrooms, an extensive literature search was conducted. The initial questionnaire included questions based on the literature review such as those on teaching strategies, time use, levels of interaction between different age groups and the benefits and challenges of teaching in multigrade schools. The survey comprised a range of items including Likert Scale items, yes/no items and open-ended questions. The questions which made use of the Likert Attitudinal Scale, were designed to measure the attitudes of teachers to various aspects of early childhood pedagogy as practised in multigrade settings, for example play experiences. The respondents were asked to rank statements on a scale of agreement (i.e. 1=strongly disagree to 5=strongly agree). This scale is not an exact measurement of attitude; however it is a useful tool to measure the intensity of attitude towards any given issue. In addition to gathering baseline statistical data, there was also space for respondents to reply in greater detail on various issues, yielding valuable opinions and information.

The survey provided quantitative data on early childhood pedagogical practices used in a wide range of multigrade schools which could then be used to enrich the findings of the case studies. There were several opportunities for the respondents to add comments which gave me an opportunity to ascertain their views

on early years pedagogy. These reflections added a qualitative element to the questionnaire and enabled me to further contextualise the findings from the case studies.

Pilot study of questionnaire

A pilot was conducted to determine how effective the first draft questions were in eliciting informative responses from practitioners who would not later be involved in the full questionnaire. From the responses to the initial questionnaire a small number of revisions were made and the final questionnaire was developed. The draft questionnaires were completed by 15 Primary School Teachers not involved in the main study. The revised questionnaire also requested biographical information from all respondents so that it could be ascertained whether responses were influenced by, for example length of service, role or age of respondent (See Appendix 9 for a copy of the Questionnaire Survey and Cover Letter for Teachers).

Sampling and response rate

It was decided to target schools with less than 80 pupils as these schools would most likely have less than four classroom teachers ensuring that there would be multigrade classes within the school. There were approximately 660 such schools and taking into consideration factors such as expense, time for data collection, and time for data entry, it was decided to send the questionnaire to a sample of approximately 250 schools in total in order to access the most representative sample possible from the total population.

The sampling method for administering the questionnaire was a stratified random sampling approach. The sample of the schools in the survey was selected from the most up-to-date list of primary schools available from the Department of Education and Science. A list of school names and addresses was obtained from the Department of Education and Science. The criteria under which the schools were selected were divided by the proportion of the number of schools within the four provinces of Ireland in order to receive a response which would better represent nationwide views. In January 2011, a questionnaire was sent to the 250 schools in the sample. An additional letter for the attention of the teacher of Junior Infants to inform them of the survey gave background information and encouraged the teacher of Junior Infants to complete the survey was also included.

Mangione (1998) advises that the use of follow-up reminders is the single most important technique for high return rates for questionnaires. Therefore, a comprehensive follow-up procedure was planned to ensure a high overall response rate. Each school was telephoned to remind the teachers to complete the questionnaire. Where schools indicated that they had mislaid the questionnaire, a second copy of the questionnaire was sent out. Non-respondents were targeted with further emails and occasionally phone calls. The total response rate was 56% or 141 out of 250 questionnaires posted.

An outline of the field work and a time line is included in Table 4.2 below in order to give an overview of the chronology of the research process. This is followed by Table 4.3 which is a summary of all data gathered in the eight case study schools. This includes frequencies of child observations, interviews with teachers, pupils and parents.

4.8 The fieldwork

Table 4.2: Outline of fieldwork activity

Year 1: September to December - Preparation	
Qualitative data	Quantitative data
Sourcing suitable schools Selection of eight schools Telephone calls and letters to school principals	Construction of pilot questionnaire Sampling procedure
Year 1: February to June – Pilot Phase	
Qualitative data	Quantitative data
Selection suitable schools Preparation of pilot instruments and permission letters Pilot observations Pilot focus group interview with children Pilot interviews with parents Analysis of pilot returns Revision of instruments	Administration of pilot questionnaires Data analysis of pilot returns Revision of questionnaire
Year 2: September to November – In the field	
Qualitative data	Quantitative data
Meeting with teachers in all eight schools Observations Informal interviews with eight teachers Focus group interview 1 with children	Further revision of national postal questionnaire Construction of revised questionnaire Sampling procedure
Year 2: January to June – In the field	
Ongoing observation in schools Informal interviews with eight teachers	Administration of postal questionnaire Two mailings of postal questionnaire

Focus group interviews 2 and 3 with children Interviews with parents in case study school Focus group interviews with parents in case study school	Telephone reminders Data analysis of questionnaire

Table 4.3: Summary of data gathered

	School visits	Observations of children	Class Teacher	No. and composition of focus groups (Children)	Focus group parents	Individual Parent interview	No of parents interviewed
Case 1 Abbeytrasna NS	9	18	1	1 (2 children)	1		2
Case 2 Cashelbeag NS	8	15	1	2 (2X3 children)		2	2
Case 3 Drumleathan NS	8	18	1	1 (1X4 children)	1		3
Case 4 Scoil Eirne	6	14	1	0		1	1
Case 5 Gortglas NS	6	14	1	2 (2X4 children)			0
Case 6 Kildubh NS	7	14	1	2 (1X4 children) (1X3 children)		1	1
Case 7 Rathóg NS	7	18	1	2 (1X4 children) (1X3 children)	1		3
Case 8 Ballyglen NS	7	14	1	2 (1X4 children) (1X3 children)	1		5
Total	58	125	8	41	4	4	17

4.9 Triangulation

Cohen, Manion and Morrison (2007) define triangulation as 'the use of two or more methods of data collection in the study of some aspect of human behaviour' (p. 141). Triangulation helps to demonstrate validity especially in qualitative research by using a number of standpoints to explain a complex human behaviour. The use of a multi-method approach avoided over reliance on one singular method which may provide only a limited view of the phenomena under investigation. Furthermore, in this study contrasting methods were used to increase the researcher's confidence in findings.

Denzin (1970) identifies 'between methods' triangulation as being an effective way of checking on validity. In this study, between methods triangulation involved using a number of methods to examine the same dimension of the research problem. The focus remained on early childhood pedagogical practices in multigrade classrooms while the mode of data collection varied between observation, interviews with children, teachers and parents, a content analysis of WSE and WSE-MLL reports and a large scale questionnaire survey.

Triangulation was further broadened to include a comparison of the case study schools. Cases in the design were chosen to broadly replicate each other in terms of their size and composition. Therefore, it was possible to discover if the findings from one case site were replicated in any or all of the other cases. The use of cross case comparison enabled similarities but also the unique variances of cases to be discovered which otherwise may not have come to the forefront.

Finally, triangulation was also promoted in the study as early childhood pedagogical practices were examined from the perspectives of the varying people involved with them. For example, interviews were carried out with parents, teachers and children and this allowed for new and richer understandings to emerge.

4.10 Ethical Considerations

The approach taken in this study was guided by ethical principles outlined by the Research Ethics Committee at University College Cork. The guiding ethical principles for the present study were: respect for human dignity, respect for free and informed consent, respect for privacy and confidentiality and minimising harm. An

application for ethical clearance, which is included in Appendix 10 of this study, was submitted in writing to the Research Ethics Committee at UCC before data collection began. After consideration, the Committee granted ethical approval for the project to commence. The approval letter is also contained in Appendix 9

The teacher participants in the study were informed that all individual data collected in the study would remain confidential. The names of schools involved as well as the teachers and children who participated were changed to ensure anonymity. The teachers were advised that the data collected would be used in conference presentations and the final report would be published as a PhD thesis. The information documents sent to teachers, Principals and Chairpersons of the Boards of Management of schools are contained in Appendices 1 and 2.

With respect to working with children, a number of core principles guided this research. The first is that children are viewed as persons in their own right who share with adults a comparable level of agency and the capacity to reflect on and shape their own experience. Moss, Clark and Kjorholt (2005) maintain that the development in interest in accessing children's perspectives and views has been linked in recent years to the growth in children's rights perspective worldwide. Widespread acceptance and official endorsement of the United Nations Declaration on the Rights of the Child (1989) indicates a widely held view that embraces children's participation and recognises that children have their own views of what affects them directly as well as their own perspective on the world around them. The notion of participation can be seen most clearly in articles 12 and 13

> *Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child*
>
> *The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art or through any other media of the child's choice* (UNCRC articles 12 and 13, 1989).

Underpinning the children's rights' perspective is a view which recognises that children are not all the same. Children's experiences are multiple and varied and

children encounter these worlds in an individual and idiosyncratic manner. This study aimed to give voice to and value children's unique experience of their world of the infant classroom in a multigrade school. Therefore, there was an emphasis on utilising participatory and inclusive research strategies in which the child, viewed as a social actor, was at the centre.

This research also embraced the view of children as foregrounded in the 'new sociology of childhood' (James, Jenks and Prout, 1998) which has criticised the view of children as 'other' to adults and the ideas of developmental stages *per se*. In particular, children's capacities for understanding have been re-evaluated upwards and some of the problems identified in adult-child communication laid more at the door of adults for failing to adapt to children's perspectives. The questioning of taken-for-granted assumptions about children's capabilities or underestimating their abilities was central to this research. Children are viewed as competent, co-constructors of knowledge and this in turn opened up certain possibilities for children's participation in the research. However, I also remained mindful of the question 'how information can be obtained from children in developmentally appropriate ways' and sought to adjust the mode of enquiry accordingly.

I was particularly mindful of the centrality of ethical responsibility when undertaking research with children. A review of early childhood literature reveals that ethical issues encountered are similar to those with adults but are mediated by the child/adult power differential (Dockett and Perry, 2007). I attempted to remain sensitive to the inequalities of power which existed attempting to remedy these inequalities through collaborative research and building reciprocity into the research design. The Junior Infant children in this study obviously differed in terms of their competence in language and in their ability to comprehend abstract ideas. Therefore, the vulnerability associated with being younger, less experienced and physically smaller placed a responsibility on me to protect the children from any social and emotional harm that might be inflicted upon them through their participation in this study. The major areas for ethical concern in this study included informed consent from all participants (parents, teachers and parents regarding their children), children's assent, confidentiality and protection from distress. (See Appendices 2 and 6 for copies of consent forms).

All potential research participants have the right to give or deny informed consent (Hill, 2005). However, given the issue of the children's vulnerability, it was

particularly important for me to be clear that the children were able to understand the process to which they had assented and what was expected of them. It was not considered appropriate to seek written consent from the children in this study as is usually the case with adult research participants. A simple explanation was given to the children that the researcher was going to watch them to see what they like doing in school so that she could tell other adults about it. In addition, the potential benefits of the research for other children were pointed out as the children's assent was being sought. At times during the research period, this was problematic given the fact that the research was carried out within school, an institutional setting where children's power to say 'no' is limited. For example, the children may have agreed because their teacher and parents had agreed for them to participate or because their classmates were going to take part in the interview. However, it was made clear to the children that they could withdraw from the research at any stage. Flewitt (2005, p. 556) uses the term 'provisional consent' to highlight the ongoing nature of consent which can be understood to 'be provisional upon the research being conducted within a negotiated, broadly outlined framework and continuing to develop within the participants' expectations'. Parental permission was also sought before the children became involved in the research.

Confidentiality can occur at several levels within research (Hill, 2005). At the level of public confidentiality, it involves not publicly identifying research participants. The children in this study chose the name they wanted used to refer to them in research reports. A second element of confidentiality considered in this study was network confidentiality. Network confidentiality occurs where information gathered from one group of participants (such as children) is not shared with another group of participants (such as teachers).

Although the differences in social status between the researcher and the children cannot be avoided completely it was possible for me to adopt an interpersonal approach which aimed to reduce the children's inhibitions. For instance when carrying out interviews with the children, I used informal language and sat at a level that was comfortable for them. Thus, I attempted to create the conditions where the children could manage rather than be inhibited by the power play of the research process. Christensen (2004) has described the importance of negotiating a position that recognizes the researcher as an unusual type of adult, one who is seriously interested in understanding how the social world looks from children's perspectives

out it was difficult to reschedule. but without making a dubious attempt to be a child. Through this approach I hoped to emerge first and foremost as a social person and secondly as a professional and genuine person who was interested in finding out about children's learning experiences at school.

4.11 Positioning Myself as Researcher

Merriman (2009) emphasises the necessity for revealing one's position of self in the interest of cogency when conducting educational research. Declaring my position as a researcher therefore meant for me that a reflexive focus and an awareness of my role and identity as a researcher were required throughout the research period. At the beginning of the research I had made it known to all teachers involved in the study that I myself worked as a teacher in a multigrade school. This had mixed effects. For some teachers my position helped establish goodwill as participants felt I might have a greater understanding of their challenges and they were very willing to allow me observe their classes. Other teachers were more reticent but when the role of researcher was outlined and anonymity guaranteed, I found that the teachers were better able to separate the role of researcher and teacher.

4.12 Challenges and Constraints in Data Gathering

There were three main challenges which affected the nature of the research design within the culture and community that was the case study school and classroom. Firstly, the insecurity of one of the participating teachers, her unwillingness to allow classroom practice to be observed closely proved to be challenging. This particular participating teacher felt I might distract the Junior Infants if I sat alongside them. She requested that I sit at the back of the class. Consequently, I was not in a position to hear the children's conversation as they interacted with one another in small group activities.

I did not conduct as many observations as I had originally intended, as 'the vagaries of the school timetable, unexpected special events, classroom dramas and staff absence may limit the researcher's work' (Dockrell, Lewis & Lindsay, 2000, p. 50). Other realities of the study included the location of some of the schools in remote areas far away from my home and the necessity of travelling long distances. As the winter of the second year of data gathering phase was particularly inclement, I missed out on two visits in the month of January and February. The eight case study

schools were extremely busy places and what emerged was that if time was missed out it was impossible to reschedule.

Furthermore, in one case, permission to interview the children was not granted by the teacher of Junior Infants who was also the Principal of the school. As the goodwill of the teachers was critical to the completion of the research, this issue was not pursued. As referred to earlier, I had missed out on some visits in this school and time that was allocated to child interviews was used to complete a number of extra observations.

A further challenge for the research was negotiating interviews with parents. In general, there was a mixed response among parents to my invitations to interview. For example, in two of the schools all of the parents agreed to be interviewed and all took part in a focus group at their school. However, in two other schools no parent accepted my invitation for interview. The principal of one of these schools took it upon herself to contact the parents to encourage them to be part of the research process and in this case school five parents out of a total of seven participated in the focus group interview. However, the principal of the second school did not wish me to issue a follow-up invitation and therefore, I did not interview any parents in this school.

4.13 Analysis of Data

Content Analysis

Content Analysis was used as one element of the literature review in Chapter 3 to provide a lens through which to interpret and make explicit how DES Inspectors think early years pedagogical practice should be constructed, framed and enacted in multigrade schools. In using Content Analysis, my assumption was that it is particularly appropriate for analysis of the WSE and WSE-MLL documents because it allows a detailed investigation of the relationship of language to other social processes and how language works within power relations (Taylor, 2004).

Twelve reports all published during the academic year 2013-2014 were included. The choice of reports aimed to include a similar range of schools to those chosen for the research study itself. These were two and three teacher schools which had pupil numbers between 17 and 66 and which were located in various geographical locations nationwide. The selections included some WSE reports and some WSE-MLL reports. Two main types of information were included in the reports, namely,

scalar evaluations about levels of quality and qualitative judgements which related to the intrinsic nature of educational events at these schools.

In the Inspectors' reports I was guided by Fairclough's (2010, p. 94) three dimensional framework in which each discursive event has three dimensions: it is a 'spoken or written language text, it is an instance of discourse practice involving the production and interpretation of a text, and it is a piece of social practice'. The first level of analysis necessitates micro-dissection of the text for linguistic nuances that contributed to the construction of meaning. Fairclough (2010, p. 133) refers to the second level of his analytical triad as 'discourse practice' and 'interpretation'. At this level there is an awareness of the socially produced nature of language and that documents such as WSE and WSE-MLL reports are always imbued with the world of their producers. The third level of Content Analysis is referred to as that of 'sociocultural practice or social analysis' (Fairclough, 2010, p. 133). This is the analytical space of how texts play out in 'situational, institutional and societal spaces'. It is the enacted world of the report or the space of action and interaction where the micro worlds of text production play out in the everyday world and lives of social actors.

Analysis of quantitative data

The analysis of quantitative data followed a process involving the following stages: data preparation; initial exploration of the data; analysis of the data; presentation and display of the data. The primary task of data preparation was coding and each answer in the questionnaire was assigned a code number. The codes were entered into an Excel spreadsheet and then imported into the statistical analysis software SPSS (Statistical Package for Social Scientists).The reason for using two different software packages was that Excel would automatically update graphs showing the frequencies of responses as survey data was entered which gave early impressions and ideas about the data and helped in reflecting on findings at a beginning stages.

Descriptive statistics were used to form the basis of the quantitative analysis of data. Descriptive analysis of the data enabled a rigorous organisation of data, summarizing the findings and displaying the evidence. Distributions for the data were presented as frequency counts for each interval point of the measure and were summarised in terms of the range of scores from the lowest to the highest. The

statistical package SPSS was used as a means of presenting data on frequencies with which I was able to design tables and histograms.

For the open-ended questions in the questionnaire respondents supplied answers which then had to be grouped into workable categories for thematic analysis. A coding frame was devised by taking a random sample (10%, n=15) of the questionnaires and generating a frequency tally of the range of responses as preliminary to coding classification. Having devised the coding frame, a check was made on validity by using it to code up a further sample (10%, n=15) of the questionnaires. The coding frame was then applied to the remainder of the questionnaires.

Analysis of qualitative data

Analysis of the data took place in two phases. For the first phase, Miles and Huberman (1994) provided the general framework for qualitative data analysis which was adopted as it is particularly useful in case studies (Robson, 2002). The analysis consisted of three concurrent 'flows of activity': data reduction, data display and conclusion drawing/verification. These processes formed a continuous iterative process ensuring high quality accessible data as well as documentation of what analysis has been carried out.

With data reduction, the whole data set was made more manageable by summarising, coding and writing memos. Miles and Huberman (1994) argue that this is analysis because already decisions are being made about what is to be included and what is to be left out. Data display is an organised, compressed assembly of information that facilitated thinking and conclusion drawing. Finally, according to Miles and Huberman (1994) conclusions are drawn and verified by testing their reliability and validity. Three questions were helpful in this process:

Is an explanation plausible?

Can you find evidence to confirm it?

Can a finding be replicated in another data set?

Qualitative data sets consisted of interview transcripts (with children, parents and teachers) and written records of observations. The general approach to data analysis with regard to interviews was similar in that it was a recursive process which began during data collection. Initially, analysis consisted of reading and annotating

transcript data and identifying key themes emerging from the data. The data was categorized into broad analytic themes based on the research questions and recurring themes in the evidence. The various data bases were scrutinized for extracts that conformed to and contradicted analytic themes (Miles and Huberman, 1994) while a 'constant comparisons' approach (Silverman, 2000) was applied to further refine research findings presented in Chapter 5.

The second phase of data analysis focussed on the constant comparative method of data analysis as a means of evolving grounded theory (Merriman, 2009). In the quote below Strauss and Corbin (1998) encapsulate the usefulness of grounded theory approach in providing a means of further refinement that was needed in the approach to data analysis in this mixed methods study

> *'If someone wanted to know whether one drug is more effective than another, then a double blind clinical trial would be more appropriate than grounded theory study. However, if someone wanted to know what it was like to be a participant in a drug study [..], then he or she might sensibly engage in a grounded theory project or some other type of qualitative study.'*
> (Strauss and Corbin, 1998, p. 40).

Grounded theory thus provided an additional scaffold for qualitative data analysis and for the development of findings as outlined in Chapter 6.

To enable the development of a grounded theory, two further coding techniques were used to examine data: open or line-by-line coding, which provided an initial departure point in identifying phenomena of importance to participants in the multigrade classroom; and axial coding, described by Charmaz (2006) as reassembling the data that has already been broken up into separate codes by open coding. Charmaz (2006) recommends a less rigid approach as favoured in this study of reflecting on categories, sub categories and establishing connections to make sense of qualitative and the quantitative data. The process involved a form of pattern recognition within the qualitative and quantitative data sets, pulling together data into more abstract categories which became the building blocks for emerging theoretical propositions.

Themes were generated which encompassed a number of categories and these themes were then applied across the different types of data gathered in the study. Coding of data across the interview scripts, observation field notes, open sections of the teacher questionnaires and the content analysis of the WSE and WSE-MLL reports was processed to identify the extent to which categories and themes emerged.

Some codes were then recognised as sharing similar characteristics and provided a start list of codes which provided categories for organising data into meaningful clusters in the thematic analysis.

4.14 Research Reliability and Validity

Several strategies were used in this research study to enhance the validity and the following section addresses the specific concerns with regard to validity of both the quantitative and qualitative methods. Firstly, the validity of postal questionnaire can be seen in the issue of non-response (Cohen *et al.*, 2007) In other words a question I considered was, would the participants who failed to return their questionnaire have given the same distribution of answers as those who did return the questionnaires. In order to reduce volunteer bias and to ensure a maximum response rate, a comprehensive follow-up strategy to the initial distribution of questionnaires was implemented. This strategy has been outlined earlier in this chapter. A further issue in considering the reliability and validity of the questionnaire is that of sampling. The steps taken to ensure a representative sample have been also been outlined earlier in this chapter.

The trustworthiness or otherwise of findings from qualitative studies is the subject of much debate (e.g. Robson, 2002). With regard to the qualitative methods used in the study both issues of internal and external validity were considered. Some researchers prefer the terms credibility as a descriptor of internal validity of research and for external validity, transferability has become widely accepted in qualitative research (Mertens, 2005). Internal validity refers to how research findings match reality. From a constructivist perspective which is the basis of this study, triangulation remains a principal strategy to ensure for validity. Information from a variety of sources including teachers, parents and children was obtained in order to make the research findings as robust as possible (Maxwell, 2005). It was felt that the use of triangulation of both quantitative and qualitative research methods and multiple data sources also strengthened objectivity.

Because the researcher is the primary instrument of data collection, reflexivity or the process of reflecting critically on the self as researcher was a key element incorporated throughout the research process. From the beginning of the research and on a continual basis throughout the research process, time was spent in critical self-reflection regarding assumptions, worldview biases and theoretical orientations. I

carefully scrutinized the data for extracts that conformed to and contradicted analytic themes (Miles and Huberman, 1994) while a 'constant comparisons' approach (Silverman, 2000) was applied to further refine research findings. Merriman (2009) suggests that qualitative researchers can never truly capture an objective reality, however, the process of constantly looking for alternative explanations in the data has added to the rigour of the research.

A common strategy for ensuring internal validity is respondent validation (Merriman, 2009). Respondent validation facilitates continual questioning of the data through engagement with the participants and their responses to emergent findings. Lincoln, Lynham and Guba, (2011) promote the use of respondent validation in case study research in order to allow respondents' perspectives on the emerging nature of the findings to be included within a grounded theory data analysis framework. The inclusion of respondent validation also adds further rigour and credibility to the research findings (Merriman, 2009). However, Lacey and Luff (2001) also caution that competing or contesting interpretations by respondents, dynamics of trust between respondents and researcher and confidentiality issues can limit or call into question the effectiveness of such respondent validation. Informal respondent validation was carried out with the participant teachers, parents and children through individual discussion of their experiences and through their ongoing communication and contact with me throughout the research phase. This resulted in a deeper exploration of varying emergent patterns in the data analysis. Although presented as a linear, step by step process, the research was in fact an iterative and reflexive process and my engagement with the data through a process of constant comparison and analysis combined with my ongoing reflection and reflexivity served to question and challenge emergent themes of this study. Finally, I also believe that good levels of credibility were established by conducting the survey, observations and interviews over a prolonged period of approximately a year.

External validity is concerned with the degree to which the findings of one study could be applied in other situations, in other words the transferability of the study. One of the most commonly mentioned strategies to enable transferability is the use of thick descriptions (Merriman, 2009). Thick descriptions of events were provided so as to reflect the complexity of situations and to strengthen the transferability of the research findings. A further strategy for ensuring the external validity of the study was the use of maximum variation in the case study sample.

Although all schools in the case study were small schools with up to 56 pupils, a variation of cases was selected in the Munster region which included urban and rural schools, DEIS and non-DEIS schools and schools where class size varied. Finally, an extensive audit trail of research activities was kept in order to ensure dependability in this study. The audit trail included records of raw data, field notes, research journal and details of coding and analysis used.

4.15 Summary

Using a concurrent triangulation mixed-methods design (Creswell *et al*., 2003), this study aimed to present a comprehensive picture of early childhood pedagogical practices in Junior Infant classes of multigrade schools. The study which was conducted in eight case study multigrade schools, explored the perspectives of the teachers, children and their parents. An eclectic methodology was used to gather data from a broad range of sources which included observational data, interviews and focus groups to gather information about the practices as well as a content analysis of WSE and WSE-MLL Inspectors' reports. All of this information was supplemented by data gathered through the questionnaire survey which documented pedagogical practices and attitudes of teachers in a way that more generally represented a nation-wide sample. Grounded theory provided a framework for analysis based on the rich data sources researched within the interactions of the participants in the situated social context of multigrade schools and classrooms. The broad range of data sources; the prolonged nature of the research period; the on-going analysis and review of findings and multiple triangulation facilitated the emergence and validation of the key findings which are presented in Chapters 5 and 6.

CHAPTER FIVE: FINDINGS AND ANALYSIS

5.1 Introduction

The findings of the eight case studies conducted within various classrooms in multigrade schools are presented in this chapter. It also contains the findings of a nationwide questionnaire survey that was conducted at the same time. The presentation of these findings has been divided into three sections. Part One looks at two of the case study reports in their entirety. These two studies, both in four grade classrooms, exemplify two extremes in approach towards pedagogy in multigrade settings.

In Part Two of this chapter, a cross case analysis is presented of all eight case studies. It is presented under four key themes which were common across all of the case studies. The four key themes were concerned with: pedagogical interactions that took place between practitioners and children; how Junior Infants negotiated participation in their classrooms; collaboration of younger and older children in their classroom activities; and how communities of practice were seen to emerge across the settings. This cross case analysis also relates findings back to the research highlighted in the Literature Review, Chapters 2 and 3.

Finally, in Part Three of this Chapter, the findings of the nationwide questionnaire survey, which was administered to teachers of Junior Infants in multigrade classrooms, are presented. The principal aim of the questionnaire was to give broader context to the findings of the Case Study stage.

5.2 Part One: Selected Case Studies

This section includes two of the eight case studies, Case One (Abbeytrasna National School) and Case Two (Cashelbeag National School), carried out in multigrade schools. These two particular studies were chosen because they exemplified two varying approaches to pedagogy found across all eight case study schools.

Case One: Abbeytrasna National School.

Table 5.1: Abbeytrasna National School Summary

Case setting	Multigrade classroom 4 grades: Junior infants, Senior infants, First and Second classes. Total no. of children in classroom: 11
Junior Infants	Rachel: Age 5 Only child Jim: Age 4 Has two siblings in the classroom
Practitioners	Orla: Class Teacher Nora: Learning Support Teacher Patsy: Resource Teacher Fiona: Special Needs Assistant
Parents	Margaret (mother of Rachel) Sandy (mother of Jim)
Other children in the class *	Senior Infants: Toby, Nadine First: Ryan, Shane Second: Maeve, Cian, Thomas.
Data	Field notes Observations Interview Transcript: Teacher (Orla) Interview Transcript: Rachel's mother (Margaret), Jim's mother (Sandy) Interview Transcript: Junior Infants-Rachel and Jim

* Please note only the children and adults in the vignettes below are named here. Hence the discrepancy between the actual number of children and adults in the classroom and those named in Table 5.1.

Overview

This school is set in a rural location in Munster. The outside of the school is brightly painted with murals on some walls. Inside the building is a traditional two room school layout and every inch of space is put to some use. The classroom itself is small and the windows are high making the space dark so the electric lighting is used even on bright summer days. Along one wall is an interactive whiteboard and a stand with IT equipment. On the opposite side of the room is a snug book corner with cushioned seats and two large shelves-one laden with picture books and another with smaller books. The teacher's table is placed next to the book corner and along the remaining wall there are open shelves which store many resources including board games, maths equipment, jigsaws and a variety of construction toys. The walls are

decorated with art work of all kinds including several posters which the children collaborated on.

There are eleven children in this classroom with one boy and one girl in Junior Infants. The children are grouped with their class and face the interactive whiteboard at the front of the classroom. Within this small classroom, there are two sets of siblings which add further to the family like atmosphere here. Because there are so few children the noise levels are low and the atmosphere seems very quiet and peaceful.

Orla the class teacher is in her early 40's and had taught at a number of schools before eventually settling here. She prefers to teach in a multigrade setting and considers the Junior Infants 'lucky to have access to older children who help them in all sorts of ways'. She did state that her teaching has changed radically over the years and that now the children do a lot of work together as a class 'allowing children to progress according to ability rather than conforming to expected outcomes for the individual class groups.' The other adults who work in this classroom include two support teachers and a special needs assistant.

Of the two Junior Infants in this class, Jim is the younger of the two at 4 years of age. The class teacher Orla often notes that he started school at a very young age and she is concerned that maybe he does not have sufficient maturity to cope with the demands of a multigrade class. I observe that Orla spends a lot of time engaging with Jim in particular when the class are working on individual tasks. However, Orla does admit that Jim has settled down more as the year progressed and attributes this change to the fact that he has older children to look up to. Jim has two older sisters in the classroom. Rachel, the other Junior Infant is 5 years of age and she is an only child. Through observing in the classroom and speaking to the teacher, it would appear that Rachel is a very capable child. She works diligently at her individual tasks and also participates very well in whole class activities. Her mother says she is very happy at school and loves the company that the mixed age group brings.

Pedagogical Interactions

In sociocultural theory, learning is seen as a social process and children are active participants in the construction of knowledge (Vygotsky, 1978; Wertsch, 1998). The role of the teacher is to promote learning through active engagement with the learner and the interactions that happen between the teacher and the child are seen as

critically important. The pedagogy required is both pro-active and interactive. Pedagogical approaches adopted by the teacher include ensuring a balance between learning that is led by the child and learning that is led by the teacher, and ensuring opportunities for children to interact with each other in appropriate ways.

In this case study, the quality of the teacher's interactions with the Junior Infants is particularly striking. She clearly enjoys being with the children and engages with them in a respectful, caring way. She encourages children to share their work and their thoughts together and is very enthusiastic about their efforts. She appears to be constantly aware of opportunities to facilitate mixed-age working groups. She often allows the children to work in pairs exploring the task in hand in order to assess their levels of knowledge and understanding. She intervenes sensitively to model if appropriate.

> *The teacher shows a previous recording on the interactive whiteboard of the children telling their news. It serves as a reminder of what the 'news telling' will require. The teacher also has a large poster of a dragon with the questions who, what, where, when and how on it. The children are then asked to close their eyes and think of their news story. They will tell their news using the poster as a framework. When that has been done, the teacher organises the children into pairs of different ages. The children face each other and begin telling their news to one another. Thomas, the older child with Jim begins to complain that Jim won't pay attention. He is yawning and seems tired. The teacher calls Thomas and Jim over to herself. She speaks about a walk she had with her family the previous day.*
>
> *Teacher: Yesterday, Niamh, Cian and I went for a walk along Pirates' Cove beach by my home. We took our new Red Setter puppy with us. It was really windy and the sand was blowing in our faces. We felt really cold and decided to go home quickly. Then we had a cup of hot chocolate by the fire.*

After this episode, Orla continues to scaffold Jim and helps him formulate a news story to tell Thomas. During the news telling, both pupils are watching Orla intently and it is obvious they are really interested in this story. The children discuss the antics of teacher's puppy in the walk and compare these to their own personal experience. The children are familiar with the teacher's life outside of school as she often shares personal stories with them that enhance her interactions. Orla is clearly considered by the children as an important person in their lives and therefore her modelling of skills, attitudes and behaviours is especially significant for them. In this

instance the modelling is combined with scaffolding which provides a significant base for learning for Jim.

The teacher and children are practising their dramas in Irish. The teacher divides the class into pairs where a younger child works with an older child. Each pair of children uses the same sentence structure and substitute different nouns. Interestingly, the teacher does not ask the pair with the Junior Infant until the end. One of the junior infants watches intently. It seems as if she would like to know what to do and say when her turn comes

Cian (2nd class) and Rachel (Junior Infant) take a turn.

R: Tá mo chás peann luaidhe caillte agam.
C: Fuair mé é.
R: Tabhair ar ais dom é más é do thoil é.
C: Seo duit.
R: Go raibh maith agat.
C: Tá fáilte romhat
O: You are brilliant, will we record it now?

Although this interaction took place towards the end of the school year, Rachel shows a very impressive command of Irish given that she did not attend a Naíonra or come from an Irish speaking home. Her knowledge of the Irish language may also point to her learning through 'intent participation' (Rogoff, 2003, p. 317). Rachel has access to involvement in community activities and is expected to learn not only from activities designed for her class group but also from intent participation in ongoing shared endeavours of the older children in the classroom.

The children agree to recording a piece and the first two attempts do not go well. At first the children are laughing nervously and need to retake the piece. Rachel cannot remember what to say at this point. Ryan (First Class) reminds the class of an incident the teacher had told them about a few weeks previously when interviewed at school by a local radio service. Ryan remembered the interviewer had written the teacher's speech down to help her remember it. Ryan suggests this may be a good way for Rachel to remember it. Teacher elaborates on the comment and concurs that she had been quite nervous about the interview. She tells the class she had really had to concentrate and focus. Once again it is striking how she uses a similar personal experience to teach the children about how to remain calm while being recorded. In addition, the older child Ryan is working alongside Orla in facilitating learning for the

Junior Infants. It is a particularly striking example of the strong community ethos in this classroom. At the third take, the older child begins to cough and everyone begins to laugh. The other junior infant, Jim, thinks they are being a "small bit silly" and teacher agrees. She asks the children if it is better to leave it until a later day when they may be able to concentrate better. They agree to this.

The findings in this section illustrate that the teacher's role in a multigrade is responsive and active, drawing on a range of pedagogical skills such as modelling, observing and interpreting. A key skill as demonstrated by this teacher is the need to establish and maintain a delicate balance between guidance for younger children and the risk of over simplification of the activity for the older pupils.

The Interactive Whiteboard – A 'Precious' Thing

The aim of this section is to explore how interactive learning technology, namely the Interactive Whiteboard contributes to teaching and learning in this multigrade class. The Interactive whiteboard is analysed as a teaching tool that enhances the teacher's pedagogical goals. Orla frequently speaks of the important role of how she uses information technology and how it has transformed her approach to teaching in the multigrade classroom. She says:

The use of ICT has changed the whole teaching in a multigrade setting for me. Previously, the four classes followed four very different programmes. Very difficult! Now we do so much together, with cross age tutoring and peer tutoring. I feel children have the ability to progress according to ability rather than conforming to expected outcomes for individual class groupings.

When talking with the Junior Infant children about their classroom during an interview, they also acknowledge the important place of the interactive whiteboard and it is the first place they photograph during their interview.

R: I know the important thing is so precious. The whiteboard.
I: The whiteboard? Why is that a precious thing?
R: Because it does, it copies the computer what it's doing.
I: And what kind of work would you do on the whiteboard?
J: Jolly Phonics
I: And what's Jolly Phonics about?
R: It's about the sounds and letters of writing.

I: Ok and what other things do you do on the whiteboard?
R: We do you know those funny, we have funny films and we forgot to show them to you.
I: Oh yeah. I must ask your teacher about that.

One major theme in studying the interactive whiteboard is their potential to enhance pedagogy by fostering a more interactive style of teaching. In particular, the next extract shows how the teacher uses the interactive whiteboard as a catalyst for the development of interactive pedagogy. The children are using Microsoft Photostory to retell the story of. They have chosen some pictures to illustrate the story which they have already downloaded. They have also written suitable pieces to go with these illustrations. This extract shows the children recording their voices reading this text. Each child goes to the front of the room to speak into a microphone.

J: She sat on the last chair and it was just right but it broke.
The teacher reads along with Jim in a low voice.
O: He deserves a clap for that.

R: Goldilocks got into Baby Bear's bed and fell fast asleep.
O: If you read it in such a teeny, tiny voice we won't understand. The teeny vice is just for Baby Bear speaking.
Rachel tries again in a normal voice. When she is finished she marches down to her place smiling broadly.

When the photostory has loaded the children listen to the recording.
J: I hear like a baby. I have a small voice
O: That's because you were speaking gently.
Jim nods his head in agreement.

The children interact physically where the focus is on 'going up to the front and manipulating elements of the board'. They also interact on a conceptual level where the focus is on exploring and constructing curriculum concepts and ideas. The use of the interactive whiteboard technology facilitates a shift to move to child-led interactions. (A full transcript is contained in Appendix 11).

In this classroom Orla's repertoire of pedagogical actions includes the use of the interactive whiteboard as a technological tool where she can draw on a wide range of resources which she adjusted for various age-groups and grade levels. In addition the interaction seen among children of this classroom group shows learning as a co-constructed outcome of the activity and cultural practices where the pupils and teacher engaged with one another. While there was an interactive whiteboard in each of the case study classrooms it was put to use most effectively in this classroom to support

participation and learning of Junior Infants. This use of interactive whiteboards contrasted sharply with its use in other classrooms and the research suggests that in general, there was a lack of awareness among teachers of the potential of technology as a means of creating and extending learning opportunities across grades in the multigrade classroom.

Participation: Junior Infants 'picking it up'

A focus on participation as central to learning is the distinctive feature of Lave and Wenger's (1991) theory. In this case study, the concept of participation is used to consider both the moment to moment engagement of the Junior Infants Jim and Rachel in the social practice of their classroom. These accounts of learning and teaching of the Junior Infant class suggest that learning in this multigrade class can be characterised by engagement, and learning exhibits characteristics of participative identities.

One of the advantages of the multigrade system in the class teacher (Orla's) view is that because some lessons are repeated often over the period of years that children have the opportunity to hear material revisited often so that eventually they learn it without much effort. However, it is a challenge to provide fresh learning opportunities for the older children while maintaining focus on the Junior Infants. The following two extracts describe how the teacher uses the same material for the whole class but does not expect the Junior Infant children to participate as completely as the children in the other classes.

Children learn the sounds of the letters through song. Each morning the Junior and Senior Infants spend a short time at this activity and the Junior Infants are expected to join in with the song. The teaching strategies seen in the vignettes below encourage children to use the knowledge acquired in earlier learning sessions but also allow the teacher to give varying amounts of support for each child depending on their level of content knowledge in phonics.

> *Today there is a new sound for the children to learn. The sound is 'J'. At first teacher tells the Jolly Phonics story of the letter j. Then she teaches the song. As the older children already know this song they join in with gusto and it is the older children who seem to lead the singing.*

It seems as if there is an assumption that the children will 'pick up' the song with repetition. The children in the Junior and Senior Infant classes have a handwriting lesson.

> *Now the class are practising making the letter 'j'. At first the teacher models the handwriting. She repeats instructions 'come straight down the middle and go slowly' as she makes the letter on the interactive whiteboard. Teacher asks each child which of the 'j's' they like the best. Each child picks out which he thinks best. Then it is the turn of the children to try writing a letter. The first turn is Jim's, a Junior Infant. Teacher lowers the interactive whiteboard so that Jim can have good access to it. As he writes teacher says she loves his pencil grip and can see how careful he is being. Next is a child in Senior Infants and before he starts he asks teacher to 'higher up the interactive board' for him.*

Although the session is largely instructional with the teacher leading the sequences, each child has an opportunity to contribute to it. However, in the next extract the Junior Infants' opportunity to participate is threatened by an older child. The nature of the Orla's feedback is supportive and legitimizing rather than condemning. With this feedback the teacher creates a positive atmosphere encouraging the participation of every child. The Junior Infants' right to their own contribution is protected but also the intentions of the Senior Infants are interpreted by teacher for all as wanting to help. This ensures that at other stages when the help of Senior Infants is required by the Junior Infants it will be given. Each child has several turns to sound out individual words. Now it is Rachel's turn and her word is 'duck'

> *Orla: I know you know the first sound; you are always saying'd'. Rachel smiles and says the sound of 'd'.*
> *O: Sound it with me. When 'c' and 'k' meet they only make one sound.*
> *Toby, the senior infant says 'duck'.*
> *T: Well done Toby. You're great for helping but I need her to do it alone.*

Orla develops the practice that learning for younger children in this classroom occurs in participation in shared sociocultural activities and it is clear in the activities portrayed in the vignettes above that Orla enables each child to play a central role along with their older classmates in learning (Rogoff, 2003). In whole class or class groupings the nature of interactions can be largely teacher-centred where the teacher acts like a transmitter, imparting knowledge and as a result classrooms develop as environments where opportunities for negotiation of meaning may be limited (Alexander, 2008). However, Orla also organised other grouping arrangements including mixed age small groups and pair activities in which younger and older

pupils worked without the direct adult assistance. The findings from this case study suggest that it was the variety of group settings in which the Junior Infants participated as well as the types of activities undertaken in the groups which most enhanced learning opportunities for Junior Infants in Abbeytrasna NS. In the next section, the vignettes show that interacting with older children offers the Junior Infants an alternative style of classroom organisation in which they engage in different behaviours as they co-construct understandings away from the domination of the teacher.

Interaction with Older Children

Orla is very committed to promoting cross age interaction in her multigrade classroom and this theme continues to explore the construction of mixed age interactions in Abbeytrasna NS from the perspectives of the teacher, the parents, and the children. Given the size and arrangement of this case study school, the Junior Infants have frequent opportunities to interact with older children to explore and clarify ideas and then to stretch their learning to accommodate their new knowledge and understanding when they worked in smaller groups with older children, (Wells, 1992). Orla considers the Junior Infants 'lucky to have access to older pupils, not only in my class but in the senior room also.' The teacher's practice however not only provides cognitive support for the pupils in cross age interactions but emphasises also the socio-emotional processes which children benefit from in cross age interaction (Kumpulainen and Wray, 2002).

Margaret, Rachel's mother reports that her daughter loves to work with the older children. Sandy, Jim's mother is initially more concerned that the presence of other classes may be a distraction for her child. However, she is also conscious of the important part played by the older children as role models for her son's learning experience.In a similar vein in the extract below the Junior Infants admit they prefer working with the older children.

> *I: Ok but do you know when you are all gathered around there, does Teacher ask you a question when you are in that group or does she mainly ask the bigger children do you think?*
> *R: She asks us. She asks us but one by one.*
> *I: One by one, oh yeah.*
> *R: Sometimes.*
> *I: Yeah, she does yeah. And do you know sometimes she has you both by yourself then, like she was doing your words today, there were no bigger*

children around, it was just Jim and Rachel. Wasn't it? Do you remember that when you were doing your words from 'Jolly Phonics'?
J: Yeah.
I: Yeah. So which do you prefer? Do you prefer when Teacher is by herself with the two of you or do you prefer when everybody is together?
J: Everybody's together.
I: Oh why so?
R: Because we can all talk to each other.
I: Right, yeah

They also acknowledge older children as experts and look to older children for guidance

I: Yeah and do you know one day I was here you were talking about ice and frost. Do you remember that day?
R: No.
I: With Patsy?
J: Yeah.
R: What kind...
I: You were talking about a frosty day and how frost is made and how snow is made.
R: Oh that was 'Toby's Science', was it?
I: Yes.
R: I know it.
I: That was Science yeah.
J: That was 'Toby's Science'.
I: Toby's Science, is it?
J: Yeah.
R: He must be a Sciencer. He could be one if he knows all about Science.

Within the school and classroom communities children develop a sense of belonging which is promoted by the responsibilities or 'jobs' assigned to them, such as tidying the books and handing out materials. The teacher encourages the children to be actively involved in the running of the classroom by sharing responsibility and the jobs given to the children contribute to different patterns of socialisation. In the next extract Rachel describes how she shares the responsibility of a job with older children in the senior classroom. The shared experience creates a sense of togetherness within this community which helps to shape her perception of herself as an important member of that community.

I: Do the older children ever help ye in the yard?
J: Yeah.
I: What would they...
R: Sometimes.
I: Yeah.
J: Sometimes they pull in the toys for us.

I: Oh right, they tidy up for you?
R: Yeah and I have to do the job with Ryan. It's bringing down the trolley and putting it up.
I: That's your job with Ryan?
R: Yeah.
I: And is that after break outside, is it?
R: It's second.
I: Second break. You have to do the trolley with Ryan? And how often do you have to do that?
R: And I have to bring it down as well.
I: Ok is that every single day or do ye just get a certain time to do it?
R: Every single day when we have school.
I: And does it ever change?
R: No.
I: It's always your job?
R: I'm not allowed. I'm only allowed to bring up the trolley, only up to the shed when I'm bringing down the trolley.
R: And guess who helped me pushing the trolley? Someone in the senior room.
I: Oh did you get a new partner for pushing in the trolley? Because it used to be Ryan wasn't it?
R: Yeah but no one does it with me now.
J: I do.
R: Yeah sometimes Jim does, and the big ones in first break, the big ones brought it up and then Laura had to bring it down.
I: Ok. So who did help you from the senior room to push it in?
R: Billy.
I: Billy? Oh right ok. Were you happy with that?
R: Yeah, and I race him around the school.

For the children it is important to feel that they belong to the community. The feeling of togetherness evoked by this interaction helps children feel as if they belong to the group. The teacher adapts activities so that the children have time to develop working relationships with each other. In this next extract the teacher announces it's time for their bingo game. This is a whole class activity and the children are delighted at the prospect of playing it. Ryan says his heart was beating faster when he heard they were going to play bingo. At first they name out all the food on the big chart. The teacher makes little personal remarks as they go along. For example, there is a cup of tea 'cupán tae' and teacher says Shane a 1st class child often has a cupán tae for his lunch. The children are in teams of two and Thomas (2nd) sits with Jim (Junior Infants).

Jim seems a little giddy and the older child settles him down, pulls in his chair to the table and puts his arm around his back. Cian and Rachel will work together and they bring their two chairs together. They discuss what

food items are on their card. Thomas begins to read the food items on his card and then moves it to the centre of his table so that Jim can see it too. Teacher calls out 'muga caifé'. Thomas shakes his head and Jim imitates indicating that this item is not on their card. Each team has a point then Thomas and Jim's team go ahead. Teacher asks the children to count the remaining items. They begin to count in English but teacher asks them to count again in Irish this time. Only the older children count in Irish. Eventually, the boys have all their food items covered and shout Bingo in unison. The teacher finishes out the game so that each team has an opportunity to complete the exercise.

The class teacher uses a number of strategies to promote cross age interaction throughout the daily life of the classroom. The extracts in this section show how the relationships between the older and younger pupils in multigrade classrooms are complex mixtures of 'power and dependency, expertise and helplessness' (Wenger, 1998, p. 77) and how the pupils go about creating a shared way of doing things by engaging in handling diversity and difference that occurs while working as part of a small group.

Another means that seemed to play an important role in community building among younger and older pupils was the role the teacher played promoting collective responsibility for active participation of children in the dance (Kovalainen, Kumpulalainen and Vasama, 2002). In the vignette, the teacher encouraged the active participation as she valued the contributions of Cian, Thomas and Jim and orchestrated the pace of the lesson according to the needs of all the children. Orla explicitly communicates her genuine interest in and appreciation of pupils' ideas and thoughts. This mode of participation can be regarded as significant social support that promotes pupils' self esteem and motivation for learning.

C: I remember the last time, we went to a place and we turned.
O: Yes, we met in the middle and turned.
T: You forgot gallop.
The children pair themselves off with each other. One junior infant is with a pupil from first class and another is with a second class child. There are more boys than girls in this class and some boys must be 'girls' for the dance. The older boys shy away from this and it is the younger boys who take the part of the girls. As there are an uneven number of children in the classroom the pairings are rearranged and the youngest junior infant, Jim must work with teacher. The children practise the dance a number of times.
C: Rachel, you are going too near the table.
J: You are going too near the table. Mrs. Cronin, you are going too near the table.
O: Oops, sorry! Will we do it with the music?

There is hesitation but then the children agree. The first part of the dance involves a skip but the juniors can't skip. However no notice is taken of this and they continue as if they are perfectly well able to skip.
T: What do you think? Do you like it?
Children: Yes.

Then the children ask their teacher if they can show it to the pupils and teacher of the senior room. The other teacher and children from third to sixth classes come from their classroom to be an audience for the younger children. At the end of the performance, the children get a big cheer and applause from the older children.

The role of the older child as more competent peer is to provide guidance and instruction as well as to provide experiential support for the child's development of concepts. In the next extracts, there is clearer evidence of a gap of knowledge between the older and younger pupils and the collaborative interactions which occur are crucial for children's cognitive development within this multigrade classroom. Cross age tutoring is used as a key strategy in this classroom to enable the older children to support young children's learning (Miller, 1991; Russell *et al*., 1998). The vignette below illustrates how the older child, Cian engages Jim, a Junior Infant in some aspects of reciprocal teaching (Palinscar and Brown, 1984). Cian is guiding Jims reading by summarising, questioning, clarifying the reading text. Cian's response to the text encourages Jim to engage with the reading at a much deeper level and Jim is positioned as a learner in the mediated process of entering the practices, values and ways of knowing of the broader community of readers.

The second class are reading with the Junior Infants. They are seated on chairs next to one another at the Junior Infants' table.
O: Make sure he points … (doesn't finish the sentence)
C: To his words. This is a real funny book. Remember it's ***I am*** *a bird (showing correct intonation).*
Then the pair discusses the picture.
C: Is there more dogs or cats in this picture?
J: Dogs. I am a … He doesn't know the word.
C: It's a goat. Once I rubbed a goat. He followed me. The second class child makes a shuffling noise with his feet and Jim watches him and laughs.
J: Why did he do that?
C: I ran off from him. Jim reads the rest of the book.
C: Mrs. Cronin, he was really good. The teacher doesn't answer so both boys sit on the same chair and continue to look and laugh about the pictures for a few more moments.
O: Jim was delighted with you. You deserve a point for that.

Wood (1998) emphasises the crucial moments in the scaffolding process. Cian, the more competent older child locates the reading at the upper levels of Jim's zone of proximal development allowing a certain amount of struggle but not so much that Jim becomes frustrated. Unlike all the other classes in the study, children in this school do not have a graded, class-based reader. Rather their reading material is individualised. There are sets of readers which are graded and children choose a book within their ability range. Therefore the teacher has constructed the conditions through which scaffolding can occur. As soon as the child is experiencing difficulty with the task Cian, the older child offers help and equally importantly, withdraws the help as soon as Jim can manage the task alone. In this way, there is a move towards the ultimate aim of the scaffolding process which is to transfer responsibility for learning from the older to the younger child so that he can work with an increasing degree of autonomy (Good and Brophy, 2008).

A Community of Practice: Ice melting

The notion of legitimate peripheral participation as proposed by Lave and Wenger (1991) and the concept of communities of practice as outlined by Wenger (1998) are considered key concepts in providing a framework within which to explore the way in which whole class discussion practices of the multigrade classroom shape the child's early participation in primary school. Lave & Wenger (1991) see legitimate peripheral participation as an apprenticeship process by which newcomers become part of the community of practice. The term 'community of practice' was originally developed from ethnographic studies of apprentices (Lave & Wenger, 1991) and the metaphor of apprenticeship as a model for children's cognitive development is also used by Rogoff (1990). The concept of apprenticeship in a theory of learning highlights that the child is active in engaging with learning but is also assisted by the guidance of a community of people who provide support to direct the child's increasing skilled participation in activities valued in their culture. Lave and Wenger (1991) recognise however that particular social arrangement in any community may constrain or facilitate movement towards fuller participation. The key to legitimate peripheral participation is access by newcomers to the community of practice and all that membership entails. But though this is essential to the reproduction of the community, it is always problematic at the same time. To become a full member of a community of practice requires access to a wide range of ongoing

activity, old-timers, and other members of the community; and to information, resources and opportunities for participation (Lave & Wenger, 1991).

In the following extracts the class teacher and a resource teacher are working with the children using a differentiation of curriculum approach as advocated by Primrose (2007) and the teacher addresses the needs of several levels of ability during the lesson (Gutierrez and Slaving, 1992). The children and teachers are sitting together around tables in a u-shape at the top of the classroom. Earlier on the day of the observation itself the children had put out small cartons of water on their classroom window to see what would happen to it. The class teacher, Orla took photos and now the children are showing them to Patsy the resource teacher, who takes the lead with class for science lessons.

P: Why didn't the water turn to ice?
O: What happened at 11 Rachel?
R: The sun was creeping up.
P: What's the temperature now?
Cian (2nd class): Can I check the thermometer? It says 1degree.
P: Only 1 degree?
C: Yes, it's up to the line. (Points to the line halfway between 0 and 10 on the thermometer in the photo)
P: Yes, that's five.
The class teacher goes to check thermometer and it is 5 degrees.

The first point to note about this extract is that Patsy deliberately engages Rachel, a Junior Infant child in the discussion by asking her a direct question. Like the older children there is an expectation that she will report on what happened earlier. The Junior Infant was able to access the offer of legitimate peripheral participation and the practices of the classroom served to actively involve her. In terms of classroom practice, this points to the importance of classroom teachers as 'brokers', in Wenger's sense (1998) in helping children to negotiate the boundaries of participation in the whole class discussion. While Rachel's answer contributes to the overall construction of earlier events, she is in fact given responsibility for sharing a key piece of information because it was the fact that the sun was very strong that day causing temperatures to rise which did not allow the water to turn to ice. From the beginning of the lesson Rachel is encouraged to take on a dialogic role in this classroom interaction and is involved as an active participant in the class discussion.

Up to now, the children have been allowed to contribute freely to the discussion. However, the normal routine in the class is to put up your hand and wait to

be called before answering a question. A boy in second class remembers this and he puts up his hand. He is commended by the adults for his nice manners. The junior infants watch and listen to this exchange. They understand that in order to have your contribution acknowledged quickly you must put up your hand. Both of the junior infants put up their hands. Rachel is then rewarded and she is afforded the opportunity to ask her question and by the end of the lesson all of the children have their hands up.

R: How can frost get into houses?
P: That's a good question. What do you think?
Maeve (2nd class): Lots of cold air comes in under the door.
Ryan (1st class): Doesn't happen in Ireland because it's never that cold.
P: Why don't houses freeze on the inside?
Toby (Senior Infants): Windows only let some cold air in.

Rather than answer the young child's question immediately, the teacher reflects the question back to her asking her in a non-threatening way 'What do you think?' It puts her in the position of being not only a questioner but also being a thinker and a responder to questions. Additionally, as Patsy throws out the statement to the class, the interaction serves to establish Rachel's question as an idea which is to be engaged in by all. The nature of this interaction is such that Rachel is able to negotiate meanings with the teacher that are appropriate to the practice of learning science at school. The result of this process of negotiation is ownership of meaning (Wenger 1998). It is important that the teacher has legitimised Rachel's participation in the class as Patsy is the figure of authority there and she encourages the class to develop Rachel's ideas as part of establishing her identity as a participant in the community of practice (Lave & Wenger 1991).

This exchange is a prime example of an adult-child interaction which involved 'sustained shared thinking' considered by Siraj-Blatchford *et al*. (2002) to be essential in extending children's thinking. In this episode the teacher, the older children in the class and the Junior Infants work together in an intellectual way to clarify a concept and extend thinking about it. The teacher follows the lead of the child and she has an intuitive knowledge of the child and the level of support he requires at that particular moment (Wood, 1998). It is the Junior Infant child who brings up the notion of frost inside the house. When the group explore this idea, both the teacher and the older peers act as scaffolders and the child's idea is developed further. Orla, the class teacher then takes the opportunity to introduce the idea of insulation in the next extract to help extend thinking about the concept.

R: If you block some cold coming in you could stop it.
P: What would you do? Build a high wall?
R: If we are in the house you can block the door.
J: How could you get out?
O: Do you remember Jim when you were in the yard at break time, you pointed at something, and you said what is that? Sean (the school caretaker) did something. He wrapped the cloth on the pipe.
P: What special word is there for this, when something is wrapped up to keep it warm or cold?
Nadine (Senior Infant): Insulation!
P and O: Well done!
N: It just popped out. (Smiles broadly)
P: It was just in there somewhere and it came out at just the right time. Yes, we can make our houses insulated.

.In this extract the teacher is drawing on an experience she had with another Junior Infant in the yard earlier. There was a pipe exposed and the caretaker had wrapped it with a piece of cloth. Jim had noticed it and had asked his teacher on the way into class what it was. The teacher had replied briefly at this time that it was to keep the pipes warm so the water could flow through them. Now the teacher has an opportunity to further this discussion and to add to the current one.The experience of the covered pipe is utilised in later conversations as 'shared mental contexts' which are joint frames of reference which can be shared by all members of the class. Goouch, (2008) argues that scaffolding children's learning is thought to be particularly effective when carried out in conversational contexts and in this incident it is an everyday activity which provides the backdrop for shared experiences where talk is the key feature and the level of interaction which exists within the community is one of intimacy (Wells, 1992). The practice in evidence in this multigrade class is sharply contrasted with adult-led pedagogy privileged in Inspectors' WSE and WSE-MLL Reports (DES, 2013, 2014)

In these data extracts, individual Junior Infant children are conceived as involved within communities of practice at micro and macro levels in their primary school. Wenger (1998) argues that institutions, such as the primary school in this case, may facilitate legitimate peripheral participation in learner identities by providing pupils with continued access to shared understandings with their teachers and the older children in their class. The acquisition of such practice-specific meanings and tools enables the individuals to take on specific identities – identities associated with legitimate membership of the relevant practice, in this case working as scientists. This

type of practice is not mentioned in Inspectors' WSE and WSE-MLL Reports (DES, 2013, 2014).

Key Findings Case One

The key findings from this case study relate to the role that teachers play in constructing an empowering learning environment for Junior Infants in the multigrade classroom. At a basic level there is the quality of Orla's interaction while she is working directly with the Junior Infant pupils. She makes frequent use of modelling strategies in her own pedagogy believing that children 'pick it up' from observing others and she also encourages the older children to be positive role models for younger children. The case study findings also demonstrate how the personal relationship which develops between teacher and the children is strengthened over years of working together as a community contributing to rich collaborative learning experiences for younger children.

The second key finding relates to the role of the teacher in promoting mixed age learning activities in the multigrade class. Orla shows that by facilitating regular and real opportunities for mixed age interaction and by choosing specific types of activities, the older children are afforded opportunities to act as more competent peers providing instruction and guidance to the younger children. In addition, Orla demonstrates the importance of providing particular types of resources and materials which are of interest to learners of varying ages and her pedagogy highlights how digital resources and the skilful using of technology can allow for adaptation of curriculum across grades. In the final section of the case study Orla's pedagogical interactions in whole class settings demonstrate how Junior Infants can be afforded status as learners and members of the classroom learning community.

Case Two.

Table 5.2: Case Two: Cashelbeag National School summary

Case setting	Multigrade classroom 4 grades: Junior Infants, Senior Infants, First and Second classes. Total number of children in the classroom: 24
Junior Infants	Ava: age 5 has one older sibling in the classroom Joanne: age 4 is the eldest in her family

	John: age 5 has one sibling in the senior classroom David: age 4 has two siblings in the senior classroom Ben: age 5 is the youngest in his family and has one sibling in the classroom
Practitioners*	Class Teacher: Edel Special Needs Assistant: Noreen
Parents	Tricia (Mother of John) Yvonne (Mother of Ben and Shane)
Other children in the class included in case study*	Senior Infants: Paddy, Matthew Second Class: Shane (Brother of Ben), Maeve, Kevin
Data	Field notes Observations Interview Transcript: Teacher's interviews Interview Transcript: Parents' interviews Interview Transcript: Junior Infant Pupils

* Please note only the children and adults in the vignettes below are named here. Hence the discrepancy between the actual number of children and adults in the classroom and those named in Table 5.2.

Overview.

This school is set in a rural location in Munster. It is a traditional building and the junior classroom itself is home to four grades. It is a long narrow room with children seated at tables and chairs in rows facing an interactive whiteboard and a blackboard. The teacher's desk is in the corner at this side of the room. The Junior Infant children sit at a far-off side of the room alongside the children in senior infants. The arrangement of the tables along the classroom wall as well as the presence of a large deep bookshelf overhanging the area seems to restrict the movement of the children in the infant classes. Most of the other storage cupboards are located at the other side of the room. A variety of equipment including table top games, maths materials and art materials are placed on shelves here alongside a sink and a cloakroom. There is also a large open-shelved trolley where most of the children's textbooks and copies are stored.

There are 24 children in this classroom. There are a large number of children in both the First and Second classes and some of the older children are physically very big which seems to emphasise the age range present in the class. The windows are

placed high on the walls and this has the effect of reducing the availability of natural light in the classroom. The deep green colour of the walls seems to accentuate this.

Edel, the teacher in this school is in her late 20s and has been teaching a multigrade class for a number of years. She is very enthusiastic about teaching Junior Infants in a multigrade setting and believes the younger children 'benefit hugely from being around older children.' Edel highlights the opportunities for increased social interaction with children of different ages as being particularly beneficial for the Junior Infant children she teaches. There is a very easy relationship between the children and the teacher and she has a warm, almost maternal approach to supporting them. Two support teachers work with this teacher both inside and outside the classroom, while a special needs assistant is present in the class at all times.

The analysis in this case study involved mapping the participation patterns of the Junior Infant children and establishing how the community of practice operated in the classroom. Initially, I explore how the teacher works to afford or restrict participation of Junior Infant children exploring how the use of classroom practices serve to include or marginalize Junior Infant children in the classroom community. From the analysis I also attempt to gain a deeper understanding of the way in which interaction between the younger and the older children is negotiated.

Pedagogical interactions

Research in the Irish infant classes, has been critical of the nature of early years practice and classroom practices observed have often been teacher-directed and overly didactic (NCCA, 2005, OECD, 2004, Hayes 2003). Furthermore, Mason and Good (1996) suggest that teachers in multigrade classes provided lower level curriculum tasks in order to eliminate distractions and maintain time on task. In this classroom Edel the teacher is firm in her belief that the use of workbooks and worksheets are essential in teaching a multigrade class. In the following Mathematics lesson on length each class group are to complete a set of three worksheets set at different class levels. The teacher begins by preparing the worksheet with First and Second classes. The Junior Infants are waiting and begin a conversation about the games they intend to play at break time. The teacher returns to their side of the classroom, sits on a child's table and asks the children to gather around her. She uses a visualiser to enlarge a worksheet on the interactive whiteboard. The children jostle for position around the teacher and eventually settle their attention on her.

Extract from field notes

T: What does length mean? Things are ….
Group: Long
T: And things are …..
Group: Short.
T: Everyone look at the junior sheet. What do you have to do? Do you remember we did a page like this yesterday it was 'Colour the shorter one in each row'. You finished your pages on length in your book so I photocopied three more sheets from another book. Today you have to do tick and colour the shortest object. Paddy (Senior Infant) show me the shortest.
Paddy (SI): This is the shortest.
T: Matthew show me the longest.

The extract shows that very minimal levels of 'joint participation' are constructed with the Junior Infants and that these moments of participation are fragile and subject to being disrupted in the busy context of this multigrade classroom (Rogoff, 1995). At the beginning of the lesson the organisation of the space is somewhat haphazard and although the children are close to the teacher and her tone is inviting, each child must fight for a standing space in a small cramped area. The initial jostling would seem to suggest that some of the children at the back of the group would like to be nearer the front, but as the material is presented in large format each child does have equal opportunity to see what is going on. However, the thrust of the lesson is adult-directed as the teacher utters sentences for the children to complete. It seems as if she wishes to have the children occupied while she moves to work with the Senior Infants. One might expect that given that they have been studying the topic of length for at least some time there would be an increase in the complexity of the task. However, there is a distinct lack of open-ended questions or tasks which might challenge and motivate the children to deepen their learning (Siraj-Blatchford *et al*. 2002). When there is an interruption from an older child the teacher does not leave the group she is working with thus sending a message to the younger children that their work is a priority for her.

A boy from second class comes up to the group as he has a difficulty with his work.
2nd: I can't do this; I don't know what to do.
T: Go to Maeve, (a girl in second class), she will sort you out.
The teacher notices that one boy from the Junior Infants, David, has moved to the periphery of the group and is beginning to lose concentration.
T: David you didn't get any chance.

Then the teacher distributes the sheets to the junior infants. They set to work while the teacher discusses a worksheet with senior infants. When she is finished this work she corrects the work of the Junior Infants.

Although the teacher interacts with a group, Edel also shows a concern for individuals and is mindful of one boy beginning to drift away and lose attention. In the next part of the extract we can see how the teacher moves to working with this individual attempting to include him in the activity. Wood (1998) highlights the intuitive knowledge of the teacher in correctly recognising 'crucial moments' for scaffolding the learning of young children. The teacher does recognise that David is struggling but once again what seems important is the completion of the worksheet rather than working with David within his Zone of Proximal Development (Vygotsky, 1978).

The teacher looks at David's work first.
T: You are after flying through this! This one is the …
D: Shortest
Then teacher notices that David has completed the other items incorrectly.
T: Which one is the longest? Should you have done this one?
D: No

Edel tries to encourage David to use his knowledge acquired in the earlier group session and is giving David an opportunity to contribute to it. David does not verbalise his responses but points to the correct answer. Edel accepts this response and confirms his response with her remark 'It's longer isn't it?' In this sense Edel is beginning to legitimize David's contribution attempting to create a positive atmosphere thereby encouraging his participation further.

T: Sit up straight on your chair. Which one is the longest? Find the one that is the longest.
David points to the one which is the longest.
T: That's easy now isn't it?
Other children are coming up to teacher with their sheets for correction. David is sitting directly underneath the teacher. He turns to speak to the child next to him.
D: Danny, do I tick both of the boxes?
He still isn't sure what to do.
T: Right David come here. Is this one longer or shorter? It's longer isn't it?
The teacher allows David time to tick the correct box before turning on to the next page.

A knock on the door interrupts the classroom for a second time and Edel attends to the visitor. When she returns again, she resumes working with David although there are several children waiting for her attention. Despite Edel's

encouragement, David seems to have lost interest in the task. Perhaps the level of challenge in the final activity is outside David's Zone of Proximal Development or perhaps he is distracted by interruptions. Edel eventually completes the activity by writing the numbers for David to copy in order to have the worksheet completed. In this instance Edel clearly takes a technical approach to curriculum where each child, regardless of ability or developmental level, is presented with the same curricular activity.

> *The task on the next page is to use non standard measurements to see how long an item is. The children will have to complete a sentence 'The pencil is five counters long'.*
> *T: Now David you are well able for this. I will write the numbers in for you.*
> *The teacher writes the numbers under the counters and then David can insert the correct number in the sentence.*
> *T: Try this one before you go down. Right good.*

At the beginning of the lesson the teacher was keen to encourage David's participation in the lesson. However, because of the many interruptions and demands made on the teacher the sustained interaction time was not generally available or when it was available it was not well used. In addition, Edel's class management style was haphazard which further restricted interactions.

Yvonne, the mother of Ben also considers the issue of how the teacher constructs an appropriate learning climate in the classroom. Yvonne understands that time is being distributed among all the classes. She contrasts the teacher's use of time with her own experience of being in what she considered a large single grade class. It is interesting to note that she remembers exactly how many pupils were in her class when she was in primary school and her feeling that ' there were twenty seven of us in the class in school and the teacher didn't have time to get around to everyone.' However, there are almost as many children in her son's multigrade class and yet, Yvonne's overall strong feeling is that 'they are all getting time which stands to them.' Equally, Tricia, John's mother presumes that the teacher divides her day among each of the classes and that each child gets the attention needed. The parents are either unaware or do not question the complexities which arise in the flow of teaching and learning activities of the classroom. This finding was replicated in many of the other case study schools and will be discussed further in the cross case analysis.

Interestingly, when I asked the Junior Infant children about their teacher having time for them it was clear they did not agree with their parents. Their

perception was not of a teacher interacting with them but rather spending her time organising and correcting work for them.

> *I: What does your teacher do during the day?*
> *John: Just gives us work.*
> *I: Gives you work?*
> *Ben: And she just be on the computer. The laptop. And she always gives us corrections and stuff.*

The comments in the extract above show that Junior Infant pupils perceived the locus of control and power rested with Edel, their teacher, thus restricting their opportunities to exercise initiative or agency in interactions and also influencing their potential to develop identities as enthusiastic, engaged learners (Siraj-Blatchford *et al.* 2002).

Participation

Teachers of multigrade classes generally adopt a graded approach to the teaching of Mathematics in a multigrade class (Mason and Good, 1996). One of the prevalent teaching strategies employed in Mathematics in the multigrade classrooms in this study was for the teacher to explore a common theme with the whole class and then to present each class group with a separate task or worksheet. In the first extract of this episode the teacher initiated an activity on the topic of 'Money' with Junior and Senior Infants. The children, who were grouped in pairs, were required to sort and name a variety of coins. The teacher has also distributed worksheets for the younger children. The teacher turns her attention to the older children who are completing a page of their mathematics textbook, before she returns to oversee the Junior and Senior Infants again. However, Edel is distracted and does not appear to observe the Junior Infant pupils sufficiently to be able to tune in to them (Wood and Attfield, 2005). As the episode continues, several features emerge which contribute to constructing a situation marked by an absence of participation on the part of the Junior Infants. These include the questioning style of the teacher, the type of questions asked and the positioning of the Junior Infant pupils by the teacher.

> *T: Ok junior infants, how do you know this was a 1 cent coin? Is it a big coin?*
> *Ava (JI): Because there is 1 written on it.*
> *T: How many one cent coins makes two?*
> *The teacher is interrupted by an older child who has come to her to have his work checked. She looks quickly at his work and then ushers him back to his seat.*
> *T: (referring to the worksheets) What do you think you do in this worksheet?*

Ben: You fill in the numbers at the end.
T: I think it's easy enough.
The children begin to complete the sheet. The learning support teacher comes to take a child from second class. Another child from senior infants returns to the class and the teacher explains the worksheet to him.
T: Is that alright? Good boy. Now, colour that sheet when you are finished.

The sequences in this interaction are all initiated by the teacher. She asks closed questions and accepts answers from any child who shouts out. The replies are brief and are not used to explore or deepen children's understanding of the concepts of money. Asking mostly factual questions with predetermined answers means that the teacher may have missed opportunities for supporting learning through helping pupils make connections between what they already knew and new ideas (Siraj-Blatchford and Manni, 2008). Indeed, throughout the entire episode the Junior Infant pupils were limited in their opportunities to pursue their own learning agenda. The strategy used by the children to exert their own influence by concentrating on their coins is overlooked by the teacher and they are denied further participation as the teacher brings the lesson to a close quickly.

T: Ok, that's it for today with the money. The next time second will be getting change. You should keep an eye on it in the shop.
Ch: Can we do it with money like the juniors?
T: You have done that before.

This section of the extract above reveals a discrepancy between the value the teacher placed on younger children learning from older children and the extent she actually made use of the opportunities. The teacher's intention was to involve all children in this whole class activity and this is a critical moment in the multigrade class where an opportunity arises for the teacher to naturally extend thinking and learning with the Junior Infants. However, as the Junior Infants are not encouraged to be involved at all the opportunity is lost. Analysis of this interaction suggests that generating and extending pupil thinking requires sensitive shaping of the classroom dialogue and sensitive listening to pupils' responses within the 'construction zone' (Newman *et al.*, 1989). The findings of this reveal that in particular, in a multigrade class what is important is that teachers not only plan the first question in a sequence

carefully, but also consider how subsequent questioning might extend and support learning and understanding of children with varying levels of expertise.

Interaction with older children

The teacher claimed there were several social and cognitive benefits for younger children being educated in multigrade classrooms. Most notably, Edel believed that younger children benefited socially because they could imitate the 'positive behaviour of the older children'. In terms of cognitive benefits, the older children were viewed by Edel as leaders and the younger children had lots of opportunities to observe and imitate more advanced practices especially in whole class activities. Despite the fact that Edel speaks of the social and cognitive advantages Junior Infants have in a multigrade situation, there was very little interaction observed between the Junior Infants and the older children throughout the day in the classroom. Over the course of the observation period, there seemed to emerge two almost distinctive groups of children; the younger children in Junior and Senior Infants and the older children comprising of those in First and Second classes. Because there were so many older children the teacher gave them a significant amount of attention. In addition, the layout of classroom was not conducive to any informal interaction between the groups of older and younger children. The younger and older children sat at opposite ends of the classroom and so rarely had the opportunity to consult or engage with one another. The Junior Infant pupils were not in a physical position to interact with peers and therefore did not benefit from informal interaction. Having little or no opportunity to integrate with the older children meant that the Junior Infant pupils did not benefit from being with older children as might have been expected (Galton and Patrick, 1990). Neither did the older children themselves in general voluntarily help the younger children nor did the teacher encourage them to do so.

Parents were also aware of the lack of integration of older and younger children in the classroom. Yvonne whose two sons are in this classroom, Ben in Junior Infants and Shane in second class, attributed this lack of integration in part to her older children being embarrassed by the behaviour of his younger sibling. Tricia echoed this sentiment when she brought up the issue of the age range within the class as possibly being a factor which could contribute to the lack of mixed age interaction.

I: What do you think it would be like to have two children in the same room?
Tricia: Well I'd say it would be grand at that age. But like John's age now and maybe a child in Second class, but I'd say it would never happen any way a child in Senior Infants and a child in Fourth class in the same room like. Oh it would be desperately embarrassing for the older child.

Almost all of the social interaction between younger and older children that Tricia is aware of takes place in the playground as she hears her children speaking about their interaction at home.

T: I think it's great, as in like they have to mix with the older children as well. I think it's great really and it's a big school which is better again. I think the yard is great. The older children are allowed to play with the younger children, a lot of the time anyway, from the stories I hear anyway. But ehm yeah, I think it's a great idea, I do. I know older children can be rougher, than the smallies like. But they have to find their own way as well a bit. A small bit of rough and tumble doesn't do any harm. For the girls I don't know, but the boys I think they get on very well.

The only space in school where the younger children seem to freely integrate with the older children is in the playground. The children reported that the grass area of their playground where football was played was the most important part of the school. However, they are only sometimes allowed to play on it. I have observed the younger boys frequently hang around the grass area hoping to become involved in the game either formally or informally. In the thematic analysis presented in Chapter 6, the boys' descriptions of their interaction with older boys at playtime are further explored and show the haphazard nature of their participation in the football game. Through their partial involvement in or exclusion from the football game in the playground the individual Junior Infants learn which ways of participating are privileged and which are not. The children are not able to explain when they might be involved in the football game and neither can they explain how teams are picked or the rules of the game. The younger girls in the class do not play football. They tell me this is because they are not allowed to but neither do they seem to have much interest in pursuing it even though older girls are involved in the game. Clearly, membership of this multigrade community is a complex process which involves struggle, negotiation, construction and deconstruction of identity.

The next extract shows how Junior Infant children experience real difficulty and challenge in negotiating participation in a whole class activity where it was

crucial for them to be accepted as legitimate members of their classroom community. The structure of the sequence is a triadic one in the format of 'Initiation', 'Response' and 'Feedback' (I-R-F) that often appears to represent a pattern of discourse in classrooms (Sinclair and Coulthard, 1975). Edel briefly highlights vocabulary or concepts in a quick fire session and then children are set tasks in workbooks on an individual class level. In this instance the topic is winter and the teacher uses some pictures of different seasons which are shown on the interactive whiteboard to initiate discussion.

T: What do you see in the picture?
Group: Snowman
T: Yes. 1st and 2nd is this a winter picture? Niamh. what's that?
Niamh (SI) : Holly.
T: How do we know it's a summer picture?
Cian (JI): He's wearing a short sleeved shirt.
2nd: He has an ice-cream.
T: What season is the next one?
Group: Spring
T: And the next one?
Group: Autumn.

We can see that although the material and questions are set at an appropriate level for the younger children, only one Junior Infant has an opportunity to reply on his own. However, the material lacks challenge for the older children and they show by their facial expression and voice tone that they are not stimulated. The teacher accepts group answers and moves quickly through the pictures. In a sense what is happening here is that the pace of the lesson is being dictated by the needs of the older rather than the younger children. The interaction illustrates the challenge which is also acknowledged by the teacher, of finding appropriate material for the whole class to engage with and the difficulty the teacher has in balancing the needs of all the age groups in the class.

Secondly, how the teacher engages with the children is a point for consideration. She asks a question to which she knows the answer (What season is it?) or to which there are only a limited number of acceptable responses (How do you know it is summer?). The responses are typically short and factual and serve as a check of children's recall of facts. Overall, the conversation shows a highly imbalanced power relationship between the teacher and pupils enacted in conversations through highly controlled question and answer sequences. Pupils are

positioned in a passive role where they are not in a position to discuss their knowledge of events in this case the signs of winter or to reveal their personal interpretation of events. There is no evidence here that the teacher possesses any intimate knowledge of the Junior Infants or their knowledge and therefore she remains unable to give them the kind of support necessary in whole class contexts (Wood, 1998). In general, the teacher specifically invites the older children to engage more often in the question–answer exchanges that form a central part of whole class pedagogy. Successful participation in this whole class interaction is generally not just a matter of knowing the right answer, but of giving the answer quickly and loudly.

Pedagogical content knowledge enables teachers to select what parts of the curriculum might be most relevant to the needs of the children (Siraj-Blatchford *et al*., 2002). Analysis of these extracts suggests that Edel's pedagogical content knowledge and her selection of pedagogical strategies is inappropriate for this group and influences the kinds of learning experiences she constructs in the classroom. The importance of selecting appropriate strategies suggests that although there are many pedagogical approaches which are effective in early childhood situations, particular types of strategy should be selected judiciously to address specific needs with none being effective for all purposes (Bowman *et al*, 2001). In Cashelbeag, NS the Junior Infant pupils had fleeting and arbitrary opportunities to participate because of the strategies and curricular content chosen by their teacher. Through their partial involvement in, or in some cases exclusion from, the various activities of this multigrade classroom, the individual Junior Infants learn which ways of participating are privileged and which are not. Older children tended to participate more than younger children in this class because they voluntarily involved themselves more in the learning interactions, spoke their answers more assertively and joined in collective responses more vigorously than their younger classmates. Clearly, membership of this multigrade community is a complex process which involves struggle and negotiation and it is important to point out that the consequences of such differential participation may be that the learning gains in the classroom are also experienced differentially. It could perhaps be argued, that the Junior Infants' lack of involvement may lead to them underachieving in this class.

A Community of Practice: 'Witches at Halloween'

In this section, I examine how the notion of community of practice is taken up in this multigrade classroom with particular focus on a collaborative writing exercise to understand how learning is happening for the Junior Infants in this context. Within this collaborative group activity the process of meaning making is essentially a social activity centred around 'the creation of shared knowledge and understanding (which) is rarely, if ever, a matter of simply pooling information, it has to be generated by working with information' Mercer (1995, p. 67). The Junior Infants are viewed as not simply receiving, internalising and constructing knowledge in their mind but enacting it as pupils of the classroom participating in the practices of this sociocultural community.

At the beginning of the school year I noticed how the Junior Infants were being helped to move from peripheral participation into full membership of the community of practice. In the activity described below, the presence of one of the Junior Infant pupils, a girl called Joanne who has special educational needs, affects how the other children negotiate participation in this collaborative working group. The teacher chooses children to be in various groups of four or five children from different classes. A lot of voices call for Joanne to be in their group. After a time the teacher assigns Joanne to a group. She has a special needs assistant, Noreen who sits with her. There are four children in this group among which are pupils from Junior Infants (Joanne, John) and Second Class (Maeve, Kevin). The SNA Noreen is also with the group.

> *Joanne is very disruptive within the group. She begins to grab pencils and crayons that are at the centre of the table and Noreen tries to take them off her. She is getting lots of attention from both the children in the group and the adult. Each group gets a blank sheet on which to draw and write about the witch. The first task is to decide the name of the witch.*
> *M: Ok what's her name?*
> *J: Lulu!*
> *The second class child writes Lulu and the others laugh.*
> *M: What colour hair has she?*
> *J: Ginger.*
> *M: Who wants to draw the picture? Ok John you do it.*

As evidenced in the above extract, the newcomers John and Joanne begin to engage in the practice of creative storytelling in attenuated ways and are invited to

move forward to more complete participation by Maeve who appears to have the knowledge and skills critical for this community of practice. Thus, the concept of 'practice' or 'learning as doing' (Wenger, 1998, p.4) described as being part of the social participation in learning, characterises the initial stages of the mode of engagement of Joanne and John as novice learners who are engaged in the actual practice of experts but only to a limited degree.

> *Joanne gets a sheet for herself and begins to draw her own witch.*
> *Noreen: You can't have that. What do you want to do?*
> *Joanne: Witch, witch.*
> *Noreen holds her hand and begins to draw a witch with her*
> *The teacher is walking around the classroom. She observes some of the groups for a short while and then has a word with them.*
> *T: Whatever is in the description must be in picture. Pick someone to be the spokesperson.*
> *John (JI): What's a spokesperson?*
> *Kevin (2nd): I'll be spokesperson. You have to say that out loud up there.*
> *Meanwhile Joanne has completely disengaged from the group. The teacher invites the spokesperson of each group to the front of the class to show the picture and read the description. The older child from this group reads out the description of the witch.*
> *Kevin: By the way all these sentences were made by Joanne and her name too.*

Wenger (1998) argues that identification with a community of practice requires negotiation and subsequently ownership of meaning. The children in her group are delighted that Joanne joins them and at the beginning of the extract we see Joanne's contribution of a name for the witch is automatically adopted. She doesn't have to negotiate for her contribution to be accepted and the older child writes the name. The older child in particular is making a big effort to include her as further evidenced by the final comment above. There is opportunity afforded to Joanne and John by the older members of the community to take up the 'practice' and engage in 'learning as doing'. In addition, the structure of the mixed-age group work makes access to the resources of the community resources a possibility.

Joanne is not chosen to draw the picture for the group or her choice of hair colour is not included. Eventually she loses interest in the group and removes herself from the activity by deciding to draw her own picture. Wenger (1998) suggests that individuals develop identities depending on their level of participation in the activities of the community of practice. Furthermore, individuals can become marginalised from a community of practice since members whose contributions are never adopted

develop an identity of non-participation that progressively marginalizes them. Here Joanne disengages from the group and is supported by the SNA, Noreen. Given the nature of Joanne's special educational need, it may be a case that Joanne cannot hold attention for this task which affects her participation. However, neither does she receive the necessary support from the Special Needs Assistant to sustain her participation in the group. The other children in the group are not encouraged to be collectively responsible for the task at hand (Kumpulainen and Wray, 2002; Kovalainen, Kumpulalainen and Vasama, 2002) and Joanne remains on the outside of real engagement with her fellow group members.

Throughout the observation period, I noticed Joanne's engagement and interaction with her classmates continue in this pattern. Initially she would engage with the activity but soon lose interest. The important point about Wenger's (1998) construct is that the process of becoming an insider involves active learning to reshape the set of dispositions to meet the new circumstances. The limitation of the process implies that the burden of learning tends to fall on the apprentice. Therefore, in order to encourage the success of the community of practice, it is also incumbent upon the receiving community to make reciprocal efforts to integrate the newcomer and encourage their meaning making as 'learning by experience'. In this setting the teacher's participation in the interaction of the small groups includes reminding the pupils about the norms of participation and encouraging the class to engage in co-constructed perspectives. However, she fails to help children negotiate the challenges faced by them in their attempts to construct a reciprocal relationship necessary for collaborative meaning making.

Key Findings Case Two

The key findings from this case study highlight the challenges related to dealing with the contextual constraints evident in the multigrade classroom. In terms of interactions between the teacher and Junior Infants, the findings demonstrate the pupils in Cashelbeag NS experience qualitatively different interactions with their teacher than those experienced by the children in Abbeytrasna NS. Patterns of interaction remain teacher focussed and teacher directed models of pedagogy which concentrate on older children are the norm. The findings indicate that faced with four grades the teacher reverts to frequently teaching each grade separately, whilst pupils in the other grades undertake individual seat work. For the Junior Infants the seat work is based on text books and lacks cognitive challenge.

Evident across the vignettes presented is the limited nature of pupil participation in mixed age interaction. In whole class lessons participation of the Junior Infants in classroom learning was not supported and they experienced a strong imbalance of power relations within pupil interactions. Furthermore, opportunities to engage in smaller mixed age groups were inconsistent and as a result access to shared understandings of their learning community was restricted for the younger pupils. These findings are reflective of what Mason and Burns (1996) point out that constraints in relation to the management of cross-age grouping mean that its usefulness has yet to be proven.

5.3 Part Two: Cross Case Analysis

Table 5.3: Case study schools, teachers, children, SNAs and parents

Case 1 (Abbeytrasna N.S.): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Orla	Patsy Nora	Fiona	11	2	Rachel Jim	Snr Infs Toby Nadine	Margaret(Rachel) Sandy (Jim)
						First Ryan Shane	
						Second Maeve Cian Thomas	
Case 2 (Cashelbeag N.S.): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Edel	Aileen	Noreen	24	5	John David Ava Joanne Ben	Snr Infs Norma Paddy Matthew Second Shane Maeve Kevin	Tricia (John) Yvonne (Ben)
Case 3 (Drumleathan N.S.): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Maureen		Hilda	30	3	Sheila Linda Kate	First Tadhg Marion Second Ivan Ian	Valerie (Kate)

Case 4 (Scoil Eirne): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Jane	Rose	Fidelma	12	2	Clodagh Darren	Snr Infs Sally Kieran Isabelle First Katherine Rebecca Second Ryan Evan Heather	Declan (Clodagh)
Case 5 (Gortglas N.S.): Four grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Deirdre			24	8	Eve Allanah Áine Réidín Tyrone Greg Seán	First Pat Jason Second Miriam Conor	
Case 6 (Kildubh N.S.): Three grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Ann		Claire	19	7	Evan Edward Colm Elma Niamh Cathal Brian	First Aoibhinn Bill	
Case 7 (Scoil Rathóg): Three grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Martha			22	7	Jessie Megan Caoimhe Alison Danny Fionn Hugh	Snr Infs Paula	Cara (Megan) Denise (Danny) Barbara (Fionn)
Case 8 (Ballyglen N.S.): Three grade classroom							
Teacher	Support Teachers	SNA	No. of children	No. of Junior Infants	Junior Infants	Other children	Parents
Bridget			22	7	Sarah Emma Noah Oisín	First Jerry	Bernice (Emma) Danielle (Sarah) Gina (Noah)

* Please note only the children and adults in the vignettes below are named here. Hence the discrepancy between the actual number of children and adults in the classroom and those named in Table 5.3.

This section of the Findings and Analysis chapter seeks to present some of the key themes which emerged from a cross case analysis. As the focus of this study is the pedagogical approaches taken to early years in multigrade classrooms, the cross case analysis is based primarily on classroom observations. However, reference is also made to interviews with the children, teachers and their parents in order to provide a context for these observations and to highlight discrepancies and congruence among all of these varying elements. In addition, a deeper, more holistic understanding of the key themes is sought and in research terms a 'triangulation' of the data is achieved. Extracts are given throughout both from original field notes and interview transcripts to illuminate the key themes. Each of the four themes: *Pedagogical interactions, Participation, Working with Older Children and Community of Practice,* are linked to each other and are also closely related to the core concepts which emerged in the thematic analysis of the study in Chapter 6 below. ('*Apprenticeship and Agency: Challenge and Complexity', Identity and Belonging: Belonging and Identity? and 'Power and Positioning'*.

Key Theme One: Pedagogical interactions

The classroom situations in the study varied from schools where there were three grades to situations where there were four grades with one class teacher. The class size varied from eleven to thirty children. In these multigrade classrooms, three main grouping options were used by teachers. The Junior Infant children were taught either as part of a single unit of all classes together, in individual class groupings or were combined with senior infants.

Three main approaches to teaching: technical (conforming), practical (reforming) and critical (transforming) were further highlighted in my study (MacNaughton, 2003). In the first approach, the teacher largely controls interactions, while the second approach places the child at the centre of learning. The third approach recognises the agentic child affording her a powerful position as co-constructor of meanings in reciprocal relationships with the adults in the setting. Alexander (2008) refines this categorisation further to include the following versions

of teaching: transmission, negotiation, initiation and acceleration. While each teacher displayed a repertoire of teaching approaches throughout the observation period they did in the main position themselves either as directors supporting children's learning in a more formal way or as facilitators where they engaged with children as active learners.

Ann works in Kildubh National School where there are nineteen children divided almost evenly into three grades. The classroom itself is modern but a little cramped. The children have a brightly coloured uniform and seem very eager. They sit in three large class groups at sets of grouped tables. Ann's approach to teaching in a multigrade school is very formal and she largely adopts a 'technical' or 'conforming to society' approach to curriculum (Sugrue, 2004). She believes 'You have to be very organised for teaching in a multiclass. I am here every day after school until 4.30 getting things ready for the next day. If I didn't there would be mayhem.' The classroom is tightly ordered and children are monitored closely. Ann's practice echoes the style of teacher-led pedagogy which is privileged in the WSE and WSE-MLL (DES, 2013, 2014) reports analysed in Chapter 3, Section 3.11. Neatness and tidiness are priorities for this teacher. Ann makes frequent use of transmission strategies, being very precise and exact in delivering instructions and she often reinforces these instructions by asking the children to repeat them (Alexander, 2008). The extract below shows a reading lesson in which children (Colm, Niamh, Elma and Brian) are reading.

> *T: Open up your reader on page 21, fiche a haon. Again you don't need your word list at the moment. Put it away neatly. We are still waiting. Put your books flat on the table.*
> *The children read each line of the reader line by line.*
> *C: Kitty looks into the box.*
> *B: She sees a pirate hat and little boots.*
> *E: 'Look! I can be a pirate with this hat and boots!' she says.*
> *T: Now read it in a big loud voice. Get your voice up.*
> *N: 'I want to be a monster' says Zack.*
> *T: Now read it backwards.*
> *N: Zack says monster a be to want I*
> *T: Find 'cannot' Evan.*
> *Evan points to 'cannot'.*
> *T: Colm, can you give me another way of saying cannot.*
> *Colm doesn't answer. He looks frightened. There is a knock at the door. It is the learning support teacher and she has come to collect Colm for his extra support class.*
> *T: I'll send him in a moment.*
> *Colm appears crestfallen.*

T: Oh goodness no!
Teacher whispers instruction to Colm again and then whispers can't.
T: We will learn about apostrophe in First class. Ok Colm?
C: Yeah.
T: Yes, teacher.

In structuring pedagogical relationships the class teacher Ann acts as a director and is in control of learning. Ann therefore decides what is to be learnt and how and when this learning will take place. The interactions are mainly concerned with the correct and quick execution of the task and are of a superficial nature, seldom succeeding in tapping into children's thinking, let alone challenging and extending learning through scaffolding learning. The role of the child in this interaction is reduced to being an executor of those parts of the task which s/he can do correctly.

Ballyglen National School is an urban multigrade school. There are twenty two children in this three grade classroom. In her pedagogy, Bridget the class teacher works from a 'practical' or 'reforming' perspective on curriculum. She particularly focuses on the younger children recognising that 'there are many routes into learning' and therefore she believes she must draw on a wide repertoire of pedagogical skills to enhance learning for young children. Every morning begins with the literacy hour and during this session Bridget, facilitates a workshop format with the Resource and Learning Support Teacher along with two Special Needs Assistants allowing the children to work in small focussed groups at their own ability level. 'Negotiation' is the main strategy used in these sessions with the adults working like experienced partners encouraging children to be active in learning (Alexander, 2008). It is an effective strategy allowing the adult to facilitate a group of children with diverse learning needs. The classroom is a hive of activity with five adults in the room each seated with a group of four or five children. Bridget's group has a mixture of both Junior Infant and Senior Infant children. In the next extract the children receive differing amounts and kinds of support from their teacher. Sarah and Emma need little help whereas PJ, a Senior Infant, benefited from patient prompting and repetition along with the other children.

B: Here's our new book. What's the book about?
PJ: Giraffes.
B: How many giraffes?
Group: three
Bridget: Do we know any words in the title?
S: At the zoo
E: At the zoo

B: Come on we will all read it together. I didn't ask you to turn the page PJ. What's this letter?
Group: Z.
B: What is the sound of the letter?
Group: ZZZZZ
B: Right, turn the page everyone. What animal is this? Turn the page pet.
PJ turns a few pages together. The teacher helps him to find the correct page.
S): It's a tiger.
B: Can you find the word tiger? T t t
Emma and Sarah point to the word 'tiger'.
B: Well done Emma. Sarah has it too.
The teacher helps PJ to find the word and he puts his finger under it. Kevin reads the next page.
K (SI): Come and see the monkeys. They eat bananas!
B: What do you see after monkey?
Group: A full stop.
B: Will ye all find your favourite page? Sarah and Emma read their favourite page.
The timer goes and all the adults tidy up and move on to a new group. Each group engages in a different literacy based activity with a 'new' adult. The children are engaged in five various activities over the period of the Literacy Hour.

Tharp and Gallimore (1988) suggest that modelling is a major mechanism in assisted performance. In the extract above both Bridget, the teacher and the Junior Infants Emma and Sarah are modelling the reading process. PJ is seeing and experiencing how a task is successfully approached and can practise this with guidance and supervision. The extract also shows how PJ benefits from working in small mixed grade groups in the multigrade class. Bridget also highlighted that one of the advantages of the multigrade system was that older children had more opportunity to revisit material. When working in a small group the teacher was also in a position to monitor the children's activities very closely. Within the study class groupings are usually small, ranging from two to eight pupils and this arrangement is easier for teachers as larger groups will almost always have a wider range of understanding.

Scoil Eirne is a two teacher school where there are twelve pupils in the classroom. The school building, set away from the main road in a quiet, leafy cul-de-sac, is modern, bright and airy. The classroom itself is extremely spacious and the Junior and Senior Infants sit at one side of the room around tables grouped together. Jane, the class teacher, works from a 'critcial' or 'transforming' perspective on curriculum (MacNaughton, 2003) acknowledging the importance of scaffolding for young children who have additional emotional needs. One is struck immediately by

her wonderful voice and encouraging manner. Along with Jane, the resource teacher Rose and the special needs assistant Fidelma also take an 'acceleration' approach as they recognise the need for intimacy and emotional engagement in the quality of the interactions they have with the young children in their care. They are extremely kind and patient as they scaffold, encourage and provide positive feedback to the children. Acceleration strategies draw on Vygotskian thinking and practice where the educator's main role is leading the child into areas of learning which are slightly ahead of his development. .

In the extract below, the children tell their news as news presenters. This gives a certain importance and identity to this news. Each child is involved with this activity. Rose, the resource teacher is working with Clodagh a junior infant with special educational needs. They begin by rereading over some previous news which they both enjoy remembering. Clodagh draws a picture first on which she and Rose base the news story. Rose the learning support teacher scribes as Clodagh tells her news.

R: Is something important happening?
C: It's my birthday!
R: So we are going to say it's my birthday tomorrow.
Rose scribes this for Clodagh who smiles and nods her head.
C: I am having a marshmallow cake. I'm going to be six.
R: How many candles will you have?
Rose begins to write 'I will have six candles.' And then Clodagh corrects her.
C: Six pink candles.
R: Oh yes of course, pink candles. Do you think your friends will bring you presents?
C: Sally is bringing a toy dog.
R: How exciting! I wish it was my birthday.
C: When is your birthday?
R: In September. We have very good and very exciting news.

Given the importance of reciprocity, how feedback is both given and understood helps to set expectations and appropriate responses. In this extract Rose gives positive feedback to Clodagh for her efforts in engaging with the newstime activity. Rose uses both formal aspects, for example, her spoken comments as well as informal aspects including smiles and hand gestures which enhance Clodagh's sense of herself as a capable person and a competent learner. With plenty of support and scaffolding Clodagh is afforded the opportunity to take her learning in a direction in which she would like it to go. Her father Declan reports that Clodagh had some difficulty in settling into school. However, he commended the teachers for caring and

supporting her and believes that through her Junior Infant year, Clodagh built a positive image of herself. She thrived in an environment where she saw that her contributions to the community were valued and a positive image of her as a learner was reinforced. The message in this extract was clear; that Clodagh belonged in Scoil Eirne. This message was repeatedly conveyed to Clodagh.

Drumleathan National School is also a two-teacher school but in contrast to Scoil Eirne, there are 30 children in this multigrade classroom. In general, the teacher, Maureen works alone in the classroom with occasional help from Hilda, an SNA who works in both classrooms in the school. The teacher is warm and encouraging and she makes allowances for the younger children. The tone of voice she uses with them is soft and reassuring and she is noticeably more playful in her approach with the Junior Infants in comparison to her interaction with the older pupils. The classroom itself is exceptionally big and each class group has an easily identified seating area. The infant section of the classroom is equipped with a play area, library corner and a sand tray. This designated space was unique to Drumleathan NS and I did not see a similar play area in any of the other schools. During the day the area is a focal point for the whole class as they assemble here for their first lesson of the day and later gather again there for the religion lesson.

The next sequence showing how the teacher moves between activities and groups, illustrates how the teacher, who is also the principal of the school, operates in a large multigrade classroom and helps to give a sense of the complexity of her role. The Mathematics lesson is one which most teachers report teaching separately to each class grouping and therefore gives a comprehensive picture of the intricacies of managing four class groupings (Mason and Good, 1996). The teacher is the sole adult with the children and it is clear from the vignette that the absence of a second adult in this large class has a direct impact on the children's levels of engagement during the lesson (Morgan and Ó Slatara, 2005, Kaloaja and Pietarinen, 2009). Maureen, the teacher gives a brief introduction to each of three Maths activities. Each class grouping begins their activities as soon as the teacher has finished the explanation. She then comes over to the Junior Infant group and gives them her direct attention.

T: Guess what, I took this page out of a Senior Infant book. You have to count them and write the number in the box. Write 0 with your finger on the table.
All: Round like Clever Cat.
Linda: 1, that's easy.

The secretary comes in with the calendar and has a brief discussion with the teacher before putting the calendar back near the teacher's desk.
The teacher returns her attention to the junior infants.
T: Watch 2 is it the same way as Clever Cat?
All: No!
T: Now try 3, with another round at the bottom.
A child from first class interrupts with a complaint that another child is distracting her. The teacher turns her head to look in the direction of first class.
T: That's very disappointing. Then comes 5.
The teacher answers a question from another child in first class. The teacher becomes aware of increasing noise levels from Senior Infants who have been chatting and playing with cubes while they were waiting.
T: I know Senior Infants, you have been very patient. I will be with you in a moment. Junior Infants, when you are finished colour in for five minutes and then I will tell you when to get the balance out.
S: What colour are fish?
K: Gold fish are orange.
Linda: I think fish are grey. Or if it's an Angel Fish it would be yellow or a Sting Ray would be...
Linda is cut short as teacher has come over and is ready to look at the children's work.
T: Let me take a quick peek at the juniors work. Oh, this work is like Senior Infant work, it's absolutely beautiful! Good girl. Now look at this one. Oops, hang on. What's that? I never saw a 5 looking like that. It doesn't look like this one (showing another one) Make it like that.
L: I don't have a rubber.
T: Oh dear does anyone have a rubber?
Several children answer together offering the teacher an eraser.

In Dunphy's (2007, 2009) research teachers reported that the multigrade context and large class size created difficulties in enacting appropriate Mathematical strategies with younger children. These challenges are mirrored in the following extract which shows this vignette Maureen managing a complex orchestration of activities within the classroom. In addition to having four grades in the classroom, the class size is large at thirty pupils. Maureen has planned a mixture of activities with each class and had to move within the groups to supervise (See Appendix 12 for the complete vignette). However, the reality is that teacher time with each group is extremely short and does not allow for any sustained interaction. For example, when Linda made the comment above about the angel fish there was a golden opportunity missed to scaffold in a natural conversation (Goouch, 2008). The teacher is so busy that she does not have time necessary to observe and listen to the children in order to capitalise on such opportunities (Wood and Attfield, 2005). Her interaction with the Junior Infants is to correct their work and give feedback. In interviews with Maureen

she often expresses frustration when she is forced to rush her interaction and while her curriculum perspective would be child-centred, she is often pressurised and feels she is left with little choice but to implement a transmission approach. Her experience reflects the findings of Anning and Billet (1995) who reported that teachers of early years classes believed their time was severely restricted in a multigrade setting, leaving little left for interaction with individual children or with small groups.

One parent is acutely aware of the restricted time available in multigrade classes. Kate's mother a primary school teacher herself, noted

> *'Let's say you'd a half hour literacy time. That half hour has to be split ten minutes, ten minutes, ten minutes or however you are going to work it. They are not getting a full half hour's teaching time and I think that's a big negative for all the subjects in a multi-grade class. I've seen it from the outside when I have been teaching that say for the maths lessons, it's just, they are not getting their full quota of half an hour teaching time that they should be having because it's just not possible so they are only being taught ten minutes really and ten minutes each.'*

In particular, she believes that the Junior Infants lose out because their work is at a simpler level. She says:

> *'Then I think often then the younger ones, because they've got the easier activity, get pretty much left to it. They circle the numbers threes and then they do that and they can go off and play. I don't know is there even a way around that, but I think that that can be difficult.'*

Scoil Rathóg is a three teacher school. There are twenty two children in this classroom accommodated in a pre-fab located away from the main school building. The teacher, Martha is a newly qualified graduate at the beginning of her teaching career and this is her first time teaching in a multigrade class. Throughout most of the case study schools, the Junior Infant children needed to work on activities (individually, in a pair or in a group) which they could carry out independently while the teacher was with another class group. Such activities needed to be sustained by individuals or groups so that they would not interrupt the teacher at work with other groups. These activities were usually closed, repetitive and often lacked challenge and focus. At times the children completed the activities quickly or lacked interest in them and tired of them. The children in Scoil Rathóg complained about their workbooks. Megan said 'We have too much workbooks.' And Fionn her classmate added 'I don't like workbooks but I like school' He explained further 'I don't like the work cos it's

too hard. And cos it's too boring.' Some classroom activities were very tightly prescribed and the children constantly checked that what they are doing was 'right'.

The amount of time that teachers gave to monitoring independent work also varied considerably. Some teachers took time to observe Junior Infant children in action and to have conversations with them about their activities. Other teachers moved quickly from group to group and if Junior Infant children appeared to be engaged in work, they took the opportunity to move quickly to the next class group. In this way teachers focussed exclusively on the class group being taught and were not available to respond to calls for help. Danny in Scoil Rathóg complained that it was often difficult to gain the attention of his teacher if he needed her help. 'I put up my hand and wait for her. I have to wait a lot for her. Sometimes my hand gets really tired and I have to put the other hand on it to stop it from slipping down. It still hurts when I have to keep it up though'. Teachers in other case schools were more flexible and did respond to children but focussed less on the class grouping they taught.

Although the importance of child-initiated activity was acknowledged by the teachers in the study, there was almost no evidence of such activity during the observation period. Apart from short and infrequent free play periods at the beginning of the school day, children were not encouraged to make their own decisions about what they would do. Neither were children afforded much opportunity to choose their own resources or equipment or to follow processes or outcomes of their own interest. In the majority of the classrooms, the balance of activities was weighted largely in favour of teacher-directed activities.

Key Theme Two: Participation

In this section one of the main conceptual dimensions of Lave and Wenger's (1991) situated theory of learning approach, namely 'legitimate peripheral participation' is addressed and how this concept helps to formulate a situated and relational account of learning is explored. The evidence from the eight case studies indicated significant differences in the forms and extent of participation available to Junior Infant pupils across the schools. Treating learning as legitimate peripheral participation means that learning is seen as 'itself an evolving form of membership' (Lave and Wenger, 1991, p. 53). In this section individual children are seen to develop identities of competence as they change in how they participate through the multiple social relations and roles they experience. The focus is on their participatory

opportunities in prevalent classroom practices and how their learning paths unfold and how their identities were constructed through these practices. The schools are subject to varying influences related to size of the class, availability of in-class support, degree of variation in pupil ability and age. The teachers also display different ranges of classroom experience, pedagogical styles, approaches to classroom organisation and the development of collaborative cultures in the classroom. Hence, children encountered different modes of participation.

Direct instruction where the teacher sets out deliberately to impart knowledge, understandings, skills and strategies to learners by methods such as explanation, demonstration, modelling, questioning, providing feedback and reviewing is used across the Curriculum in multigrade classes. It is a particularly complex strategy for teachers of multigrade classes but when conducted well, it ensures that pupils can participate successfully in responding, questioning and engaging in learning activities. In the next extract the children in Drumleathan NS are gathered in the infant part of the room for their Religion lesson. The teacher is reviewing the parable of the Lost Sheep with the whole class.

**M: Do you know what a shepherd is? People in Junior Infants?*
The older children attempt to respond.
M: Sssh, this is just for juniors. What do you think Linda?
L: Someone who searches for animals.
Ivan (2nd): The angels came to shepherds at Christmas and told them about the baby.
Tadhg (1st): Yeah, they went up to Bethlehem and gave the baby a new lamb.
M: Yes, in Jesus' time being a shepherd was an important job.
Ivan (2nd): Their job was to find grass.
M: Not like at home with your sheep. You can put them on a hill and leave them there because there is plenty of grass. Sometimes Jesus would pick something people knew lots about and tell a story with a lesson in it using that thing. Did the shepherd walk ahead of the sheep or behind them?
I: Oh behind them because if a wolf came he would mind them.
M: How would the shepherd know if one of them was missing?
L: Just look at them.
M: How many would be left?
T: Ninety nine.
M: So he had to leave the ninety nine. What places might he look for the lost sheep?
T: Go back to the last place where he was.
M: The sheep might be stuck in a ditch like your rabbit Kate.
Kate nodded.
*(M=teacher)

This example sets out the strategies used by the teacher to enable children to use knowledge gained in a previous lesson. As evidenced in the above extract Maureen adopts a balanced approach to this lesson promoting equity in educational outcomes for children of varying ages because they ensure access and participation in activities and provide opportunities for children to learn in their own unique ways. Several of the children contribute to the discussion although much of the questioning is initiated by the teacher. The teacher's feedback expands on the children's answers and she also uses her own personal knowledge of the children's backgrounds to support their concept development. The affirming nature of the teacher's feedback is supportive and legitimises the children's contributions. Lave and Wenger (1991, p.37) propose that 'peripherality, when it is enabled, suggests an opening, a way of gaining access to sources for understanding through involvement'. Maureen fostered a range of participatory positions for the children, encouraging legitimate peripheral participation contributed to more positive learner identities. In turn, this creates a positive atmosphere promoting the participation of all pupils. However, in interpreting the data it may be concluded that the pupils were positioned as responsible for producing the right answers, although the legitimacy of the knowledge was clearly determined by the teacher.

To communicate effectively with the whole class the teacher also accommodates the differing attention spans of the pupils in the classroom. To increase the participation of the younger children the teacher reserves questions just for Junior Infants and includes their experiences in her comments. Despite these efforts the teacher notes the wavering attention of Sheila, a Junior Infant. However, she minimises the significance of the difference by changing strategy to maintain attention.

1st: The shepherd is like God and we are like the sheep.
T: How could we be like the lost sheep?
1st: Go out of God's group.
T: Maybe this is too hard for Junior Infants, is it? Let's try the song. What two noises do sheep make?
Children: Maa and baa
T: That's right. Now listen to them in the Shepherd's Song on the CD.

The following vignette illustrates how Junior Infants participate in a class discussion on snowdrops in Scoil Eirne. At the beginning of the discussion it is proposed that the snowdrop grows from a seed. Darren one of the Junior Infants adds

in his experience of working with seeds and his contribution is acknowledged positively by the teacher. Darren then turns to listen to the older children who provide the correct facts.

A photo of a snowdrop is on the interactive whiteboard.
T: Where do they grow?
Ryan (2nd): In fields and in gardens.
T: How do they grow?
Heather (2nd): They need water and sunlight and they grow from a seed.
T: Do they grow from a seed?
Darren (J.I.): My mum and me had seeds.
T: Did your mum help you to plant some seeds?
D: Yes.
T: Fantastic. So, snowdrops don't grow from seeds, what do they grow from?
Kieran (S.I): Bulbs.
T: Kieran, you said it. What's a bulb?
R: It's kind of like an onion. We planted daffodil bulbs in Autumn.
T: It's the same with snowdrops; they come out in this weather.
H: Wouldn't it be hard to see them in the snow?
T: Yes and they are quite small too.

Learner identities are linked not only to the kind of teaching that Junior Infant pupils experience in terms of content but are also influenced by their relationships with other adults in their classrooms. The presence of Special Needs Assistants (SNA) can serve to provide a positive contribution to the child's learning (Logan, 2006). Gina, one of the parents in Ballyglen NS pointed this out and noted how useful SNAs were in the multigrade class

> *What I found is they all have assistants. I didn't have that going to school. That's what I find great, that all the teachers have assistants like. You know when I was going to school like it was one teacher for the whole room you know.* (Gina: Parent of Noah)

However, other data indicated that Junior Infants experience of how the SNA facilitates participation varied widely and some Junior Infant pupils experienced marginalised rather than participative identities as a result of interaction with the SNA.

In Scoil Eirne the children are drawing pictures of snowdrops and the SNA Fidelma plays a key role in developing Clodagh's experiences of participating in this activity. At first Clodagh hesitates as she sees all the other children engaging in the task quickly and easily. The task is the same for all children but it may seem easier for the older children who will obviously be more skilled.

T: What do you need to paint snowdrops?
Fidelma, the SNA is repeating these questions with the Junior Infants and getting them to answer. She helps Clodagh with painting.
Cl: I'm not good at painting.
F: I think your painting is really nice.
Cl: I don't really want to do snowdrops. I don't like snowdrops.
F: That's so pretty. You made a beautiful creamy colour.
Cl: It's not a snowdrop, it's a daisy.
F: Daisies don't come out in Spring.
Cl: Well, I'll make a daffodil.
F: I didn't know you could do that.
Cl: Teacher, I made a daffodil.
T: Maith an cailin, good girl.

The pedagogic practice enacted by the SNA in this vignette has significant part to play in developing a participatory identity for Clodagh. Fidelma focuses on working within Clodagh's zone of proximal development. In doing so she individualizes teaching in terms of scaffolding and enables recognition not only of the status of Clodagh's understanding of the topic of snowdrops and consequent matching of tasks and teaching but also helps to develop an appreciation of Clodagh's individual expertise in relation to her drawing (Kaloaja, 2006; Korpinen, 1996; Vulliamy *et al.* 1997).

In contrast to this experience, Ann's (Kildubh NS) approach to classroom management is centred around a set of rules and regulations which set limits to the nature of body behaviour and are based around disciplining the body to become still (Foucault, 1979). Most of the disciplinary strategies used by Ann are focussed on achieving 'quietness' as a certain kind of docility in order to garner the attention of the children and maintain their concentration. For example, when Ann returns having left the room for a few moments she asks Claire 'How are the Senior Infants doing?' positioning her as if she were a guard. The SNA replies 'Very well. I can say they are all working very hard.' The teacher refers to the SNA for back-up. 'Oh dear Claire, it's an awful pity that some children don't have their pencil cases out.' Then Claire responded 'That's such a pity.' Ann also involved Claire in implementing spatial ordering strategies in disciplining young unruly bodies. For example, if Edward, a child with special educational needs gets too loud, the teacher asks the SNA for him to be removed Logan's (2006) research suggests that supervision tasks such as outlined above may act as a barrier to the inclusion of children with Special educational needs in classroom activities.

Lave and Wenger (1991) acknowledge that communities of practice are social structures involving relationships of power and acknowledge that the way power is utilized can make legitimate peripheral participation either an 'empowering' or a 'disempowering' experience. Children in multigrade classes often have independent working time away from the gaze of the teacher and other adults in the classroom as they are set tasks to complete while the teacher is working with other groups in the class. One of the most common tasks is for the children to 'colour in' their worksheet or their workbook page. The following extracts contrast two episodes of colouring, one where children are empowered by their independence and one where pupils work and effort is criticised resulting in emotional upset for a particular pupil.

The children in the Junior Infant class in Scoil Rathóg sit together to do an art activity. Three of the girls Alison, Megan and Caoimhe are very assertive characters who hold strong opinions on matters. The fourth girl, Jessica is quietly independent and during their considerable time alone some very interesting conversations emerge. Here the children are doing an art activity and they have a conversation about sharing colours.

> *M: Caoimhe, will you share with me?*
> *C: No.*
> *Jessica is watchful. She is very particular about her work and will wait until she gets just the right colour. She does not become involved in the argument.*
> *T: Children, are you working?*
> *Children: We don't have brown.*
> *T: Well make something that looks like brown.*
> *The children use some paint pots putting in red and purple.*
> *A: No sharing pots.*
> *The children ignore Alison and some share the brown paint made by others.*
> *Hugh (JI): There's no purple in mine.*
> *C: Maybe we could put one or two pots there and everybody could reach them.*
> *M: No, let's have one pot for the boys and one for the girls.*
> *Children: I can't reach, I can't reach.*
> *C: Everyone stick with my idea. Put them in the middle.*
> *H: I have a headache.*

During this activity the children have time to explore ideas independently to make sense of their own world. It is believed that young children in multigrade classes become more independent and competent learners as a consequence of their having input and choice over their learning and are consequently able to think and act in socially responsible ways (Pratt, 1986; Gayfer, 1991).

> *Jessica waits patiently for her colour while this discussion goes on. When it is over she calmly reaches for the paint and continues with her work.*

Megan: Jessica, remember when you were in my house we played with the skeleton.
Jessica: Yes and we had an egg hunt and I got most of the eggs.

This final section of the vignette illustrates the power relations young children enact and undergo when they are allowed to engage in activities free from adult supervision for long periods. There is a power struggle between three of the girls. Megan wishes to make an ally of Jessica to strengthen her own position and so speaks of a time they shared at Megan's house.

In the next vignette the teacher mis-times an intervention which serves to disempower one of the young pupils. The Junior and Senior infants are doing an Irish activity where there are a number of words on a page and the teacher is asking children to point to the correct word as she says it. The teacher helps Hugh to point to the words and he is repeating her words whispering as he does so. When they have finished the Junior Infants must colour the page. While the teacher continues to work with the Senior Infants, Hugh is at first meticulous about the work, choosing the colours carefully and making sure each small picture is completed. After approximately ten minutes colouring he is beginning to tire and has his head in his hands. Hugh moves on to the next page and begins to colour the pictures really quickly. The teacher comes to the group to check on the work.

T: That is scribbling. Why are you doing it all pink?
Hugh mutters something inaudible.
T: You meant to colour it peach? What kind of colouring is that? I want you to tell me do we colour it all the same, do we? I think you could do much better than that.
Afterwards Hugh is very contrite and his eyes fill up with tears. The other children in the group see he is upset and look at him.
H: Stop staring at me.
M: I'm not staring at you.
H: Staring at people is naughty.
M: Teacher, Hugh is crying.
T: Don't worry about it Hugh.
Hugh dries his eyes and recovers himself.

As evidenced above, the teacher is with the Senior Infants and did not see that Hugh spent a good deal of time colouring meticulously. When she returned she made an instant judgement about what Hugh is doing and her quick comments had the effect of positioning Hugh as not performing. It is an unfair assessment made in haste and Hugh becomes upset. This vignette is an example of how the multifaceted

interactional environment of the multigrade class influences the pedagogical relationship between the teacher and the pupil. Because the teacher is pursuing multiple simultaneous activities she becomes harried and the negative interaction that takes place between Hugh and the teacher influences the quality of their pedagogical relationship. Hugh is upset and begins to cry. Hugh feels marginalised evidenced in his 'Stop staring at me' remark and this affects his participation, perhaps impacting negatively on his identity as a learner.

The movement towards 'full participation' in the view of Lave and Wenger (1991) depends on the diverse relationships of members of the community, so that a newcomer can be a partial participant. Factors that lead to full participation include the degree of access allowed. The next set of data extracts are chosen to explore the varying degrees of access allowed to the Junior Infants. Often with hands-on practical activities, the younger children watched the older children demonstrate. For example at Kildubh NS there was a very prominent vegetable garden which the children indicated was a very important place in their school. When asked about it, Niamh and Evan stated they had watched while the planting took place.

> *N: We don't know who planted the strawberries. Strawberries were on the smaller one, strawberries on the smaller one. We came down and watched Mr Murphy and all the classes helped Mr Murphy. And we don't know which class.*
> *E: We planted rhubarb alright, but we didn't see it grow. I don't know if it growed or not. They took it out again.*

There is a strong emphasis on environmental education in this school. They have been working towards achieving a special 'Green Flag' award for this work. There is a collaborative process involved but the younger children are not allowed to become members of the community or to be involved at any significant level.

Furthermore, the children often report the playground as a site where participation is contested. The playground areas in Kildubh NS are clearly segregated and the children have a special area to play in. They call it their 'red patch'. However, they clearly did not believe they were full participants here. These comments by the Junior Infant pupils, Colm, Evan and Niamh illustrate they believed they faced a challenge in negotiating competence, identities and power relations which was necessary for them to participate and be recognized as legitimate and competent members of the school playground community.

E: We play with first class cos they nearly make up all the games.
C: Because the big children only can play with the baskets. They can throw the ball up. We are not allowed. We are not allowed to go in playtime

The younger children are not allowed to go into the basketball area and clearly would not consider moving into this area. Colm also attempts to shape his own participation by exercising his personal agency and actively negotiating his positionality

C: I was going to make up a game but nobody wants to play it. Nobody wanted to play.
N: Evan was going to play.
C: He was playing but we only had two people

When Colm found himself in a marginal position, he actively resisted. He initiated his own game in an attempt to change the power dynamics. I did occasionally observe him playing alone on the playground so it is likely that his solo attempts did not change the power dynamics in any obvious way.

In summary, Lave and Wenger's (1991) theory seems to have much to offer because of its emphasis on the integral relationship among the individual child, activity and the world in which each is conceptualised as constitutive of the others. The link they suggest between learning and formation of identity also helps widen perspectives on learning. However, in order to provide a more complete picture of participation and identity formation, Wenger's (1998) notion of identity formation as a cumulative process needs to be explored. Wenger (1998) suggests a definition of identity as 'a layering of events of participation and reification by which our experience and its social interpretation inform each other' (Wenger 1998, p. 151). Identity was built up over time as the Junior Infants participated or not in their communities of practice. The nature of the participation and the positioning of children were interpreted in terms of the values, assumptions and rules of engagement. Therefore by moving now to a critical examination of the power relations that are inherent between older and younger children in multigrade communities, I can begin to address how different Junior Infant pupils may come to be assigned particular identities.

The findings from this theme give insight into differences in the forms and extent of Junior Infants' participation in the activities of multigrade classrooms and explore how these forms of membership evolve and develop throughout their first year at school. The findings in the cross case analysis show that Junior Infants learn

rules for learning and behaving from the teachers and the other adults in their settings. The Junior Infants as new members of their communities of practice were allowed to take part in minor aspects of central activities and encounter legitimate peripheral participation as either empowering or disempowering experiences.

Some adults demonstrated how it was possible to enable peripherality by emphasising and praising certain behaviours and ignoring and discouraging others. In terms of promoting equity in participation these adults legitimised the contributions of Junior Infants, used their own knowledge of the children's lives outside of school to help them make real connections with learning within the classroom and helped them to gain access to developing joint understandings with their peers and with older children. At other times Junior Infants struggled to negotiate participation in important activities of the settings. Events such as playing on the 'red patch' of the yard in Kildubh NS or Hugh's upset when he fails to complete the colouring activity in Scoil Rathóg demonstrate that younger children could be excluded and marginalised and were not always recognized as legitimate or competent members of their communities.

Key Theme Three: Working with older children

There is a need to accommodate a positioning perspective as well as a sociocultural perspective on identity formation in an account of the socially-constructed and culturally-figured nature of language, tools and interactions in learning contexts. The work of Holland *et al.,* (1998) integrates both perspectives within a larger sociocultural theoretical framework on identity formation. This particular aspect of identity namely 'positional identity' is considered in this section. The three aspects of working with older children which are explored in this section are general classroom interaction, interaction with older siblings and working in small mixed age groups. Consideration is given to each of these aspects in relation to the evolving identity and competence of the Junior Infants in relation to the older children.

In all schools, the children sat together at tables in separate class groups for literacy and numeracy activities. Sometimes they came together for whole class lessons. Notably, in Drumleathan NS all the children gathered around the Junior Infant tables. While this gave a status to the location within the classroom of the Junior Infants, there was not much further integration among pupils of different ages.

The teachers in Abbeytrasna NS and Scoil Eirne strongly emphasised social development and the children were often placed in mixed age groups according to the teacher's criteria. Teachers made a point of changing the composition of mixed age groups to enable young children to further extend their friendships with older children and to learn to work with a variety of children. In addition, the regularity of working together as part of their everyday routine allowed the children to develop a familiarity with one another.

At Scoil Eirne shows how the development of a deeper relationship between individual younger and older children is enabled. The three adults who work in this class strongly encourage the older children to look out for and nurture the Junior Infants. Clodagh a child with special educational needs is particularly supported by Ryan during their 'Brain Gym' session. 'Brain Gym' is a set routine of exercises with which the class seem very familiar and the session entails a mixture of balance exercises, some yoga and exercises that encourage children to cross the mid-line. As some of the movements are carried out in mixed age pairs, the children choose their partners and position themselves around the room (See Appendix 13 for the complete vignette).

The presence of small working groups of mixed age pupils play a part in the learning of Junior Infants in multigrade classrooms and it is important to understand how meanings and knowledge are constructed between pupils while working on various learning activities. As in Abbeytrasna NS, the teacher in Scoil Eirne gives priority to children's personal and interpersonal development, the nurturing of a climate of tolerance and mutual respect across the age groups in the class. This is particularly evident when children work as mixed-age pairs or small groups for activities. Mixed age grouping is so embedded within this class that the children move with ease into groups with an absence of grumbling or complaining that sometimes marks interactions observed in other schools. Because children choose who they wish to work with and this choice is honoured, there is greater cohesion and co-operation in the small groups. There are several times in this school where the older children quietly intervene to help the younger children. For example, Darren (Junior Infants) is distributing straws to all children who are drinking milk. Clodagh (Junior Infant) is demanding a certain colour. Heather (Second Class) reminds Clodagh to ask 'nicely' if she wants a certain colour. Later in the day after an art lesson Heather helps Darren

tidy up and wash his hands without being asked. The SNA Fidelma notes this saying 'She has you spoilt rotten!'

This approach is in contrast to that of the teacher in Kildubh NS where mixed age groups were also organised from time to time. Ann believes that the multigrade class is 'a great setting to facilitate increased social interaction including having older children model behaviour to younger children in mixed-age groups.' The teacher also states that the 'make-up of the groups should be carefully planned out to ensure success'. On one occasion the teacher assigns the children to mixed-age groups for an art activity. This is an elaborate process and takes quite a while. Eventually, the older child in each group gets a plastic bag and the groups are instructed to gather natural material like twigs, moss and leaves to decorate their clay nests. While they are outside the younger children seemed to be tagging along after the older ones not exactly sure what they should be gathering. Because the younger children are allowed no choice with whom to work and are not encouraged to integrate, the Junior Infants often remain on the periphery. When they brought the materials back the children sit side by side still in their mixed-age groups. It is the older children who wish to show the teacher what has been collected and the younger children did not seem to be responsible for the materials. Even though the mixed age groups sat side by side at the classroom tables, there was no sense of intimacy and the availability of opportunity for children to talk with each other about their work was markedly absent from this activity. Such an incident points to the teacher's inability to exploit the potential learning in this situation which was a criticism levelled against teachers of multigrade classes in previous research (Galton & Patrick, 1990; Mason and Burns, 1996). The need for young children to talk through their experiences is a means of making sense of them and when the children line up to wash their hands, Elma; a Junior Infant begins to chat to a girl in first class about the activity. As soon as teacher sees the pair of children she stops the chat saying: 'Aoibhinn there is no need to be chatting to Elma.' Elma is visibly deflated and the girls continue in line for a further few moments. This is further evidence that when social interactions between younger and older children are not encouraged, there is a lost opportunity for the children to develop long-term learning relationships (Hargreaves *et al.,* 1996).

The next section of the cross case analysis considers how older children help younger children ascertain what behaviour is expected of them in school. In a multigrade class the older child will often work to interpret the teacher's commands

for the younger children. Similar to the approach taken in Abbeytrasna NS, both the teachers in Drumleathan NS and Scoil Eirne positioned the older children as positive role models for the younger children. The older children's behaviour was often pointed out as something the younger children should attempt to emulate. When this was repeated often the older children took on the role of independently watching the younger children and urging them to behave well.

One such example of this took place in Scoil Eirne when the children were planting potatoes in the school vegetable patch. Darren finds a worm and throws him up into the air. Ian from first class shows him where it lands. However, Darren is about to do it again when Ian urges him not to. In order to distract him Ian gets a seed potato and Darren follows him. Then all the children stand along one side of the bed and their photo is taken. Each child plants their seed potato and one says 'Tá mé críochnaithe.' Darren repeats this. Some children have dirty hands. Darren shows his hands and calls to Ryan in Second Class 'You show your hands and I will show mine'.

In Drumleathan NS in particular, the older children often remembered poems and songs they had learned in Junior Infants. The teacher emphasised how wonderful the older children were for remembering and this gave new importance to the material being learned by Junior Infants. The older children are given an opportunity to demonstrate what is to be learned by the younger children. The older children recite the poem with such energy and enthusiasm that the younger children are eager to learn it

> *T: I was thinking about Christmas poems and we haven't done any Irish poems. There is one we can learn about, it's Christmas stockings. What is stocking in Irish?*
> *A group of older children begin to recite poem. They have remembered it*
> *T: People in Junior Infants have never heard this one, hold on!*

The success of this lesson demonstrates clearly the potential of the multigrade class for cross-grade grouping (Gutierrez and Slavin, 1992; Veenman, 1995). Maureen the teacher accommodates the needs of different grades in this short vignette. She teaches the words of the poem to the Junior Infants by drawing pictures on the blackboard. Then she asks Second Class to say the poem slowly and this is followed by First Class reciting the poem, allowing the older children to scaffold learning of their younger counterparts. Finally, the younger children perform the poem alone.

Marion (1st): Now Senior Infants say it.
T: Now all the Infants will say it together. Then Junior Infants don't have to say it on their own. That wouldn't be fair. You didn't have to say it on your own when you were in Junior Infants.

However, in Ballyglen NS the teacher repeatedly positioned the older children in a negative way. She was often 'disappointed' with the behaviour of children in first class especially during transition times between lessons. During classroom observations the older children were identified as noisy and slow to finish their tasks. In contrast to this the Junior Infant group in this classroom were often characterized as the 'best class'. The younger children gained the teacher's approval by getting ready for the next lesson quickly, sitting still and upright on their chairs and putting their fingers on their lips to indicate they were being silent.

The interaction between siblings in the multigrade class was also interesting in several ways. In general, older children had little interaction with their younger siblings within the classroom and older children had sometimes appeared embarrassed by the behaviour of their younger siblings. For example, Eve in Gortglas NS was very much more outgoing than her brother Jason in second class. One day she forgot her money for a charity collection and she immediately went to him. He handed over his money quickly as if to get rid of her.

Some of the older children ignored their younger brothers and sisters quite to the distress of their younger siblings. Kate in Drumleathan NS noted that her older brother in Second Class wouldn't play with her in school and was quite puzzled by this behaviour because he played with her at home all the time. Kate's mother also pointed out that her daughter relied on her brother for reassurance while at school. 'She gets very excited because she knows Ian is in the room and if Ian has had a day off sick, she's not that keen on coming because he's not going to be here. So I think for her being a Junior Infant, the security of having an older brother here has meant a lot.' In other cases the younger siblings accepted the change from home to school and were largely unaffected when they were ignored by their older brothers and sisters.

Some siblings acted as protectors of their younger brothers and sisters. In Drumleathan NS a situation arose where Sheila needed to interact with an older child.

Sheila has a pencil case which she wishes to give to a child in first class. The teacher is busy and does not notice her walking towards first class. The older child does not understand what is happening but neither can Sheila explain. She returns to her seat with the pencil case. Then Sheila goes to her sister in first class and her sister gives the pencil case to the child in Senior Infants.

She found it difficult to gain the attention of this child and became intimidated. As her older sister in Senior Infants observed her she went to help her and eased her discomfort.

Using the framework of positional identities helps us appreciate how Junior Infants navigate through and develop understandings of themselves in the multigrade context. Within each of the case study schools Junior Infants experienced various mixed age contexts including whole class, small mixed age groups and interactions with their older siblings in the classroom. In whole class lessons the Junior Infants were permitted access to many classroom interactions and resources. The Brain Gym, Potato Planting and Song Singing activities were characterised by pedagogy and interactions in which experts and novices had the opportunity to negotiate meaning together. The small group art activity afforded Junior Infants less opportunity for engagement and they are not permitted to take an active role. Similarly, the evidence on sibling interactions suggest that both Kate and Sheila experience varied levels of support from their older siblings within the classroom.

The findings presented in this theme show that while it was possible to develop a community of learners in a multigrade primary classroom, to do so necessitated an ongoing and consistent commitment on the part of teachers to promoting a culture of mixed age learning in their classrooms. The most critical enabling classroom practices which teachers engaged included: establishing mixed age activities as a regular way of working across the curriculum and structuring the physical environment of the classroom so that Junior Infants sat with or at least near their older classmates allowing them to have regular informal access to older children. Other teacher approaches which emerged as promoting successful mixed age learning experiences related to teachers positioning of older children as positive role models for younger children and strongly encouraging them to look out for and help younger children when necessary.

The findings also demonstrated that when a collaborative culture was sanctioned in the classroom, older children demonstrated strong interpersonal skills and an enhanced capacity to engage in shared mixed-age interactions. They facilitated younger children's participation in pair and small group activities by allowing them to take turns, being sensitive to their ideas and building on these contributions in the co-constructive learning activities.

Key Theme Four: Community of practice

In this section the focus is on exploring how the theoretical concept of 'community of practice' applies across the eight case study schools. Lave and Wenger (1991) proposed the model of 'apprenticeship' in which there is active participation with others in culturally organized activity that has as part of its purpose the development of mature participation in the activity by less experienced people. The newcomers in this research study are Junior Infants in their first year of primary school, tentatively exploring ways to participate and to belong. The children watch, imitate, construct meaning and learn from more competent classmates, growing in confidence as they become more comfortable with school life.

The Junior Infant children learn by observing and listening-in on the activities of the older children. Learning through 'intent participation' (Rogoff, 2003) where the children are keenly observing and listening, in anticipation of participation, is especially valued by teachers in multigrade settings. Parents in general however, seem less sure of the benefits of intent participation. In the extract below Tricia, a parent in Cashelbeag NS, offers a positive interpretation:

> *A: Yeah they pick up from the older children. I presume they listen in, even though the teacher is dealing with Junior, or Senior Infants that the Juniors are meant to be doing work, but they are probably still listening to what's going on over there kind of thing, you know that they do pick up on other things I imagine.*
>
> *I: Would he have said things at home that the older classes would be doing?*
>
> *A:Yeah, he would yeah. Like sums or even simple things Irish words or something. You know that he would have heard they were saying that. He wouldn't fully have the whole thing of it, but definitely heard some of it there. I mean surely it's to the benefit of them if they hear something else, even if they are meant to be doing their own work, you know what I mean*

It must be acknowledged that this parent is very involved with this school. She is a member of the Board of Management and also very active by her own admission in the Parents' Association. As a result maybe it is her natural instinct to defend the school and to be optimistic about its successes.

In contrast, Denise and Cara are both parents in Scoil Rathóg, were somewhat reticent about confirming intent participation as a valid means of learning. In this

extract they explain what they think about their children listening in and learning incidentally from the older children.

I: What about in terms of their learning then? Would you see an advantage in terms of your child being with an older class group?

D: Probably. Like there is and there isn't like. I'd say because like Danny... he'd come home and say 'Oh First class were doing blah blah blah' so they see what's going on but that he might not be doing his own work, he might just be listening to whatever's going on there. I suppose it would depend on the child as well if they needed a lot of direction like you know, people keep saying do this and you know what I mean like, then it probably would but I don't know about Danny in this school, I don't know what he's like as such and if he needs a lot of reminding to do stuff.

These parents point out that they did not attend multigrade schools themselves and so may be unsure about how a multigrade class functions. However, they are satisfied their children are progressing well as is evidenced in the final comment.

C: It's probably a hard question for us to answer. Ideally you needed someone who's had a child in a normal school and then in a multi-grade so you could... they seem to be learning tons and they seem to know what they are supposed to and they are nearly finished all their books now and looking for the homework now you are just trying to find a page that hasn't been covered.

Social participation is a process of belonging to a community by engaging in its valued practices. In the practice of apprenticeship in Drumleathan NS, increased participation in the recitation of rhymes and songs links directly to the status of the Junior Infants in the classroom. The process of children learning through observation of everyday activities is akin to the organisation of learning in apprenticeships and Junior Infants as novices learn 'by osmosis', picking up the rhymes and poems by observing the other children and the teacher and learning through their own involvement. Often only a small amount of time and attention was actually devoted to instruction of the rhyme *per se* but the younger children picked them up quite easily. In intent participation, the Junior Infants attend to instructive events in the classroom even though they are not necessarily designed for their instruction.

Rogoff (1990) envisions learning as including participation of a novice learner in a jointly constructed activity in which an expert assists the novice by providing guidance, feedback and explanation allowing the novice to internalize cultural ways of performing an activity. In the context of examples of apprenticeship noted in the study, the Junior Infants had multiple partners, teachers, SNAs and in particular older

children who interacted with them in many different contexts such as the playground, the classroom, as a whole class or in a small group and so opportunities for 'multi-tiered scaffolding' (Cumming-Potvin, *et al*., 2003) could occur. Older children act as instructional models (Case study one: Reading together), sources of advice (Cross case study: Returning a pencil case) and as sounding boards for concerns and fears (Cross case: Who helps you in the playground?).

As already highlighted in this cross case analysis, the older children are sometimes positioned in a negative light by teachers and there were other times when having an older class to imitate may have militated against the participation of the younger children. For example, in Gortglas NS the children are requested to choose a favourite activity in school. As is the routine in this class, Ann the teacher asks the children in First Class before referring to the younger children. Each of the nineteen children has an opportunity. The older children choose various forms of play. The younger children repeat answers already given. At one point a child hesitates and Ann says she will come back to her. A few minutes later Elma in the Junior Infant class hesitates, Ann is just about to move on when Elma rushes in with an answer as she understands that she probably won't get another opportunity.

Whole class lessons on Physical Education (PE) were also features of life in many multigrade classrooms and evidence in this study suggests there is much variation in the quality of interaction and the community atmosphere which develops as a result of the activities undertaken. The varying pedagogical practices of teachers within whole class activities show younger pupils how to legitimately participate in the community. In addition, the community of practice theory underlines the degree to which teachers are not only helping pupils to learn but also to shape their identity in becoming particular types of people.

PE lessons offered the opportunity to develop teamwork, sharing and co-operation. Although all classrooms had their own unique balance of children of different ages, Gortglas NS had significantly more Junior Infants than any other group. During the lessons observed, Deirdre, the teacher is very much focussed on building the skills of the younger children so that they could participate more fully in games which followed. During the PE lesson the children work in small mixed-age groups of four or five pupils. In the relay teams, the older children demonstrated skills to the younger children and encouraged them with the task, cheering them when they had finished. The teacher encouraged and praised teamwork throughout using

comments such as ‘Well done. I like the way you are working as a team,’ to establish the community atmosphere. In addition, she frequently asked pupils to share their success with their team, ‘It’s not just *you* winning it’s your whole team.’ Deirdre associated the Junior Infants directly with the community of practice through reference to practices and tools of teamwork. The teacher’s narrative assumed mutual engagement and a joint enterprise and she made this explicit by connecting them to a history of participation.

This approach was very different to that of the teacher Bridget in Ballyglen NS where the PE lessons observed focussed more on a whole class ball game. Here, there was a marked imbalance in the pupils’ participation in the lesson. The soccer game was very important to the older children and in particular, the older boys in first class seemed to dominate and were keen to win. Although during the day of the lesson the Junior Infants have expressed how they really looked forward to PE, the domination of the older boys gradually affected the participation of the younger children for whom the game began to lose attraction. At first the younger children began to get restless when the ball was not passed to them. Some started to feign injury and illness saying they had ‘sore legs’ or they were ‘feeling sick’. Gradually they began to withdraw from the activity. Their attitude is in total contrast to the older boys who appeared to be totally absorbed in the game and wanted to win.

In Kildubh NS, the freedom of pupil movement was completely curtailed by the teacher in the PE lesson and pupils are positioned into passive roles in highly controlled sessions. Exact instructions were issued by Ann, the teacher, on where to stand and how to move. The teacher often spent a long time demonstrating with the result that children were very anxious to begin the task themselves. There often appeared to be very little time for the children to practise the skill themselves.

The narrative created for the Junior Infants in Kildubh NS was quite different to that of Gortglas NS. Ann, the teacher in Kildubh NS created scripts which positioned Junior Infants as unskilled and inexperienced. She addressed the Junior Infants as ‘my little friends’ and she reinforced their outsider status by limiting which activities she made available to them. She suggested the children bounced lightly on the basketball in case they made a mistake and in this way encouraged the children to be hesitant. The teacher’s representation of Junior Infants as outsiders reinforced the distance between them and being active members of the PE lesson and in turn this

limited their sense of belonging as team members and the possibilities for identification with the community of practice.

Evident across the case study schools was that within multigrade setting several and varied opportunities arose for apprenticeship to be developed. In particular, the PE lesson emerged as a site where children engaged in learning as apprentices. The findings indicate that when teachers retained their one-sided perspective of learning as being a solo enterprise directed by teacher the development of community of practice was constrained. Fostering communities of practice during PE required the development of rituals and values which authorised shared activity. Thus, Junior Infants learned how to become active members of their communities of practice by observing and listening in to the activities of the older children and gradually taking a fuller part in the activities of the classroom.

5.4 Conclusion

Table 5.4 Summary of Findings from Case Studies

Pedagogical Interactions
Essential importance of the role of teacher in promoting activity-based, child-centred learning approaches for younger children Maintaining attention on the needs of younger children and how they learn Personal relationships between teachers and pupils evolve over period together enhancing pedagogical interactions Provision of resources and materials suitable for use across grades is important Pedagogical interactions shaped by curricular positions adopted by teachers Predominance of teacher directed and 'text book led' pedagogy in many case settings
Participation
Importance of legitimising participation of Junior Infants Adopting a variety of grouping strategies (adult-child, small group and whole class) is needed to enhance opportunity for Junior Infant participation in learning activity. Limited and inconsistent nature of participation in mixed-age interactions in many case settings Factors which may limit participation include grades within classrooms being taught separately, seatwork for Junior Infants based on workbooks and worksheets
Working with Older Children
Shared meanings developing when Junior Infants and older children are connected in purposeful activities, listening and contributing in co-constructive manner Physical structure and organisation of the classroom where Junior Infants can interact informally with older children is needed Teachers encouraging a culture of older children looking out for younger children and supporting the learning of younger children Older children presented either positively or negatively as role models for behaviour

Community of Practice
In case schools where teachers value shared activity as a means of learning, community of practice is developed. Access to shared understandings limited when lack of opportunity to engage in mixed-age interactions Importance of adapting prescribed curriculum to reflect mixed-age cohort Given opportunities Junior Infants learn as apprentices in legitimate peripheral participation

Findings from the case studies and cross case analysis as summarised in Table 5.4 concur with what is already evident in the Literature Review on Multigrade Schools presented in Chapter 3. There were a variety of teaching strategies being practised by multigrade teachers to help them cope with a wide range of pupil age and abilities (Mason and Doepner, 1998; Mason and Burns, 1997; Veenman, 1995). More importantly, perhaps, it shows the level of contrast that exists between teachers and how varying factors associated with each setting can influence the approach that is eventually enacted in the setting.

In the cross case analysis, I consider the school world of the pupil participants and how identities come to be constructed in the context of a multigrade school setting. The vignettes provide insight into the social construction of participation of Junior Infants in the communities of practice which were their multigrade classrooms. Comparison of the data gathered across the eight case study schools highlights that within each community there are affordances and constraints of the cultural framework of the classrooms which 'legitimise' different forms of membership (Lave and Wenger, 1991) or limit full participation.

5.4 Part Three: Questionnaire Findings

This section presents the findings of the questionnaire survey sent to teachers of Junior Infants in multigrade classes. As discussed in the Methodology Chapter, the total response rate was 56% or 141 out of 250 questionnaires posted. The purpose of the questionnaire was to gather information about Junior Infant teachers' opinions, beliefs and self-reported pedagogy as it relates to teaching in multigrade settings. The research questions which pertain to the questionnaire survey are outlined below.

1. How are early childhood pedagogical practices enacted by teachers and interpreted by parents/caregivers of Junior Infant classes in multigrade schools?

2. What are the beliefs of teachers in the multigrade class of factors that constrain or support them in their efforts to implement early childhood pedagogy according to the sociocultural principles outlined in the Revised Primary School Curriculum (1999)?

Background data on the classes and practitioners is presented in Section One. Information on pedagogy as well as the time spent by teachers on the various teaching strategies is then presented in Section Two. In Section Three, an outline of the findings relating to how the Junior Infant children interact with their older classmates throughout the school day is presented, followed by an analysis of teachers' attitudes relating to the benefits associated with multigrade settings for Junior Infant children in Section Four. Finally, in Section Five, the findings relating to the challenges and difficulties faced by teachers of Junior Infants in multigrade classes are presented.

Section One: Background information

The vast majority of respondents to this survey, 97% (n=137) were female and the remaining small minority 3% (n=4) were male. Respondents were a relatively experienced group of practitioners. 44% (n=62) had over 10 years teaching experience while a further 22% (n=31) had 6 to 10 years experience with the remaining 34% (n=48) stating that they had 1 to 5 years experience in multigrade settings. Due to the size of multigrade schools a sizeable proportion, 30% (n=42) of the teachers surveyed were also principals of their schools.

When teachers were asked about the schools in which they taught, the most common type of multigrade classroom cited was one where there were four class groupings (62%, n=87) i.e. Junior Infants, Senior Infants, First and Second classes. This arrangement of classes is generally found in two teacher schools.

Overall individual class sizes ranged from 3 to 36 pupils with the mean number of pupils in a class being 16.89. The number of Junior Infants in the multigrade classes ranged from 0 to 20, a figure which reflects fluctuating school

enrolment in rural areas. The mean number of junior infants in the multigrade schools as a whole was found to be 5.5. There was a broad age range within multigrade settings with the mean age of the youngest child in the classes surveyed being 4.53 years and the mean age of the oldest child was 8.16 years.

Section Two: Pedagogy

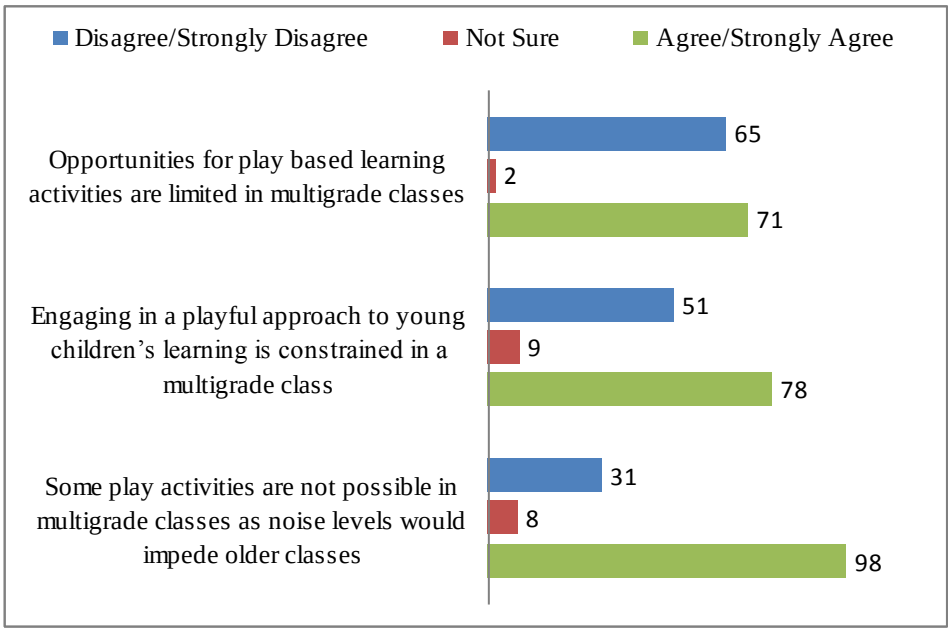
Play opportunities for Junior Infant children in multigrade classes

One of the well-accepted principles of early years pedagogy is well-planned play, 'as a key way in which young children learn' (QCA 1999, p. 10). However, providing for play continues to be highlighted as being one of the greatest challenges for teachers in linking their beliefs with the reality of the demands of the curriculum (Keating, 2000; Walsh, *et al*.; 2006; Moyles, 2010, Stephen, 2012, Wood, 2013). In exploring experiences of the pedagogy of play in multigrade classes, a series of items which were based on findings from both Chapter 2 and 3 were developed. This question contained 10 statements which the teachers were asked to score on a Likert five point scale from 'strongly disagree' to 'strongly agree' with a mid-point of 'not sure'. The first group of statements dealt with whether teachers believed that the opportunity for play-based learning was constrained in multigrade settings.

The first three statements were as follows:

- ***Item A****: Opportunities for play based learning activities are limited in multigrade classes*
- ***Item G****: Engaging in a playful approach to young children's learning is constrained in a multigrade class.*
- ***Item I:*** *Some activities are not possible in multigrade classes as the noise levels would impede older classes*

Figure 5.1: Play opportunities for Junior Infant pupils in multigrade classes



Some differences were found among teachers in the ways in which they saw the possibilities for implementation of play based learning activities. Whereas 47% (n=65) of respondents disagree or strongly disagree with Item A which stated that opportunities for play are limited in a multigrade class, almost the same number of respondents 52% (n=71) were in agreement with this statement. For Item G which stated that engaging in a playful approach to young children's learning is constrained in a multigrade class, there were slightly more teachers who were in agreement (57%, n=78). Some respondents reported that they found it difficult to find time for play due to timetable constraints. One respondent commented, 'there is a lack of time for free play, structured play and more junior infant based activities. Most activities geared to older children, tailored to be made suitable for younger children' while another wrote 'Play is constrained in the junior infant classes in a multigrade setting as pressure of the curriculum dictates less play for older classes, less play for everyone'. These comments appear to indicate that some respondents believe that intentional teaching of the curriculum as well as prioritising the needs of older children must have precedence over play. However, opinion was divided here too as 36% (n=51) teachers disagreed with this statement. One teacher commented that

'In my classroom JI and SI have at least 30 minutes play each morning. 1st and 2nd are doing their work during this time. The noise level is high but 1st and 2nd are used to it. I think no matter what activity they play noise level would be high anyway.'

The next item which stated that 'some play activities are not possible in multigrade classes as noise levels would impede older classes' garnered a less mixed response. 72% (n=98) of teachers were in agreement with the statement while only 23% (n=31) disagreed with it. Comments such as 'Having 2nd class children in the room limits the amount of time that can be devoted to play based learning activities as the 2nd class children need some formal reading writing time with a relatively quiet environment' lend further support to the finding that play for Junior Infants is shaped by contextual features which surround it. This finding concurs with previous research which consistently states that although teachers claim to believe there is a strong relationship between playing and learning, this relationship is not always realised in practice (Bennett *et al*., 1997).

Playing with older children

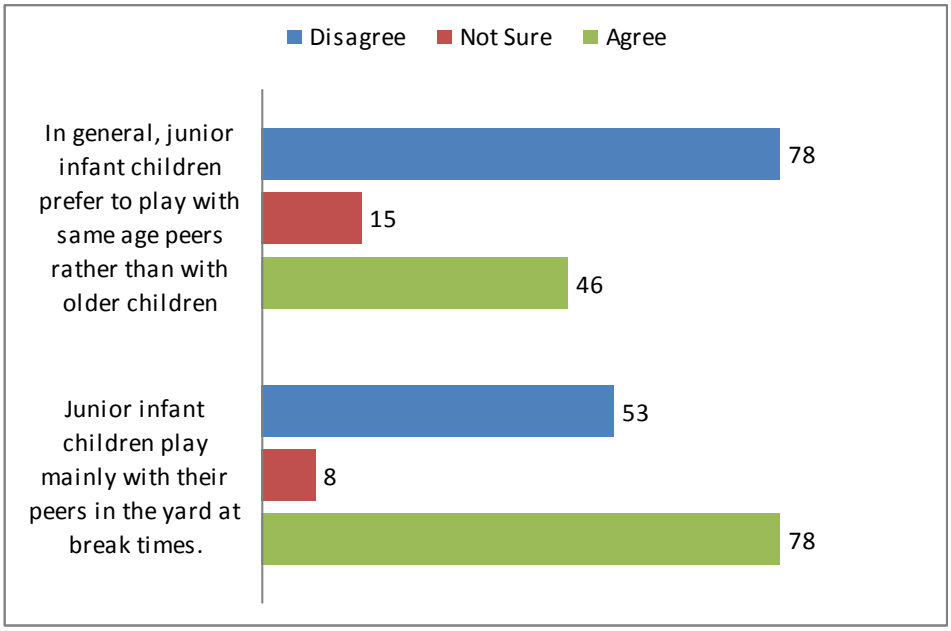
Sociocultural interpretations of the pedagogy of play highlight that learning through play is dependent on the range of choices that are available and permissible, the contexts in which the play occurs and the range of interactions with more or differently knowledgeable peers (Broadhead, 2004). As this study is framed within a sociocultural approach to pedagogy, evidence was sought on the range of interactions Junior Infants had with the children in their classes. Since children's play development is progressive and moves along paths of increasing social, physical and cognitive complexity (Wood, 2007), this may mean that Junior Infants who have the opportunity to play with older children may engage in more complex play situations (Goldman, 1981; Mounts and Roopnarine, 1987).

The next group of statements were designed to look at teachers' beliefs concerning Junior Infants' experience of play with older children in their multigrade settings. There is likely to be a wide range of social competence in a multigrade class which may allow younger children to engage in more complex play situations (Goldman, 1981; Katz, 1995). The first statements were general in nature and looked at whether, in general, Junior Infants played with older children or with their peers.

- ***Item E:*** *In general, Junior Infant children prefer to play with same age peers rather than with older children*

- ***Item J:*** *Junior Infant children play mainly with their peers in yard at break times*

Figure 5.2: Junior Infants playing with peers or playing with older children

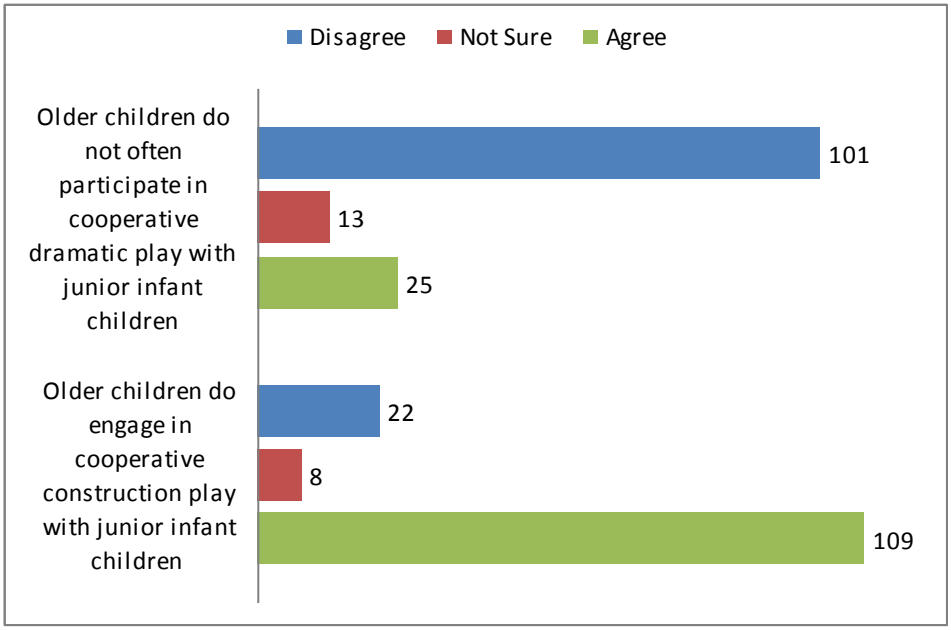


There was a very mixed response to these statements. 56% (n=78) of teachers disagreed with the statement that Junior Infant children played with their peers in the classroom and 38% (n=53) of respondents were not in agreement with the statement that Junior Infants play mainly with their peers on the yard. This evidence suggests that in almost half of multigrade settings surveyed, Junior Infants do not engage in the play activities of the older children concurring with French's (1984) findings that in mixed-age groups, younger children preferred the same age peers as friends while they regarded older children in the group as helpful and sympathetic leaders. However, 33% (n=46) respondents believed that Junior Infant pupils played mainly with their peers in the classroom while a higher proportion 56% (n=78) agreed that they played with their own classmates on the yard. The mixed pattern which emerges from these findings may be related to a number of influencing factors which impacted on the prevalence of mixed age interactions observed in case study schools. These factors included varied numbers of children in classes, the layout and size of the classroom, the layout, size and management of pupils on the yard and the attitudes of the teachers only some of whom encouraged mixed age play.

Following on from this, the next set of statements below dealt with the types of play (co-operative socio-dramatic play and co-operative constuction play) that Junior Infant children may have the opportunity to engage in with their older classmates

- ***Item C:*** *Older children do not often participate in co-operative socio-dramatic play with junior infant children*
- ***Item D:*** *Older children do engage in cooperative construction play with junior infant children*

Figure 5.3: Types of play Junior Infants engaged in with older children



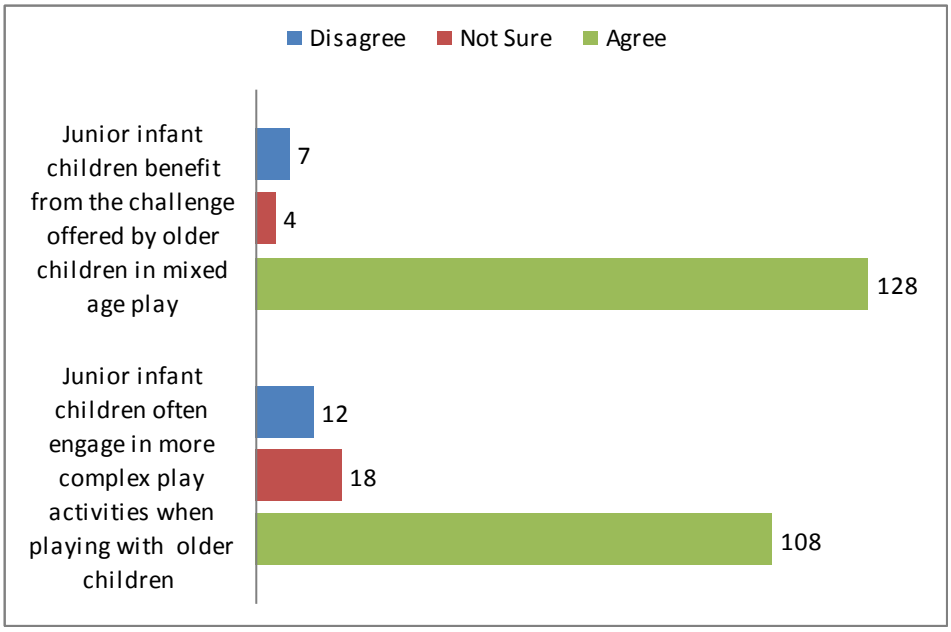
In Roopnarine *et al.*'s (1992) research, children of different ages engaged more frequently in construction play rather than socio-dramatic play. However, in my study there did not appear to be any significant difference in participation levels of Junior Infants in construction play as opposed to sociodramatic play. A majority of teachers disagreed that older children do not engage in co-operative socio-dramatic play 71% (n=99) while most teachers also believed that older children engage in co-operative construction activities with Junior Infants in the multigrade setting 78% (n=109). These findings concur with those of Katz *et al.* (1990) which found that in a mixed-age group, younger children are capable of participating and contributing to far more complex activities than they could initiate if they were by themselves. Once the older pupils set up the activity, the younger children can participate, even if they could not have initiated it. These are noteworthy findings given that, in socio-dramatic play in

particular; children as they get older become more skilled at sustaining episodes of imaginative play, creating rules, roles and play scenarios and controlling behaviour and actions (Vygotsky, 1978, Broadhead, 2004).

In relation to playing with older children, the final group of statements centre on the extent to which Junior Infants engage in more complex play when playing with older children and whether teachers believe they benefit from mixed-age play.

- ***Item B:*** *Junior Infant children benefit from the challenge offered by older children in mixed age play*
- ***Item F:*** *Junior Infant children often engage in more complex play activities when playing with older children*

Figure 5.4: Junior Infants engaging in play with older children: Complexity and challenge?



Both of these items had a significant level of acceptance. Item B which suggested Junior Infants benefit from the challenge offered by older children in mixed-age play received the highest level of acceptance (92%, n=128). Item F, a statement which suggested that Junior Infant children often engage in more complex play activities when they play with their older classmates, garnered a very high level of agreement among respondents (78%, n=108)

Section Three: Teaching Strategies

Table 5.5: Teaching strategies in multigrade classes

	Disagree/ Strongly Disagree	**Not sure**	**Agree/ Strongly Agree**
In multigrade classes it is problematic to use the range of teaching strategies required to meet the needs of junior infant children	36% n=51	9% n=12	55% n=78
Workbooks and worksheets are essential in teaching infants in multigrade classes	18% n=26	6% n=9	76% n=106
Whole class teacher-led activity is the most important aspect of teaching in multigrade classes	59% n=83	20% n=28	21% n=30
Small group teacher-led activity is the most essential strategy for guiding learning in multigrade classes	19% n=26	13% n=18	69% n=97
A predominance of teacher directed instruction is an inevitable consequence of teaching in a multigrade classes	35% n=49	13% n=18	52% n=72
Implementing activity based learning is the greatest challenge for teachers of junior infant classes in multigrade schools	32% n=46	9% n=12	59% n=83

Research evidence indicates that teachers required a range of teaching strategies at their disposal in order to meet the needs of different pupils, as well as to meet the needs of the same pupils in varying situations. Moyles *et al*., (2002) suggest that effective practitioners orchestrate a pedagogy by making interventions that are suitable to children's potential level of learning and to the concept or skill being 'taught'. A review of young children's experience in early childhood settings in Ireland, which was carried out by the OECD (2004) was highly critical of pedagogical practices in infant classes of primary schools. In short, what the OECD observed was a teacher-centred pedagogy as opposed to a child-centred pedagogy. They concluded that the impetus driving pedagogy was a prescribed curriculum with little account being taken of children's interests or concerns. The authors criticised the largely didactic approach favoured by teachers in junior infant classes where children were observed sitting quietly and where a prevalence of whole class teaching occurred.

In this questionnaire survey, teachers were asked about their attitudes to the teaching strategies they used in the multigrade class. The question contained 6 statements which practitioners were asked to rate on a five point Likert scale from 'strongly disagree' to 'strongly agree' with a mid point of 'not sure'. The first item was a general question and dealt with whether teachers considered it pedagogically challenging in a multigrade class to implement teaching strategies which particularly suited the Junior Infants. In this survey, over half of the teachers in a multigrade setting (55%, n=78) indicated that they considered it difficult to implement a range of teaching strategies designed to meet the needs of junior infant pupils.

The statement regarding the necessity of using workbooks and worksheets in multigrade classes generated high acceptance with 75% (n=106) agreeing that workbooks and worksheets are essential in teaching infants in multigrade schools. Respondents commented that they were used often 'to keep the junior infants busy'. These findings correlate with those of Dunphy's (2007, 2009) study on the use of Mathematical textbooks in Irish infant classes which revealed that some 95% of teachers of four and five year old children attending primary schools in Ireland reported that they used textbooks/workbooks with the children. Approximately four fifths of these teachers in Dunphy's (2007, 2009) study stated that they thought that textbooks enhanced their teaching in some respects. Textbooks were seen by many respondents in Dunphy's (2007, 2009) study who taught in multigrade settings as an important means of managing learning in these contexts. Both of these findings may be suggestive of a somewhat formal approach to teaching Junior Infants in multigrade settings. These findings correlate with those of Murphy (2004) who indicated that a predominance of teacher controlled activities were also observed in senior infant classes of Irish primary schools.

The highest level of disagreement found in this section was with the statement that whole class teacher-led activity was the most essential strategy for guiding learning in multigrade classes (59%, n=83). This is a surprising finding given that during many of the classroom observations I undertook, I noted that outside of literacy and numeracy activities, the children were taught in whole class groups. Findings from my observations in multigrade classrooms were closer to those from Murphy's (2004) study which noted that whole class, large-group and parallel instruction was being used 'frequently' or 'very frequently' by 85% of the surveyed teachers. Although it was not possible to probe this item with respondent, it is

possible to speculate perhaps that teachers were disagreeing with this item at an ideological level though actively embracing it in practice. The necessity to speculate also demonstrates the limitations of the questionnaire as a source of evidence.

The statement on whether small group teacher-led activity is the most essential strategy for guiding learning in multigrade classes produced a greater spread of opinion. 69% (n=97) of respondents agreed with the statement while 18% (n=26) gave a negative answer. The response to the statement that in terms of teaching and learning in multigrade classrooms there is likely to be a greater prevalence of teacher directed instruction, was also quite dispersed. However, given that 51% (n=72) of respondents were in agreement with the statement there is some evidence to suggest that provision for young learners in multigrade classrooms can often be challenging with teachers finding it difficult to balance teacher directed strategies with child-led pedagogies associated with effective early years learning.

There was also a mixed response to the question of the challenge of implementing activity-based learning in the multigrade classroom. While 32% (n=46) of teachers believed it is possible to incorporate time for activity-based learning, some 59% (n=83) of teachers perceive that implementing an activity-based pedagogy is a significant challenge for teachers of junior infants in multigrade classes. This finding in itself suggests that educational provision in the early years of the multigrade primary school might typically include a more formal and traditional approach to learning which demands that children engage in particular ways if they are to succeed in classes alongside older children

Table 5.6 Approximate percentage of time devoted to each of the following teaching strategies with Junior Infants in multigrade classes over a period of a week.

Teaching Strategy	**0-25%**	**26-50%**	**51-75%**	**76-100%**	**Total**
Whole class instruction	28% n=39	50% n=67	17% n=24	5% n=7	100% n=137
Class group instruction	17% n=22	45% n=58	26% n=34	12% n=16	100% n=130
Small group teaching (within one class)	48% n=60	32% n=40	16% n=20	4% n=5	100% n=125

Teacher directed individual activities	64% n=80	24% n=30	10% n=12	2% n=2	100% n=124
Child initiated individual activities	77% n=90	20% n=23	3% n=4	0% n=0	100% n=117
Cross age tutoring	79% n=92	16% n=18	3% n=4	2% n=2	100% n=116
Peer tutoring	85% n=91	10% n=11	4% n=4	1% n=1	100% n=107

Teachers were then asked how they allocated time on a variety of teaching strategies. Firstly, teachers were asked to estimate how frequently they used various teaching strategies with junior infants over the course of a week. These findings are displayed above in Table 5.6.

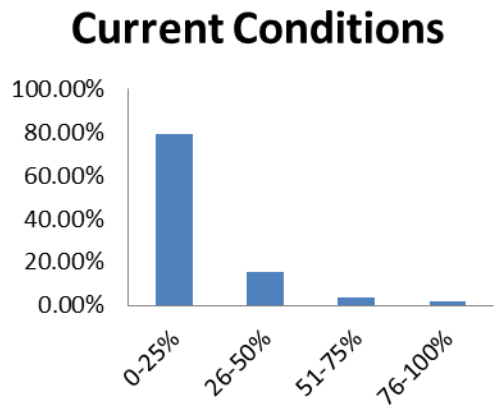
Currently, the strategy used by most teachers for a greater time during the week was whole class instruction. 50% (n=67) of teachers used the strategy for 26-50% of time during the school week. This is an interesting finding given that a majority of respondents disagreed that it was not the most important strategy (Table 5.4). Such irregularities may point to the paradox faced by teachers who may be implementing a strategy for practical rather than aspirational reasons. A further 17% (n=24) devoted 51-75% of their working week to this strategy. Given that more than a quarter of children in this survey (27%) were in classes of over 20, teachers who are struggling to teach so many children may resort to whole class teaching out of necessity.

45% (n=58) of respondents reported they used class group instruction for 26-50% of the school week, while a further 26% (n=34) devoted 51-75% of instruction time during the week to this strategy. Teachers did not, in general, subdivide their Junior Infant class to work in small groups within their class grouping with 48% (n=60) of teachers devoting 0-25% of class time to this teaching strategy. Given that, in general, children do not work in small groups other than their class groups it is likely that this finding indicates that teachers' understanding of this small group is indeed class group.

Cross age tutoring and peer tutoring were the least used of the teaching strategies listed. 5% (n=6) of respondents used cross age tutoring for 50-100% of the week, while 5% (n=5) of teachers who use peer tutoring do so for 50-100% of the time. This finding concurs with that of Veenman (1995) who suggests that it is unfortunate given the ideal opportunities the multigrade setting provides for

implementation of this strategy and the fact that these grouping arrangements are associated with enhanced pupil achievement. One reason for such low levels of cross age and peer tutoring enacted in multigrade schools may be attributed to the lack of guidance teachers receive for collaborative learning from Inspectors in their WSE and WSE-MLL reports (DES, 2013, 2014). Mason and Burns (1996) also point out that not enough is known about cross grade grouping in order for teachers to implement it successfully. It is also interesting to note as illustrated in Figures 5.5 and 5.6 below, that given an option of ideal conditions teachers would increase time spent on both cross age tutoring and peer tutoring.

Figure 5.5: Cross age tutoring in current and ideal conditions (percentage of time per week)



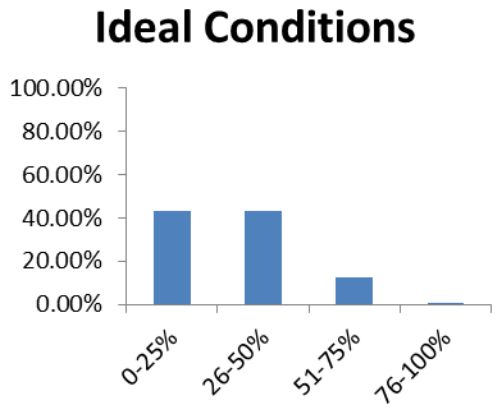
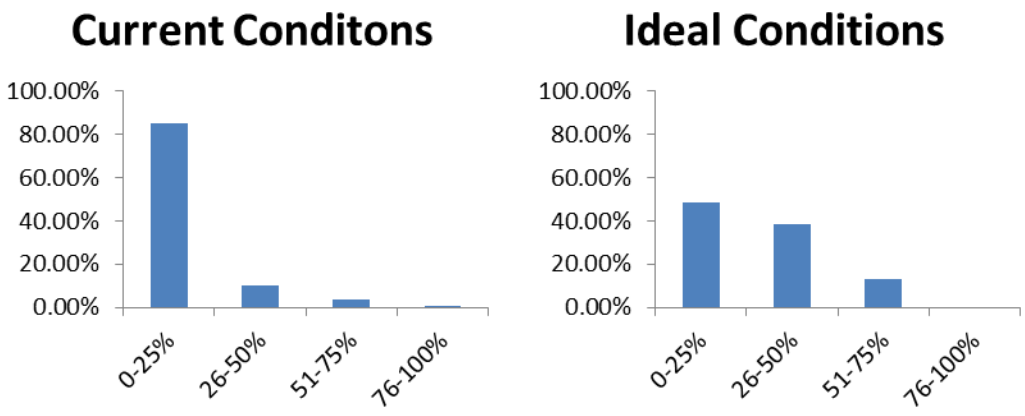
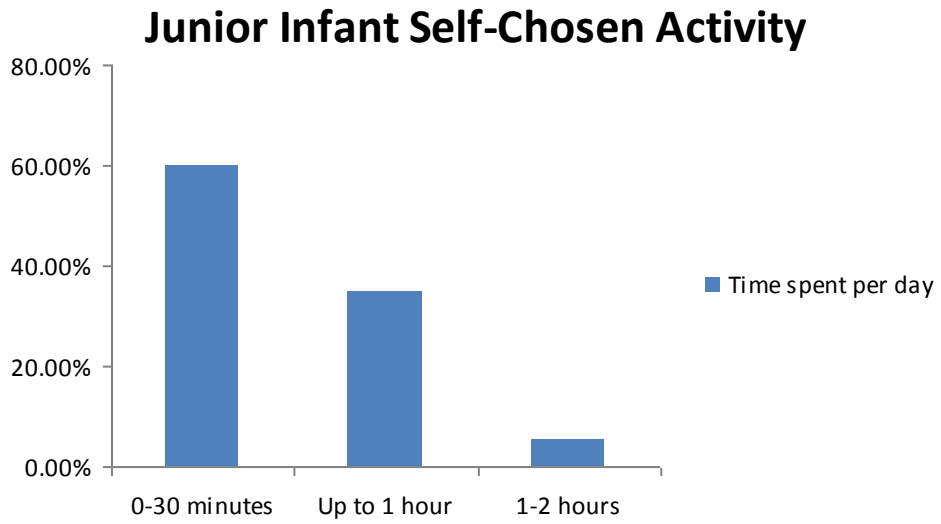


Figure 5.6: Peer tutoring in current and ideal conditions (percentage of time per week)



Keating's (2000) research investigating early childhood pedagogy presents dilemmas about child-initiated and teacher-initiated interactions. Teachers in Keating's (2000) study identified that they felt under pressure to give precedence to literacy and numeracy and this happened they felt at the expense of child-initiated learning. These dilemmas are also experienced by some of the teachers surveyed in this study. Teachers were asked to indicate approximately how much time per day that Junior Infants engaged in self chosen activity. The results which are shown in figure 5.7 below indicate that only 5% (n=7) of teachers report that children engage in spontaneous or self chosen activities for anything more than one hour per day. In the majority of the case study schools the children's autonomous behaviour was severely restricted by the structured approach and the over-directed nature of the classes removed the opportunity for children to develop independence. At no point in any of the classes observed were children able to pursue any activity that they chose themselves.

Figure 5.7: Time spent by Junior Infants in self-chosen activity



Section Four: Junior Infants interaction with older children

As this questionnaire study is guided by the sociocultural theoretical framework which suggests that learning arises both as a result of deliberate guidance of the learner by a more capable peer and, incidentally through participation in collective activities with members of the learning community, teachers were asked about the levels of interaction between the Junior Infants and the older pupils in the classroom.

Learning with older children

There is some evidence that there are positive learning opportunities presented to pupils in multigrade classes. Among the most commonly mentioned are the opportunity for 'cognitive stretching' (Berry and Little, 2006) which in particular 1the younger children in the classroom. Furthermore, Feldman and Gray (1999) express that the benefits for pupils are that younger children actively seek the help of older children to gain knowledge and to develop their skills. Respondents of the questionnaire survey in this study clearly agree as is evidenced in the findings presented in Table 5.7 below.

Table 5.7: Interaction of younger children with older children

	Disagree/ Strongly Disagree	**Not sure**	**Agree/ Strongly Agree**
Younger children actively use older children to develop skills	14% n=20	5% n=7	81% n=114
Younger children actively use older children to	6%	8%	86%

acquire knowledge	n=8	n=11	n=122
The family atmosphere of the multigrade class community can facilitate increased social interaction among children of different ages	0% n=0	3% n=4	97% n=137
Older children actively look out for younger children in the class	3% n=4	6% n=8	91% n=129
In multigrade classes younger children benefit more than older children because they have someone to learn from	27% n=38	11% n=15	62% n=88
Learning from older pupils in the class is more likely to benefit academically more able younger pupils	13% n=18	8% n=12	79% n=111
Junior infant children with older siblings in a multigrade setting integrate more easily	13% n=18	11% n=16	76% n=107
Multigrade settings are hugely beneficial socially for only children (children without siblings)	5% n=7	19% n=27	76% n=107

Teachers were asked to identify the extent to which they agreed about the particular types of interactions occurring in multigrade classrooms. These were, interactions based on skill development (81%, n=114 in agreement), acquiring knowledge (87%, n=122 in agreement), or social interaction (a 97%, n=137) in agreement. Comments such as the following illustrate their perspectives:

'Younger children settle into school very quickly with help from the older ones. For example they give help with tidying up, tying coats on the computer and at PE.'

'Junior Infants mature a lot during the year. I find that senior infants are quite helpful, they nearly show them the ropes and show them good example.'

91% (n=129) of teachers were in agreement that older children actively looked out for the younger children in the class. However, only a slight majority (62%, n=88) of teachers agreed that it was the younger children in the class who benefited more than the older children from these interactions. One teacher commented:

'Junior Infants become independent quite fast. They learn to work in a group situation quickly. Social skills develop quickly by example. More capable infants learn a lot from First Class especially things like Gaeilge ó bhéal'

79% (n=111) teachers were in agreement that it was actually the academically more able children that benefited most from their interaction with older children as they had opportunities to be exposed to a more challenging curriculum or were 'tracked up' (Hallinan, 2003). Mulryan'-Kyne's (2004) research concurs with this

finding as 39% of the teachers in her study agreed that it is higher achieving younger children in a group who benefit more from multigrade classes.

A significant majority of teachers (76%, n= 107) agree that children with older siblings integrate more easily in multigrade classroom settings. This finding is also consistent with that of Mulryan-Kyne's (2004) research where it was found that younger children have an added sense of security when they share their classroom with their older siblings. Interestingly, in this research study the exact same majority (76%, n=107) believe that multigrade settings are very beneficial socially for only children (children without siblings).

Section Five: Benefits of multigrade class

The notion that younger pupils benefit from the diversity possible within multigrade groupings is reflected in much of the literature (e.g. Katz, 1992; 1995). In this section respondents were asked to indicate how beneficial they felt a range of statements were with regard to Junior Infant pupils in particular. The statements are outlined in Table 5.8 below

Table 5.8: Benefits of multigrade classes according to teachers

	Beneficial	**Definitely Beneficial**	**Total**
Engage in communication with older children	43% n=60	50% n=71	93% n=131
Community atmosphere facilitating increased social interaction	40% n=56	51% n=72	91% n= 128
Opportunity to imitate the positive behaviour of older children	41% n=57	50% n=71	91% n=128
Exposed to more challenging curriculum	44% n=62	45% n=63	89% n=125
Engage with older children as playmates	42% n=59	47% n=66	89% n=125
Opportunity to develop independent learning skills	51% n=72	32% n=45	83% n=117

The highest level of agreement found in this section was with the statement that the opportunity for Junior Infant children to engage in communication with older children is of great advantage to them. This finding concurs with those of Chase and Doan (1994) who state that older children spontaneously facilitated younger children's

behaviour when they worked in small mixed-age groups. When groups of children ranging in age were asked to make decisions, they went through the processes of reaching a consensus with far more organizing statements and more leadership behaviour than children in same-age groups. Other prosocial behaviours such as help-giving and sharing were also more frequent in mixed-age groups.

The evidence on socio-emotional development is generally favourable for multigrade classes (Galton and Patrick, 1990, Mason and Burns, 1996, Miller 1991, Pratt, 1986, Veenman, 1995, 1996) In my study similar positive agreement with the statements that the community atmosphere in a multigrade class facilitated increased social interaction (91%, n=128) and that the opportunity to imitate the positive behaviour of older children as a benefit for Junior Infant pupils (91%, n=128) was also evident from the respondents. This finding agrees with those of Berry and Little (2006) who report on a study of multigrade teachers and headteachers stating that a commonly mentioned opportunity for younger children was 'behavioural stretching' which is an opportunity for younger pupils to learn appropriate social behaviours from the older pupils.

Respondents were also in general agreement that being exposed to a more challenging curriculum (89%, n=125) and having regular opportunities to engage with older children as playmates is distinctly advantageous for the pupils in a Junior Infant class of a multigrade school (89%, n=125). Finally, teachers were slightly less in agreement with the statement that Junior Infant children have opportunity to develop independent learning skills in a multigrade setting (83%, n=117).

Some of these themes were further explicated in the open section of this questionnaire survey, where survey teachers were asked that, if given a choice, they would they prefer to teach Junior Infants in a multigrade or single grade classroom setting. There were a total of 136 responses (5 were not completed) to the statement and, given a choice, 81 of the respondents would prefer to teach in a multigrade infant class whereas 55 would opt for a single grade setting. Teachers gave several reasons for their choice citing many advantages for teaching in these settings (Pratt, 1986).

Table 5.9: Reasons for teacher preferences for multigrade classes rather than single grade classes

Reasons teachers prefer to teach Junior Infants in a multigrade setting	**Frequency referred to by respondents n=81**

1. Learn from older children	24
2. Continuity of progression/flexibility	15
3. Enhanced opportunity for social development	11
4. Easier transition/settling into school	11
5. Class size	11
6. Teacher enjoys multigrade, finds it rewarding	10
7. Exposed to more challenging curriculum/opportunity to extend curriculum	9
8. Atmosphere: family, intimate, caring	8
9. More time for individual development	7
10. Variety in curriculum content for teachers	6
11. Beneficial for older children	6
12. Oral language development	4
13. Develop independence	4
14. Inclusion of children with SEN	4
15. Possibility of grouping	3

Of those who would prefer to teach Junior Infants in a multigrade class setting, fifteen of the most prevalent categories were determined and listed in order of choice the table above (Table 5.9). A number of respondents' answers fell into one or more categories and therefore the number of separate code responses at 133 was greater than the number of respondents.

The most frequently referenced category was related to there being older children in the class. In particular, teachers believed older children were 'role models' who set a 'good example' in terms of behaviour which the Junior Infant pupils could 'imitate'. In the mixed-age group, younger children perceive the older ones as being able to contribute something, and the older children see the younger ones as in need of their contributions. Katz (1995) suggests that these mutually reinforcing perceptions create a climate of expected co-operation beneficial to the children, and to the teachers. This belief is evident in the following respondents' comments:

'Their introduction to the classroom setting is much smoother as they have the older children as role models. Their progress is scaffolded by the experience of others. Older children are challenged when they have to explain their thought processes and methods to others'

'The interaction between older children and Junior Infants helps positively promote Junior Infants' confidence and sense of security in their learning environment.'

'*Older children can be a wonderful resource in a classroom that is crying out for the teacher to be better supported by the other personnel (who are not made available by the Department of Education and Skills)'*

The next most frequently given reason was the continuity of progression offered by the multigrade setting. Where children are with the same teacher over a number of years, teachers can follow up and monitor progress from year to year (Hopkins and Ellis, 1991). Many respondents believe this continuity is advantageous for Junior Infant pupils as the following comments identify:

'It offers an opportunity to see the Junior Infant developing to second class. This allows you to get to know your pupils well and helps you to help them develop to their full potential.'

'The multigrade setting is extremely beneficial to continuity in a child's education. It takes too long for a teacher in a single class unit to get to know the children. Multigrade teachers pick up where they left off the previous year.'

Teachers also have greater flexibility to manage the pace of learning within the classroom because as another respondent remarked:

'You have a very good idea where each child is at and having a child for a few years means you can work at the right pace, slower in some cases faster in others.'

These views expressed by teachers correspond to the suggestion that in mixed age groups, teachers are more likely to address differences between children (Anderson & Pavan, 1993; Katz, 1995, Lloyd, 1999). It is more acceptable given the wider age span in a group, that there will be a wider range of behaviour and performance. Then as one respondent remarked:

'Junior Infants come in at many different stages of development and with different levels of knowledge. A multiclass can better support a child's progression at his own level than a single class can.'

This was followed by three categories which were equally frequently referenced (at 11 responses each). The first of these was that teachers believed the multigrade setting gave younger children an enhanced opportunity for social interaction. The second equally frequent category was that Junior Infant pupils seemed to settle in more easily to school when they were in multigrade classes. Teachers reported that Junior Infants in multigrade settings 'settle in quickly and learn the ropes easily with help from older ones'. The final equally frequent category was class size. Teachers stated that small classes were especially beneficial in multigrade settings giving practitioners opportunities for 'more hands on teaching' or making it 'easier to spot problems'.

These views are supported by findings from research on teaching in small classes which identify several factors which characterised effectiveness in small class teaching. These included: teaching material quickly, allowing for additional material to be taught, increased opportunities to work with concrete material and additional individualised attention for pupils (Galton *et al.* 1998).

Following these again, with 10 responses, were teachers expressing their enjoyment of teaching multigrade classes. For example:

> *'As a teacher under pressure, the joy of seeing development in all kids is the best reward'*
>
> *'I love the variety of ages in a multigrade situation. I enjoy teaching lessons with a varied degree of difficulty'*
>
> *'The multigrade class provides more variety to the class content as content material to be covered in a single class can appear to be unchallenging and monotonous for the teacher.'*

Section Six: Challenges and difficulties

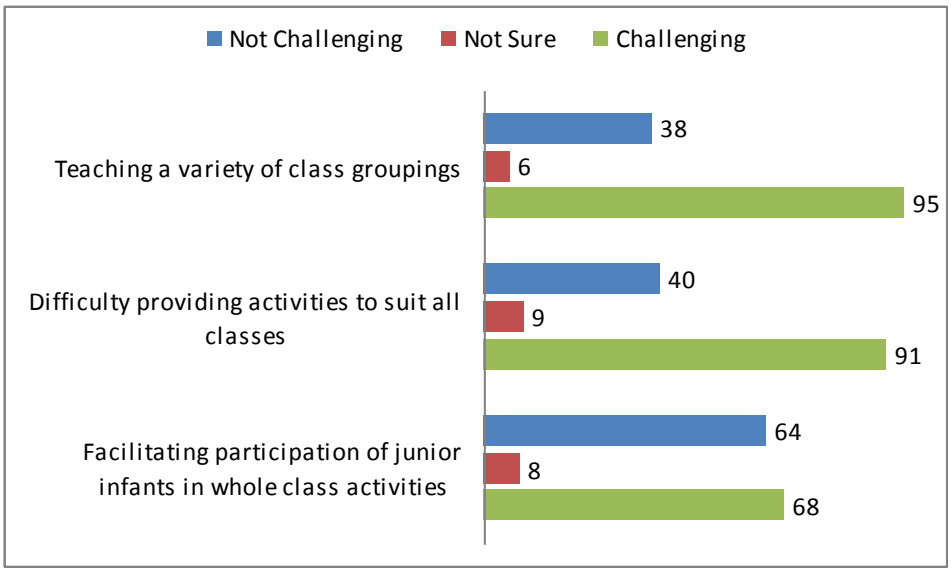
A number of researchers have referred to the negative perceptions of teaching multigrade classes which many teachers hold (e.g. Mulryan-Kyne, 2004). There is also a widespread belief that teaching in a multigrade class is a complex activity placing greater demands on teachers organisational and instructional skills. This section of the questionnaire contained 15 statements regarding the challenges which may be encountered in teaching junior infants in multigrade classes. The teachers were asked to score these statements on a five point Likert scale from 'definitely not challenging' to 'extremely challenging' with a mid-point of 'not sure'. The items were developed based on findings from both the case studies and the literature review stage.

Managing diversity

The first group of statements dealt with managing diversity in the classroom. The items included in this group were

- ***Item G:*** *Teaching a variety of class groupings*
- ***Item J****: Difficulty providing activities to suit all classes*
- ***Item K****: Facilitating participation of junior infants in whole class activities*

Figure 5.8. Possible challenges regarding the management of diversity in the multigrade classroom.



Item G, which suggested that teaching a variety of class groupings was challenging, had a significant level of acceptance (68%, n=95). This was followed by Item J that the difficulty providing activities to suit all classes was a real challenge for teachers (65%, n=91). Russell *et al.* (1998) found that teachers favoured teaching in single grade classes rather than multigrade classes because of the broad range of students in multi-age classes and the amount of work, organisation and planning required. One respondent explained her loss of efficacy in such a situation in the following comments:

'It is becoming increasingly difficult to deliver four separate programmes. Children are 'less able' coming to school. Parents and children are becoming more demanding. Actually this is a total change for me as I used to think it was easier to have Junior Infants in a multigrade situation. However, in the past number of years I find so much time is needed for basic language development, it is impossible to work with first and second classes until infants go home at two o'clock.'

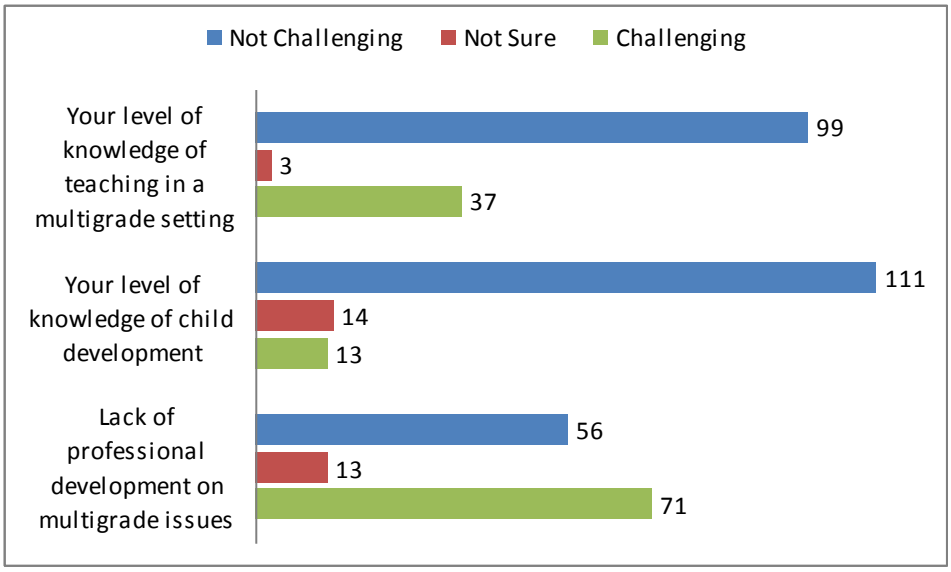
Finally, teachers' opinion on Item K which explored the challenge of 'facilitating participation of Junior Infants in whole class activities' was more widely dispersed. The item had the lowest acceptance level at 49% (n=68) but also had an almost equal level of rejection at 46% (n=64). This finding which suggests some teachers were more at ease with whole class teaching may be due to environmental influences such as the level of diversity among the pupils, the availability of resources or the numbers of pupils in each grade.

Knowledge of the teacher

This group of items examined the levels of knowledge of young children in multigrade settings which teachers may possess.

- ***Item F****: Your level of knowledge of teaching in a multigrade setting*
- ***Item M:*** *Your level of knowledge of child development (i.e. different ages and stages of children)*
- ***Item O:*** *Lack of professional development regarding multigrade issues*

Figure 5.9. Possible challenges regarding knowledge base of the teacher in multigrade classes.



In INTO (2003) research, there was general agreement among respondents that in the preservice training they received in Colleges of Education and the training provided for the implementation of the Revised Primary Curriculum, little or no attention was given to how to teach various curricular areas in multigrade classes. However, Item F (Teacher level of knowledge of teaching in a multigrade setting) was rejected by the

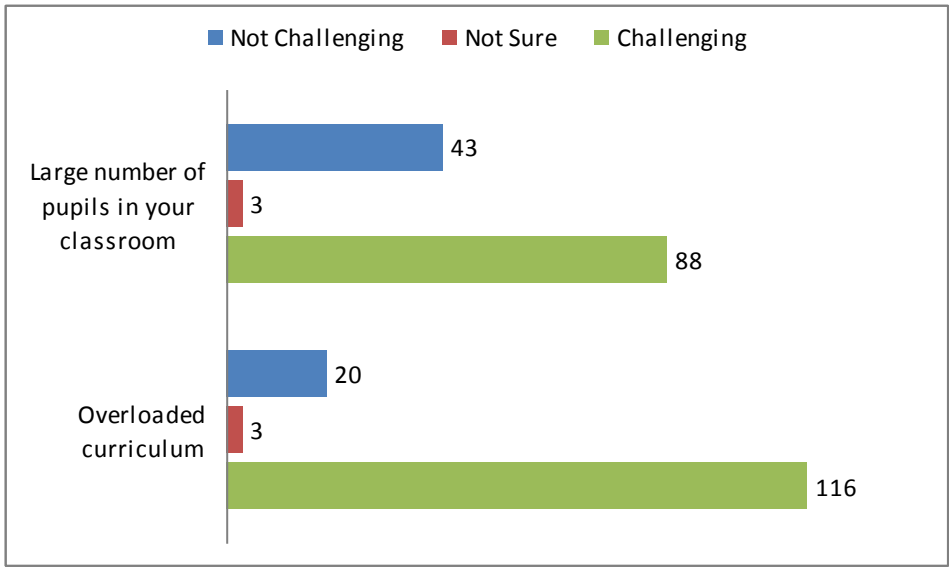
majority of teachers (71%, n=99). This finding probably reflects the professional background of the respondents who were a relatively experienced group with 65% (n=92) having at least six years experience of teaching in a multigrade setting. A high majority of teachers (80%, n=111) also rejected Item M (Level of knowledge of child development i.e. different ages and stages of children). There was a mixed response to Item O (Lack of professional development on multigrade issues) with 51% (n=71) considering this to be a challenging factor in their teaching, whereas 40% teachers, (n=56) were not in agreement. This finding may point to the need for greater levels and availability of opportunities for continuous professional development (Wilson and McPake, 1998; Morgan and Ó Slatara, 2005; Turner, 2008).

Curriculum and Class size

In curricular reviews (NCCA 2005, 2008) teachers and principals have identified *time* as one of their greatest challenges in implementing curriculum. There are two distinct aspects to this issue, namely, the size and scale of the curriculum and the challenge of meeting children's individual needs particularly in multigrade and large classes. This group of statements dealt with factors which may prove challenging in any classroom context but which take extra time in an already challenging situation in a multigrade school.

- ***Item A:*** *Large number of pupils in your classroom*
- ***Item E:*** *Overloaded curriculum*

Figure 5.10. **Possible challenges regarding pupil/teacher ratio and curriculum in multigrade classes**



Responses to the items in this group were far less dispersed. The most accepted statement, Item A (Large number of pupils in your classroom), with which 66%, (n=88) teachers were in agreement, confirmed that large classes can be a challenge for a significant number of teachers in multigrade settings. Mulryan-Kyne (2004) points to the difficulties inherent in large classes particularly when it comes to group work. Some of the teachers in Mulryan-Kyne's (2004) study argue that it is impossible to teach multigrade classes effectively with more than 15 pupils. The teachers in this study indicate their agreement in the following responses:

> *'Smaller numbers allow for more hands on teaching and integrated independent learning. It allows for projects to be done that could not be tacked in larger groups.'*

> *'Small class numbers mean everything is possible. Big classes stifle creativity and spontaneity. Really, the numbers in the class determine the teaching strategies used and a large number in the class is definitely the most prohibitive challenge.*'

Finally, Item E (Overloaded curriculum) showed that 84% (n=116) teachers were concerned about the overloaded curriculum which exists currently. This finding is consistent with research which showed that teachers regarded the demands of the revised primary school curriculum as too great for multigrade classes (INTO, 2003; Mulryan-Kyne, 2004). Concerns about an overloaded curriculum are indicated in the following comments by respondents:

> *'Differentiating one core curriculum is very different to delivering four different curricula. I am constantly juggling and struggling. I have worked for twenty years in a big school so I know the difference. Four classes is definitely the most difficult situation. It is impossible to deliver four curricula at the one time since the 1999 curriculum was introduced. We are the workhorses of the system.'*

> *'I can see all the benefits of teaching Junior Infants in a multigrade setting but to cover the curriculum is impossible, the curriculum should be revised for a multigrade setting.'*

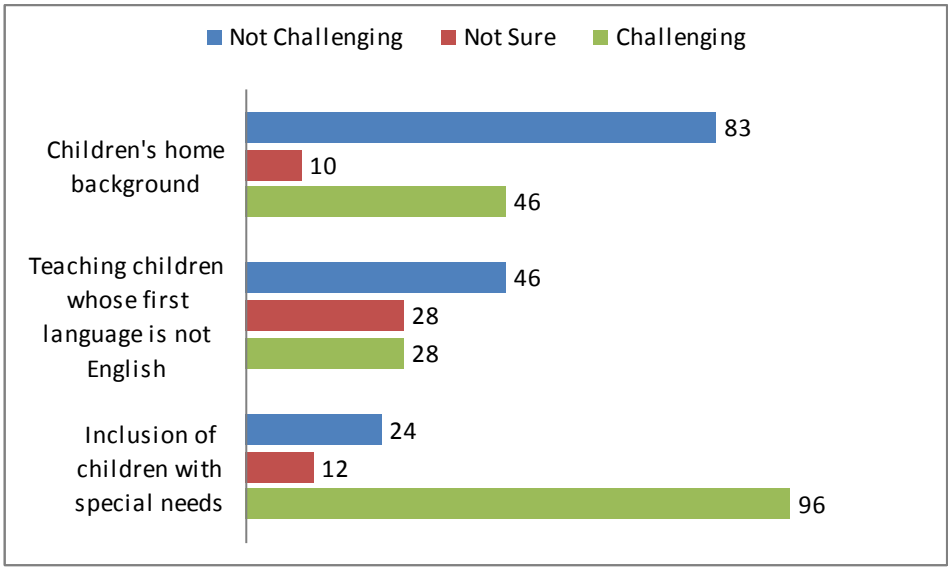
> *'In the past I would probably have ticked beneficial for most of the above. However, with increasing demands of the revised curriculum, I think the disadvantages for Junior Infants in the multigrade are far greater than the benefits'*

Teaching children with specific needs

The next group of items, shown below, look at whether teachers are challenged by children with extra needs. These needs were specified in the following three items.

- ***Item C:*** *Children's home background support*
- ***Item H:*** *Teaching children whose first language is not English*
- ***Item I:*** *Inclusion of children with special needs*

Figure 5.11: Possible challenges for teachers in facilitating children with special educational needs in multigrade classes



The most challenging issue for teachers in this group of items was Item I (Inclusion of children with special needs), which the majority of teachers 73%, (n=96) found difficult. The response was more dispersed for the other two items. For example, with Item C (Children's home background support), a third (n= 46) of teachers found it difficult to cope with children who had unsupportive home backgrounds while the

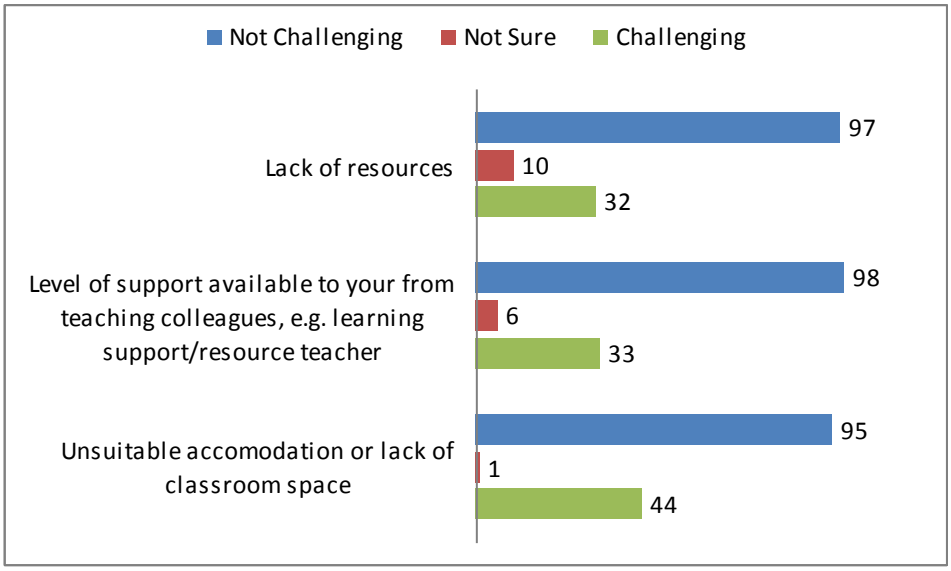
majority, 60% (n=83) had little problem with this area. Also, teaching children whose first language is not English seemed to, in general, pose little problem for teachers in multigrade classes with 27% (n= 28) indicating they felt a challenge. This item had the highest 'not sure' element which may suggest ambiguity in relation to this topic and perhaps this could be reflective of the fact that non-national families may be more concentrated in urban and suburban rather than rural settings.

Resources, accommodation and additional teaching support

The final group of items was based around resources, accommodation and extra teaching support that is available from colleagues such as the learning support or resource teacher. The items included:

- ***Item D:*** *Lack of resources*
- ***Item N:*** *Unsuitable accommodation or lack of classroom space*
- ***Item L:*** *Lack of support available to you from teaching colleagues e.g. Learning support*

Figure 5.12: Possible challenge for teachers of multigrade classes by resource, accommodation and additional teaching support issues.



Contact and interaction with fellow teachers were an important element in continuing professional development for teachers. A difficulty which might arise in small schools is a lack of opportunity to discuss practice with others teachers (Vulliamy and Webb, 1995, Turner, 2008). In general, these issues did not seem to

pose difficulties for teachers in my study where 72%, (n=98), of teachers had adequate support from teaching colleagues.

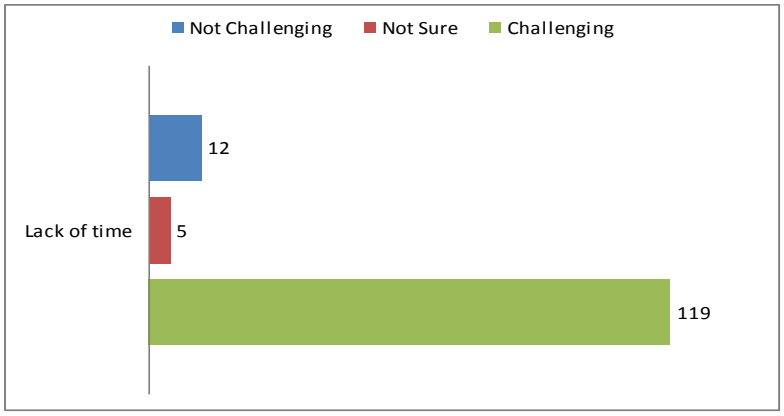
A majority of the teachers, 70%, (n=97) reported that they had sufficient resources for their multigrade classrooms. Similarly, 68% (n=95) adequate accommodation 67%, (n=95) reported their accommodation was suitable. These findings may reflect the adequate budgets that improved schools before the current economic recession set in.

Time Constraints

It is evident from the research that many teachers are concerned they do not have adequate time to spend with each grade level in each subject area (Anning and Billet, 1995; Mulryan-Kyne, 2004; Gaustad, 1992; Katz *et al*., 1989).

- ***Item B:*** *Lack of time in the school day*

Figure 5.13: Shortage of time in the school day



88%, (n=119) teachers agreed that lack of time was a challenging factor in their work. Data from Table 5.10 below indicates where in particular teachers feel they are pressurised for time.

Table 5.10: Time constraints in multigrade classes

	Yes	No	Total
Time to have sustained conversation with children	53% n=72	47% n=65	100% n=137
Time to play with children	30% n=41	70% n=95	100% n=136

Time to make observations of children	74% n=102	26% n=35	100% n=137
Time to discuss children's progress with parents	72% n=98	28% n=39	100% n=137
Time to discuss children's progress with colleagues	77% n=106	23% n=32	100% n=138
Time to enable children to develop their own interests	48% n=64	52% n=68	100% n=132
Time to provide children with free choice of activity	48% n=64	52% n=68	100% n=132
Time to plan learning activities	50% n=68	50% n=69	100% n=137

A majority of teachers do not have sufficient time for playing with children. There were divided responses in relation to time allocation for sustained conversations, enabling children develop their own interests, planning learning activities and providing children with free choice of activity. Finally, a majority of teachers felt they had enough time to make observations of children, to discuss progress with parents and colleagues. This finding concurs with that of Wilson (2003) who suggests that due to size and ease of communication in small schools, it may be easier for teachers to liaise with their colleagues and with parents.

As a number of sources (e.g. Gaustad 1995; Mulryan-Kyne, 2004) acknowledge the fact that teaching in a multigrade class makes greater demands on teachers' time and organisational skills than teaching in a single class and since this was borne out by this study, it was interesting that the final section asked respondents if given a choice they would prefer to teach Junior Infants in a multigrade or single grade classroom setting. As already noted there were a total of 136 responses (5 were not completed) to the statement and if given a choice, 40%, (n=55) of teachers would prefer to teach in a single grade setting. Teachers were then asked to give reasons for their choice and nine of the most common categories were determined and are listed in the table below (Table 5.11). (A number of respondents' answers fell into one or more categories and therefore the number of separate code responses at 64, was greater than the number of respondents at 55.) Although few new challenges were mentioned by teachers in this section, the information gathered was useful in providing an opportunity for teachers to give their personal views in greater depth and in producing more 'rich' evidence on the difficulties associated with teaching in multigrade settings.

Table 5.11: Reasons for teacher preferences for single rather than multigrade classes

Reasons why teachers would prefer to teach in single grade setting	**Frequency referred to by respondents** n=55
Pupils losing out on age-appropriate activities	16
Pressure of time	13
Covering curriculum for number of classes	10
Easier to focus on individual class	9
Teaching pupils with a range of ability	6
Overloaded curriculum	3
Planning challenges	3

The most frequently referenced reason as to why teachers may wish to teach Junior Infants in single grade settings was respondents views that younger children are 'losing out on age-appropriate activities' because they are in multigrade classrooms (referred to 16 times). This is evident in the following comments:

'*I am always dragging them along as I feel I must achieve standards with first and second classes'*

'Second class needs a lot of desk work and the two approaches do not work well.'

'Having a keen interest in early childhood I know there are restrictions in a multiclass setting. There is little opportunity to explore learning opportunities. Children miss out on the benefits of rich and varied early years programme.'

The next most frequent (13) set of responses referred to pressures of time.

'There are so many activities I would love to do but simply don't have the time. I feel I am rushing lessons and the children aren't getting enough opportunity for hands on experience. I feel I am rushing from activity to activity especially in maths where there is such a need for hands on'

I feel the children in a Junior Infant multigrade class do miss out on certain activities that may be done in single grade. I feel I don't always have the time to dedicate to reading big books and nursery rhymes and that older classes get fed up hearing stories and rhymes.

These comments are also reflective of a wider concern of increasing formalisation of learning experiences of younger children across the field of early childhood education contexts (Dockett, 2010, Hatch, 2002a). Out of the 136 responses, 10 mentioned the difficulties they faced in covering the Curriculum for all the grades they taught.

'Teaching Junior Infants is not satisfying when the pressure of fulfilling curriculum for the other three classes takes over. Having taught in single and multigrade classes I feel they don't get the start they need.'

'There are no 'spare' moments in multigrade situation. In an ideal situation they should not be paired together. It is constant go due to jam packed curriculum. Is multigrade fair to either grouping? No!'

This was closely followed by references to how much 'easier it is to focus on one individual class rather than a group of classes' (9 references). The next most frequent reason given was the challenge involved in managing the range of academic ability among pupils in multigrade settings.

'I feel I am juggling too many balls and the best I can do is to teach to the average child so both higher and lower lose out'

'Definitely easier to teach in single class, provide for those who need depth/range of teaching strategy appropriate to level'

'Unfortunately subjects such as PE and drama (Art to a lesser extent) must operate at a whole class level. Due to differing stages of development (especially in skills) this is inappropriate and educationally unsound.'

This was followed by more general statements on 'overloaded' curriculum and on the difficulties teacher experience in planning for 3 or 4 grade classroom situations. There were 3 references made to each of these categories. These findings concur with research literature on teacher perceptions that multigrade classes involve an extra workload (Wilson, 2003).

The responses of case study teachers of Junior Infants in multigrade schools were presented in earlier sections of this chapter, under headings similar to those used in the questionnaire. In general, the questionnaire findings confirm what was highlighted by a number of practitioners in the case study stage of the research. In relation to pedagogical approaches, teachers found it challenging to implement a range of teaching strategies and tended to favour whole class teaching and class group teaching with pair tutoring activities being implemented much less frequently. Most participants agreed that while children availed of opportunities to play both with older children and their peers and were involved in a variety of activities, play was curtailed due to restrictions placed on noise levels in classes. In general, the opinions expressed by respondents seemed to indicate a more formalised approach to teaching Junior Infants which was in keeping with other research in Irish early years settings (e.g. Dunphy, 2007, 2009, Murphy 2004).

5.6 Key Findings Questionnaire

The findings of this questionnaire survey indicate that teachers feel they face a number of challenges in teaching Junior Infants in multigrade settings. The area that was felt to pose the greatest challenge for teachers is curriculum enactment where teachers face tensions associated with teaching a variety of age groups. The complexity of teaching in a multigrade class is exacerbated by what is perceived to be an already overloaded curriculum, large class sizes, disproportionate pupil/teacher ratios and the inclusion of children with special educational needs. In the complexity of the multigrade classroom many teachers reported being negatively influenced by time pressures and insufficient time for interaction with younger children which they regarded as essential element of sensitive and responsive teaching.

A majority of teachers believed teacher directed instruction was an inevitable consequence of teaching in a multigrade class, where the use of workbooks and worksheets were an essential resource for young children. Grouping strategies most used by teachers for a greater time during the school week were whole class instruction and class group instruction whilst cross age and peer tutoring were the least used of all teaching strategies.

Teachers in this study have indicated high levels of agreement with the benefits of multigrade settings for younger pupils. These include the fact that younger children have older children whom they use as role models to develop their skills and knowledge. The family atmosphere in the multigrade class facilitates increased social interaction where the older children were believed to actively look out for their younger classmates. Junior Infants with older siblings and only children with no siblings were thought to benefit most of all.

What emerged from the findings was that there were conflicting demands between the kind of practice teachers felt compelled to implement and their beliefs about what early childhood practice should be. More than half of respondents believed that it was difficult to implement the range of teaching strategies most suited to younger learners and in particular teachers revealed a tension about not being able to implement a play-based pedagogy. There was general acceptance of the benefits of mixed age play with the vast majority of respondents agreeing that Junior Infant children engage in more complex and challenging play activities when interacting

with older children. However, differences were found among teachers in the ways in which they saw the possibilities for implementation of play-based learning activities and the need for teachers to maintain low noise levels to support formal learning of older children emerged as a constraint.

These questionnaire findings confirm what was highlighted by a number of teachers in the case studies of the research: that while many teachers find teaching in these settings satisfying, they also experience significant challenges with regard to organising and managing their classes for teaching and learning. Most teachers experience difficulties in attempting to facilitate learning across grade levels and in catering for the needs of individual pupils with special educational needs (Mason and Burns, 1996). Apparent throughout the findings has been the fact that respondents found both benefits and challenges in equal measure. The benefits most often associated with the multigrade setting centred on the opportunities reported for positive social interactions between younger and older children.

5.7 Conclusion

The results in this Chapter were presented in three separate parts: the findings of two case studies, a cross case analysis of all eight case studies and the findings from the nationwide questionnaire survey. This section aims to summarise these findings as a whole under the four key themes identified in the case studies and cross case analysis. Differences and similarities are emphasised in particular between the findings from the cross case analysis and the questionnaire findings.

The first key theme, 'Pedagogical Interactions', dealt with interactions that took place between the adults in the multigrade setting and Junior Infant pupils. Section Three of the nationwide questionnaire, looked at the issues which pertain to teaching strategies in multigrade classrooms. Very mixed views emerged. On the one hand, the vast majority reported that workbooks and worksheets are a necessity. This finding was borne out in an evaluation of curriculum conducted by the Inspectorate of the Department of Education and Skills (2005) where they believed that in some cases textbooks were exerting a strong influence on teachers planning (DES, 2005). Furthermore, over half of the teachers believed that a predominance of teacher-directed activity was an inevitable consequence of teaching in a multigrade class and the most frequently used grouping strategies were teacher directed whole class

instruction and teacher directed class group instruction. These three findings suggest that teachers may lean towards more teacher directed approaches to pedagogy in multigrade settings. On the other hand, almost one third of teachers believed that implementing activity-based learning was not a challenge. This finding suggests that significant numbers of teachers were then implementing activity-based, child-centred learning approaches. Further evidence of activity-based approaches to learning in the case study schools might have been expected to be found. However, this was not the case.

The findings from the case studies and cross case analyses adds further detail to how the pedagogical approaches of teachers in each school emerged and were shaped by managing the complexities of the multigrade setting whilst being rooted in the curricular positions adopted by teachers. In Abbeytrasna NS and Scoil Eirne, the pedagogical approaches of Orla and Jane place the Junior Infants at the centre of classroom activities scaffolding their learning and helping them to make connections between their experiences and their learning through facilitation of episodes of sustained shared thinking. In Cashelbeag NS and Kildubh NS pedagogical interactions in the classrooms were predominantly teacher-directed where both Edel and Ann largely controlled activities and positioned themselves in the main within a technical or conforming approach to curriculum. Edel and Ann worked with each grade separately and when the children were not being taught, they sat at their tables completing worksheets and workbooks.

From analysis of the data in both the case studies and the cross case the evidence suggests that teachers used a wide variety of pedagogical strategies. This finding concurs with the views of teachers in the questionnaire survey where over a third of teachers do not think it is problematic to use a range of teaching strategies required to meet the needs of Junior Infants in the multigrade setting. However, there was a marked absence of play-based pedagogies employed in the case study schools. Once again there was some ambiguity related to this finding in the questionnaire survey. Almost half of the respondents, disagreed with the statement that play opportunities were limited in multigrade classes. The finding begs the question that if teachers did not feel their settings impeded opportunities for play, why then was there not more play-led learning in evidence in the case study schools? Admittedly, juggling the demands of teaching many classes is a daunting task and almost three quarters of respondents expressed difficulty in facilitating participation of Junior

Infants in whole class activities with a further high majority expressing difficulty in providing activities to suit all class levels.

The second key theme, entitled 'Participation' is a distinctive feature of the situated nature of learning. The concept of participation is used initially to describe the moment to moment engagement of the Junior Infants in the shared social practices of their multigrade classes. In later sections these moments are seen to connect over time to develop a learning history of the Junior Infant pupils. The evidence from the eight case studies indicated significant differences in the forms and extent of participation available to the Junior Infants across the schools. This theme is linked to the first in that children's participation can be influenced by the strategies used by the teacher and to how she positions the children in the classroom.

In the questionnaire survey, teachers appeared to promote learning in line with a sociocultural perspective. However, there appeared to be differences between rhetoric, in terms of where one positioned oneself ideologically in relation to curriculum and pedagogical practices and the actual practice enacted in the classroom. For example looking at Maureen, the teacher in Drumleathan NS, her position appeared to lie towards a child-centred approach to curriculum and pedagogy. While certainly she made efforts to promote play-based learning experiences for the Junior Infants, she was particularly hindered by the challenges of the multigrade context. These included four grade groupings, very large numbers, diversity within the pupils and lack of teaching and SNA support. In other words, when these challenges were added to the mix, Maureen was less able to enact her preferred approach.

The third key theme was related to younger and older children working together. It was clear from both sets of data that most teachers believe the possibility of mixed-age learning to be the most beneficial element of multigrade classes for younger children. Teachers saw younger children as having resources in the older children where they could help the younger children and the younger children would learn from the older ones. Section Four of the nationwide questionnaire survey contained two items which were based around the issue of whether younger children actively sought the help of older children in developing their skills and knowledge. Both items had significant levels of agreement. However, although teachers may have expressed belief in the benefits of mixed-age interactions, this did not often translate to practice in the case study schools. There was an indication from a number of the cases that cross age and peer tutoring group interactions were happened sporadically.

This finding was also borne out in the nationwide questionnaire survey where cross age and peer tutoring were the least used of the teaching strategies. This finding concurs with the research literature which suggests that multigrade teachers do not make adequate use of these strategies and of the potential of the multigrade setting for mixed-age learning.

The final key theme was concerned with the community of practice as it developed across the eight case study schools. Lave and Wenger (1991) focus on the community level and hence the ideas of the community of practice with apprentices 'learning the trade'. The Junior Infants learned to be pupils by entering the community and practice of school, beginning on the outside as novices and as understanding increased, moving towards more central participation in that community of practice, eventually taking part in it's transformation. At times the Junior Infant children were afforded opportunities to be creative and strategic members of communities of practice who construct, reconstruct and respond creatively to their multigrade classrooms, whereas at other times the analysis emphasized how institutional structures constrained their participation.

Apparent in all four of the key themes identified in the case studies and in the cross case analysis has been the fact that there is no common consensus in relation to the various issues surrounding learning and teaching in multigrade settings. Data from this study has highlighted significant differences in pedagogical approaches which remain dominant in educational discourses. Teachers held various opinions on how children learn and develop and this was seen to determine what was selected to be included in curriculum and how it was taught, including which classroom resources, organisational and pedagogical strategies were considered to be appropriate and the nature of the teacher's role and relationship with learners. In all of this however, the complexity of the multigrade situation emerged as a constraining rather than an enabling factor with only a minority of practitioners and children able to appropriate the necessary attitudes and behaviours to capitalise on its benefits.

CHAPTER SIX: THEMATIC ANALYSIS

6.1 Introduction

The data analysis in this chapter shifts focus allowing a broader picture of learning as it occurred in the multigrade schools to emerge. The analysis presented under three key themes of this chapter, 'Apprenticeship and Agency: Challenge and Complexity', 'Identity and Belonging: Belonging and Identity?' and 'Power and Positioning', engages with the study of children's learning in multigrade settings and attempts in particular, to capture the dialectic between participants, participation and meaning making. I employ elements of the theoretical framework outlined in Chapter 2 and the review on multigrade literature in Chapter 3 to interrogate how teachers 'shaped' their practice and what this practice looked like in classrooms. Although there are significant points of intersection between the three themes, each theme pursues a nuanced understanding of children's agency, identity and power dynamics in the classroom.

6.2 Theme One: Apprenticeship and Agency: Challenge and Complexity

Rogoff (1990) has taken Vygotsky's (1978) idea of cultural learning and explored the concept in terms of the metaphor of 'apprenticeship'. This concept has been further refined and is now considered as part of Rogoff's (1995) 'planes' of analysis. Rogoff's (1995) has identified three interconnected planes of analysis with corresponding developmental processes

1. *Community or Apprenticeship plane in which the focus is on the whole cultural/institutional context*
2. *Interpersonal plane or Guided Participation in which the focus is on the social context*
3. *Personal plane or Participatory Appropriation in which the focus is on the individual.*

Rogoff described these as 'inseparable, mutually constituting planes comprising activities that can become the focus of analysis' (2008, p. 58). Rogoff's (1990)

community plane and her interpersonal plane are central to the analysis in this section but in the discussion of the findings below, each plane is foregrounded separately while at the same time understanding the position and influence of the other two planes. The interpersonal plane examines the everyday events where individuals engage with each other. At the micro level, Rogoff's (1995) personal plane examines how children transform their understandings through their own participation in classroom activities and in the process become prepared to engage in subsequent similar activities. As such, Rogoff's (1995) planes are integrated into the analysis of activities and events so the relationship between the individual and the social and cultural environment can be more fully conceptualized.

Enhancing Agency: Children Offering Alternative Ways of Knowing

Beginning with the community plane, Rogoff (1990) proposed the model of 'apprenticeship' in which there is active participation with others in culturally organized activity that has as part of its purpose the development of mature participation in the activity by less experienced people. Engaging with the apprenticeship plane means we can see how the cultural context mediates children's participation in learning opportunities and learning 'by osmosis' (Rogoff, 2003, p. 238). The metaphor of apprenticeship focuses on the active role of the newcomers themselves who are learners operating on the periphery and gradually moving to central participation as they become more skilled (Rogoff, 1990, Lave and Wenger 1991).

The data which emerged from this study provided some rich insights into the area of inclusion of children with special educational needs in the classroom. The emphasis on inclusion as conceptualised by the international early childhood education research community (Drifte 2001; Carpenter, 2005; Jones 2005) presented as a particular challenge for teachers of multigrade classes. Evidence from the questionnaire survey of this study corroborates these international perspectives. In this study, three Likert type items were developed in Section C of the nationwide questionnaire which was concerned with whether teachers were particularly challenged by teaching children with specific needs in a multigrade class. Of the practitioners who responded 68% (n= 96) found it challenging to teach children with special educational needs within the multigrade context.

Recent emphasis on the role of inclusive practice in the early years has focussed, among other considerations, on the realisation that participation in practice requires an initial commitment by teachers to providing appropriate contexts in which children with special educational needs can explore options necessary for active participation (Cooper and Jacobs, 2011). The contrasting vignettes below describe how two children with special educational needs were successful or not in negotiating increased participation within their multigrade classrooms.

The first 'newcomer' is Edward in Kildubh NS. Edward has a physical disability with some difficulty walking. Although he has no obvious intellectual difficulty, he does have difficulty with expressive language. He sits alongside an SNA, Claire who helps him with physical activities. Earlier during the day of this observation, Ann the teacher has asked Claire (as she did frequently) to 'take Edward for a little walk' out of the classroom and he had also spent a further forty minutes out of the class with the resource teacher. This particular vignette took place during a literacy lesson where each of the three grades was involved in a discrete activity each of which had been outlined clearly by the teacher, Ann. Ann takes a 'conforming to society' position on the curriculum (Mac Naughton, 2003, p.121) which is a technical approach where each of the three activities was tightly organized around a time schedule, using learning resources that were geared towards achieving pre-planned objectives and imparting knowledge that was in some way pre-packaged. In the vignette described below, the task of the Junior Infants was to lay out their word flashcards and then to chose the correct one on Claire's instruction. It had taken effort on Edward's part to lay out his cards and he appeared very satisfied that he was able to accomplish the task and to be involved in reading the flashcards. Ann then came to work with the Junior Infants and she addressed Edward exclaiming 'These words are a little crooked; we won't be able to see them.' She believes that the Junior Infant pupils learn in more of less the same ways and in this instance draws on didactic principles assuming they will only be able to read their flashcards correctly if they are completely straight. At the beginning of the activity, Edward seemed to have found a successful strategy for maintaining himself as a legitimate peripheral participant and was making a 'claim to competence' (Wenger, 2010, p. 3) in a bid to align his experience with that of the competence of the community. However, in the gesture of straightening the cards, Ann rejects Edward's attempts and impedes his efforts to belong in the community and to be accountable to it's regime of competence.

When Ann returns to the Junior Infant group later she asks the children to choose their favourite character from their class reader and to draw a picture of the character. On initial consideration of this episode, it would appear that Edward has some control over the activity, but as the episode evolves it becomes clear that in fact she expects each child to respond to her questions in similar ways and according to a structure she provides. After a few moments Ann comes to the Junior Infant group exclaiming to Edward 'I can't wait to see all the beautiful work. Which favourite character did you pick today?' There is no answer from Edward and he appears unwilling to reply. Ann repeats the question and still Edward does not reply. The other children and Claire, the SNA are all silent at this stage and appear to be nervous. Ann waits again and finally with increasing tension in her voice asks 'Now darling who did you pick today?' Eventually Edward answers 'Finn' to which Ann replies 'Finn, good stuff. Look at the 'I' in his name, it should go straight down.' Although from an outsider's perspective it is impossible to know what Edward is really trying to express, it appeared to me that he was asserting himself and attempting to regain control that he had earlier lost. By refusing to reply initially, Edward was perhaps experimenting with alternative ways of acting which establish his agency or he may have been afraid to reply. If this initial refusal to answer was something Edward was doing deliberately to be heard regarding something he believed was important, then it is a matter of 'power and counter-power' (Amot & Ytterhus. 2014, p. 265). However, refusing to give in to the pressure is naturally a risky business, so after some moments Edward did comply.

Ann's direction of classroom activities is pervasive and the children were encouraged to complete their activities within a number of minutes. In her wish to construct an environment that directly and indirectly reinforces what she wants the children to learn, she has developed a tight 'clock-bound' timetable that controls how long children spend on tasks. She believes this also helps 'manage' her three classes. To signal the end of the lesson, Ann requested that the Junior Infants line up at her table for 'correction' exerting continued pressure on them to act in prescribed ways. As each child's work is corrected and 'stamped' they thanked the teacher. When it comes to Edward's turn, he doesn't look at Ann, but Claire, the SNA physically turns his head to the teacher as Ann 'stamps' his work. Edward's resistance shows that as a young child he is not a passive recipient of his teacher's instructions. Rather, he is able to use his knowledge of procedures for action and his skills to gain control and

take an active stance in constructing daily life in his classroom. Through active resistance, Edward may assume control and clearly protest against the actions of the teacher. Hence, it is possible to understand Edward's act as an expression of resistance and a way of turning the balance of power between himself and the teacher around so that he assumes some control of the situation (Amot & Ytterhus, 2014).

In contrast, the curricular position adopted by Jane in Scoil Eirne aligns more with a 'transforming society' approach which is influenced by a social constructionist and post-modernist philosophy of children's learning (Mac Naughton, 2003). Much of the pedagogy I observed in her classroom was characterised by a respect for children's intentions, interests and motivations and as promoted by Siraj-Blatchford *et al.,* (2004), was based on frequent opportunities the children were afforded to engage in episodes of sustained shared thinking with an adult in the classroom. Jane's pedagogical practice was underpinned by the community of other adults in the classroom; Rose, the support teacher (who spent about forty minutes in the classroom everyday) and the SNA, Fidelma. All three shared a common understanding of how young children learn which Rix *et al.,* (2009) suggested was particularly significant in successfully including children with special educational needs in the classroom. In the early mornings all adults actively engaged with the younger children, in particular in activities centred on literacy and the adults would move around the table of Junior and Senior Infants sitting with individuals or small groups. When Jane shared books together with the children, the emphasis was on collaborative learning and I often heard the children's perspectives on the story or the pictures being discussed while they were engaged with her. Rose worked on writing activities and as described in the cross case analysis she encouraged the children to construct their own meanings in interaction with her (Mac Naughton, 2003)

A 'newcomer' in this classroom is Clodagh one of the two Junior Infants attending Scoil Eirne. Although Clodagh has special needs (she has High-Functioning Autism Spectrum Disorder), she is being facilitated to engage in full participation in this classroom. I noticed that sometimes Clodgah's behaviour was very challenging and she often did not wish to join in classroom activities. However, led by Jane's example, the other adults and Clodagh's classmates seemed to find a way to deflect controversy and allow her to negotiate participation. The overall structure of the day was built on an understanding that learning is collaborative and children were comfortable asking questions or seeking help if required. On one of my visits during

the first term Clodagh was the class leader for 'Setting Up the Day', a collaborative activity which routinely took place first thing in the morning. It was essentially a timetabling activity where the teacher and the children were jointly constructing the order of the day. Here Jane's approach illustrated the findings of research by Brophy (1988) which concludes that a child's interest and engagement in academic activity is enhanced when teacher's offer choices about what, where, how and with whom work is done. The approach to planning the curriculum was organic and involved the three adults, teacher, support teacher and SNA and sometimes the children acted as collaborators. There was a strong emphasis on personal responsibility for learning and Jane highlighted the importance of drawing on the voice of children in planning reporting that 'once the children are engaged in the planning stage of activities, they commit to making things happen.'

As the year progressed, I observed that Clodagh had increasingly easier access to many classroom interactions and resources. Because she was encouraged she had successfully established friendly relations with the adults in her classroom and she played alongside the older girls with whom she often sought to align herself. Furthermore, this school was located in an idyllic, rural setting located close to a river and woods which Jane made very effective use of for science lessons. Blumenfeld *et al.,* (1992) suggest that the importance of children being encouraged to research and make sense of their own world lay in the fact that where examples of scientific concepts are explored and related to the pupils' everyday experiences, pupils reported higher levels of motivation to learn. I observed several instances where the children explored scientific concepts in their environment working collaboratively with one another. For example, in the month of April a valuable teaching moment arose from a simple observation by Clodagh which illustrated how she maintained participation in an interaction despite the possibility of her being subordinated. Clodagh walked by the tadpoles who were swimming in a large glass tank set on the nature table, when she suddenly noticed and shared with the class that the 'Black things are getting bigger'. Jane explained that the tadpoles would soon hatch and they were eating the jelly which surrounds them. An older child asked what they would eat when the jelly was all gone. Sally, a child in the Senior Infants class suggested 'lettuce' but Clodagh knew lettuce did not grow 'in ponds' and suggested they may eat 'lily pads'. The teacher Jane then intervened telling the children that the tadpoles in fact eat tiny micro-organisms present in pond water. Jane was 'grounding' the curriculum in the

children's lived experiences, interests and concerns and the curriculum emerged from an intimate knowledge of the children and the community (Nimmo, 2002, p. 10). This short example is also illustrative of the manner in which the children in this classroom helped each other with working out solutions rather than competing to get the 'right' answer. The guidance of the 'oldtimers' shown in this vignette ensures that knowledge within the group is shared and extended. Clodagh, the newcomer moves to greater understanding and more expert participation.

Vygotsky's ideas about learning as a social process have provided the basis for a pedagogy which promotes joint productive activity which occurs when experts and novices engage in activities together and have the opportunity to talk about their work (Tharp and Gallimore, 1988). Clodagh, as a newcomer in this classroom, had both child and adult allies who eased her access to participation and as the episode of the tadpoles continued, it is clear that Clodagh is afforded further scaffolding and develops an increasingly powerful identity as a central player in her classroom activities. The children, the teacher and the SNA had earlier collected water from the stream and they were going to change the tadpoles' water. Throughout the observation the Junior and Senior Infants were gathered around the table with the bowl of tadpoles, the bowl of fresh water and one net laid out before them. As there was only one net the children took turns to catch the tadpoles. Heather, a pupil from Second Class who had been appointed to help with proceedings, took the first turn and she caught four tadpoles. Clodagh aligned herself alongside the Senior Infant girls in order to secure her turn as quickly as possible. When Clodagh tried to catch the tadpoles with a net she realised it was not very easy. She remarked to her teacher when she came to check on progress 'Heather got four', admiring the older girl's skill. Clodagh did not catch a tadpole. However, Jane then asked Clodagh to hold the net thus enabling her to maintain participation. The older girl Heather helped her keep it steady and Clodagh admired the tadpoles as they were transferred to another container. The teacher then asked the Infants to go to get the fresh water but Clodagh had already gone. Jane remarked how clever Clodagh was when she came back with the fresh water and put the tadpoles into it. Here, Clodagh demonstrates a sense of 'agency'; her capacity to understand and act upon her world. From this perspective she is seen as an active agent who seeks to give meaning to her life, to construct her own activity, in her own time and in her own space (Qvortrup *et al.*, 1994).

How Jane interacted with Clodagh clearly indicates the affording of a potential for agency to the learner. Jane actively engaged Clodagh in the various tasks and activities as they unfolded and therefore the levels of agency afforded to her were very high. Jane positioned herself as someone who was ready to engage in spontaneous instances of conferencing, scaffolding and encouragement giving, demonstrating that she understood that the children offered alternative rather than inferior ways of knowing (Mac Naughton, 2003). Tharp and Gallimore, (1988) suggest that learning is enriched when teachers make instruction meaningful by connecting it to the child's own experiences and interests and the foundation of this kind of pedagogy is dialogic implemented through exchange and discussion in 'instructional conversations', examples of which were seen in this classroom. These conversations not only guided the work and the thinking process but also helped Clodagh develop competence as a learner in her classroom community. In contrast, Ann positioned herself at the front of the class correcting and stamping work as the children lined up and waited for approval. Edward did not have either child or adult allies in his classroom. His access to participation was fragile and his sense of agency was often obstructed.

Curriculum: Overload or Potential?

Throughout this study, curriculum enactment in multigrade classrooms continually emerged as a 'site for struggle' (Soler and Miller, 2003, p. 57). Teachers revealed that the main tension they face associated with curriculum was that in teaching a variety of age groups there is an added curriculum overload. Respondents to the questionnaire reported that they had insufficient time to fully implement curriculum subjects or to address all of the objectives within each subject area of the curriculum. Questionnaire responses showed that 82% (n=116) of teachers were concerned about the overloaded curriculum which exists currently. This finding is consistent with other research on multigrade classes which showed that teachers regarded the demands of the revised primary school curriculum as too great for multigrade classes (INTO, 2003; Mulryan-Kyne, 2004).

Teachers in the case study schools often referred to time pressures and appeared frustrated as evidenced below:

It is incredibly difficult to cover entire curriculum with four classes. Junior Infants get very little time doing PE, Art, Music and SESE. Ninety percent of my time spent on English, Maths. I hate the way I cannot give them more of my time. As well as that I have Communion to organise which takes a lot of my time from their learning.

The curriculum is overloaded and it is difficult to find time to allow children to follow their own interests

Teaching Junior Infants is not satisfying when the pressure of fulfilling the curriculum for the other 3 classes takes over. Having taught in single and multigrade classes, I feel they don't get the start they need.

While it would seem from the introduction to the Primary School Curriculum (1999) that each of the eleven curriculum subjects is afforded equal status, the curriculum does note that 'the particular educational goals associated with literacy and numeracy are a priority of the curriculum' (Introduction Primary School Curriculum, 1999, p. 26). The suggested minimum weekly time framework for all curriculum subjects prioritises literacy and numeracy while this prioritisation is further highlighted in the Literacy and Numeracy for Learning and Life Strategy (DES, 2011). What I observed in Mathematics lessons throughout the study was that teachers were more likely to work narrowly within the syllabus laid out so generally each grade was taught separately for Mathematics and there was little opportunity for co-operative group work and use of manipulatives (Mason and Good, 1996). Therefore, it is particularly interesting to highlight analysis of Mathematics lessons in order to contrast different approaches. These particular examples are chosen because they demonstrate how curriculum enactment is underpinned by different visions of childhood.

Orla's approach to the pedagogical dilemma is to acknowledge the value of diversity in the setting. This vignette depicting Orla's Maths lesson on the topic of 'Measuring Lines' provides a brief portrait of integration playing out in the classroom.

Measuring lines
All the children begin with a general activity on length describing items as long and short and comparing 'longer than' and 'shorter than'. On the previous occasions children had developed the idea of measuring with non-standard materials. For example, they had cut out hand spans and laid them across the table and then the Infants had counted them to see how long the table measured. Today, the Infants are paired with a pupil from First or Second Class and they are measuring lines with a ruler. Orla, the class teacher has introduced them to the idea of a centimeter and how to measure with a ruler. Each pair of children has a sheet with some lines drawn on it, a ruler and some centimeter cubes. Each child has to estimate the length of the lines first and discuss the estimations with the class. The younger children use

the cubes to measure while the older children use the rulers. Finally, with questions such as 'Who estimated the most?' or 'How far out were you?' the teacher uses the estimates of the measurements to develop a sense of number with the infants.

In the lesson, there were no worksheets or workbooks for the children to use and none of the children needed to be reminded to stay on task and complete their work. The pedagogy used was in complete contrast to the teacher-led practices privileged in the Inspectors WSE and WSE-MLL reports (DES, 2013, 2014). Skills from each of the curricular grades were taught, practised and reinforced through engaging and age-appropriate activities. Orla as a responsive teacher acknowledged the understanding and perspectives of each age-group in the classroom as well as attending to the development of higher-order cognitive skills. Her knowledge of curricular material allowed her to select material that included perspectives of different groups, enabling her to build on different pupils' interests while encouraging older pupils with more sophisticated academic work. Orla selected the material in light of her knowledge of children's zone of proximal development in the area.

Strategies such as these, which convey respect for pupils, show that Orla holds affirming views of pupils of all age-groups believing she can and should bring about change to make school more equitable. The guidance of curriculum documents is always subject to interpretation and it is through this process of interpretation that Orla, as a competent and confident practitioner, is able to successfully implement the curriculum by reflecting on her own implicit values and understanding of the principles of early childhood education. The basis for effective curriculum implementation in this settling was that Orla is critically conscious of the necessity to make adjustments in her own practice and in the activities she has designed for the children's learning.

Alexander (2009) suggests that curriculum is best viewed as a 'process of metamorphosis' beginning with the published statutory requirements and ending in the understanding a pupil acquires as a result of classroom activities. The metamorphosis is best viewed as a series of 'translations, transpositions and transformations' a set of shifts from specification to transaction (Alexander, 2009, p. 8). The real change, the transformation comes when the curriculum changes from document into action and the degree to which a teacher remains loyal to state requirements or allows curriculum to emerge in the classroom varies from one subject

to another. The notion of 'pedagogical multiplicity' (Goldstein, 2007, p. 396) is reflected in Orla's approach where she frames her practice within the widest range of practices and selects the tools that best fit the demands of the context. As Orla embraced multiplicity and put it at the centre of her description of multigrade teaching, it transformed the central theme of her teaching experience from struggle and conflict to potential and possibility. There is evidence also that curriculum differentiation matters greatly for pupil achievement and that at any given achievement level students who are exposed to more challenging curriculum or 'tracked up' learn more than similar ability pupils who are 'tracked down' - in other words exposed to a less demanding curriculum (Hallinan *et al*., 2003).

Class Size and Class Composition.

There has been a vigorous debate both in this country and beyond about the educational effects of class size differences and whether or not they impact on pupils' academic progress (e.g. Blatchford *et al.,* 2003). Of relevance to this study is that there is some agreement that class size effects are most notable in the case of the youngest children in the school and in the first years after school entry (Blatchford et al., 2002a). My study findings from the nationwide questionnaire survey indicated that for 62%, (n=88) of respondents, the presence of large number of pupils in the classroom was a significant challenge. On my visits to schools it was obvious to me that there was far greater potential in smaller classes for more teaching support and focused interactions. The overall professional judgment of teachers in the case study schools was also that smaller classes allow more effective and flexible teaching and the potential for more effective learning. Comments from the questionnaire survey further support this evidence:

> S*maller numbers allow for more hands on teaching, integrated and independent learning. It allows for projects to be done that could not be tackled in larger groups. Junior Infants require constant, 100% attention from the teacher. Curriculum requirements need to be constantly monitored and if class numbers are low Junior Infants can thrive, if class numbers are high juniors education can suffer*
>
> *Smaller numbers in a class group much easier to spot problems*
>
> *Due to small numbers easier to keep colleagues up to date with children's progress*

The class size varied considerably across the eight case study schools. The concept of class size is not straightforward and clearer contrast can be drawn when exploring a comparison of the class sizes of the two-teacher schools as in Table 6.1 below. Two-teacher schools were chosen for this comparison because the teacher will have the greatest number of grades in the classroom (4) and offer the best possibility for exploring diversity. The most notable feature of this comparison is that the two schools with the biggest class sizes have the lowest number of adults in the classroom. This was directly the opposite of what was found in Blatchford *et al.*'s (2001) study where the number of adults increased with the number of class groupings

Table 6.1: Class size in two-teacher multigrade case study schools with four grades in each classroom

Class Size			
Case School	No. of pupils in classroom	No. of adults present in the room	No. of pupils in Junior Infants
*Abbeytrasna NS	11	2/3	2
Scoil Eirne	12	2/3	2
Cashelbeag NS	24	2	4
Gortglas NS	24	1	8
*Drumleathan NS	30	1/2	3

The initial descriptions written in my field notes capture the dynamics of two of these communities, Abbeytrasna NS and Drumleathan NS (the smallest and the largest class size in the study) and demonstrate how the teachers' approaches differed inherently from one another. Maureen, the teacher in Drumleathan NS, was very concerned with the large class of pupils she had. She noted they were 'The largest class for years, definitely too large in a four class situation. I seem to be all the time struggling to get their attention or keep their attention'. These comments echo findings from Blatchford *et al.*, (2003) who report that in large classes children are more likely to become distracted and show off-task behaviour with peers. Maureen spent a good portion of her time monitoring behaviour and her interactions were often managerial in nature and she was aware of the effect of this on the Junior Infants. She thought it was particularly intimidating for younger children when they began school to be part of a very large group. In contrast, Orla the teacher in Abbeytrasna NS, with two Junior Infants in a classroom of eleven pupils, was able to stay with the group of Junior Infant children for much longer sessions. The children received sustained attention and Orla was able to offer them immediate feedback. Task allocation and preparation

were deliberate, responsive, and individualized. Orla commented that 'Small numbers ensure that I can get to know the child really well and come to understand how they learn best.' These interactions were also common to what Blatchford *et al*. (2002b) found in small classes in their study.

The vignette below shows how Orla can give time and attention to Jim within a whole class art activity. Each of the pupils is making a shape picture while sharing materials placed in the centre of the table. The art activity is characterized by 'mutual structuring of participation' (Rogoff, 2003, p. 287) between Orla and Jim.

Jim (Junior Infants): I like firemans.
Teacher: Firemen. Do you like Fireman Sam? What shapes would you like to use? You could use triangles.
J: I need wheels.
Tr: What kind of shapes do you need?
J: Rectangles.
T: Where do you see rectangles? (Pauses) Where do put rectangles do you think? The teacher draws a rectangle. That's a rec…
J: Rectangle.
Jim begins to draw a triangle.
T: Are you going to make a triangle out of this?
J: It says go this way.
T: Well you can make your own shape. You don't have to do it like that.
J: What about wheels?
T: I will let you draw wheels. How many wheels? What will we draw up here for a cab?
J: It's like Bob the builder. I don't know how to make a ladder.
T: Sure you do. When the ruler is free we'll do it together. Why do we need a ladder?
J: If there is a fire on the roof.
T: What colour would you like for background sheet?
J: Am I allowed the black one? Did that come out really good?
Teacher: Are you delighted with it?

As discussed in the case study of Abbeytrasna NS in Chapter Five, this example of a guided participation activity demonstrates how Orla took on a role which required ongoing balancing between taking the lead from Jim and including his contributions in furthering the curricular goals she had in mind. There were several distinguishing aspects characterised in this episode which contributed to its success in encouraging Jim's involvement and providing him with a challenging and positive learning experience. These were affirmation and congruence, sharing of control and a blended mix of support and challenge (Payler, 2007). Orla validated Jim's replies, viewpoints, interpretations and actions and she complemented her own responses with an encouraging tone of voice, gestures and facial expression. Orla shared control with

Jim as she proposed suggestions but did not force him to agree. Jim was afforded agency when he offered his own interpretation and was free to include his own agenda. Orla's pedagogical interactions were sprinkled with these types of jointly constructed conversations which blended both support and challenge for the children. In busy classrooms pupils' perspectives can be missed if they are seen as irrelevant instead of acting as potential sites of meaning making.

In smaller classes children interact more with their teachers but may become over-reliant on the teacher and look for her direction, while in larger classes (over 20) children may be more likely to interact independently with each other (Blatchford *et al.* 2002b). Sometimes Orla felt that Jim was over-protected in such a small class: Jim received lots of attention because he was young and not as academically able as Rachel, the other Junior Infant. Orla comments that 'Rachel is left to her own devices and sometimes I think she's a bit neglected, for want of a better word. In a bigger class maybe Jim would have been forced to interact more with other children'. Teachers also felt that if there were too few children in a class, children could suffer more if they fell out because they may not have another friend to play with. However, none of the parents interviewed shared this concern.

The ratio of younger to older children in the class and the balance of grades within overall classroom affected the teachers' approach to pedagogy. One of the dilemmas for all teachers in the case study schools was to establish and sustain practices that are responsive to the needs of the younger pupils and to the requirements of the older children (Aubrey, 2002; Britt *et al*, 2003). The teachers' practices portrayed across the eight case study schools revealed the value of pedagogical multiplicity where teachers had access to a variety of instructional approaches and chose among them (Goldstein, 2007). In Section C of the questionnaire study concerning teacher strategies in use in multigrade classes, Item A was a general question dealing with whether teachers considered it pedagogically challenging in a multigrade class to implement teaching strategies which particularly suited the Junior Infants. In the survey, over half of the teachers in multigrade settings (55%, n=78) indicated that they considered it difficult to implement a range of teaching strategies designed to meet the needs of Junior Infant pupils. Thus, teachers struggle to find ways to reflect a connection with early childhood education practices. This situation poses many challenges but also creates opportunities for innovation, growth and change.

Although there is general concern expressed by commentators of the growing formalisation across early years education (Hatch 2002a), the impact of such academic top-down pressure may be more acutely felt in multigrade classes where there are large numbers of older children with smaller numbers of younger children. In order to understand this complex situation more deeply, I would like to directly contrast the experience of classroom practice in Cashelbeag NS with Gortglas NS. In Cashelbeag NS there were a large number of children in First Class (13) and this quote from Edel, the class teacher shows how the daily schedule is balanced in favour of the requirements of the older children:

> *When you have big number in the older class it's like you have to be quicker getting through things. There are lots of corrections too which take time. Also if there's an interruption or you lose time for some reason, you must go back and catch up. Sometimes I feel I could be all morning at Maths for instance. There just seems to be less time now to do the more creative, hands on stuff*

Edel's flexibility to facilitate a less structured day is limited and she also touches on the curricular constraints such an imbalance causes. Edel positioned herself as a 'juggler' having to compromise and negotiate a middle ground where she could teach everyone.

Contrast this with the situation in Gortglas NS where there were also twenty four children. However, the number of pupils in the Infant classes totalled sixteen (8 Junior Infants and 8 Senior Infants) leaving eight pupils between the First and Second Classes. My observations and conversations with Deirdre, the class teacher illustrated that although she also had to 'squeeze things in with four classes', the focus of her practice was more naturally on the younger children.

'You need workbooks to keep Junior Infants busy'

Another factor which may contribute to curriculum overload is the use of textbooks and workbooks in the classroom. Data from the case studies has demonstrated that the workbook was a tool which was frequently used to support classroom learning. Teachers noted that children could practise what they had been taught. Workbooks were also helpful as a source of independent work which children could complete without help allowing the teacher to teach the other groups in the class.

Textbooks were also viewed as an aid to classroom planning as teachers negotiated the challenge of planning topics across subjects and grade levels. Deirdre

in the Gortglas NS argued that it was not feasible for her to have such a wide ranging and flexible knowledge of the curriculum across all the grades and so she relied on the textbooks to ensure that the curriculum was taught. She explains in the extract below:

> *The textbook gives you an idea of the work you have to cover. It lets you know if you are on schedule for the week or the month or the term or whatever. I think the workbooks have improved now and they are more helpful for planning with the objectives printed on the bottom of the page. You can see with the textbook how far you have come and what else needs to be done.*

There may be a tendency, in cases where the teacher follows a textbook closely for planning, that it is the workbook which dictates what is to be taught and when. This concern was highlighted in an evaluation of the curriculum carried out by the Inspectorate of the Department of Education and Skills (2005) which noted that textbooks 'exerted a dominant influence on teaching and learning in a significant number of classrooms' (DES, 2005, p. 49). Deirdre's comments may also be the basis for concern noted by Inspectors in WSE and WSE-MLL Reports where over reliance on textbooks was thought to reduce teachers' flexibility in relation to planning (DES, 2013, 2014). In contrast, Orla the teacher in Abbeytrasna NS talked about the change reducing textbooks made on her practice as she became more experienced with teaching in multigrade classes.

> *Before, we used to do every page of the workbooks. I used to feel guilty because parents bought these books and I felt an onus to finish them entirely, otherwise parents weren't getting good value for money. I've cut way back on workbooks since we got the Interactive Whiteboard which is great.*

This statement by a teacher reveals the dilemma of prioritising 'doing the workbook' above other pedagogical activities. Echoing the findings of Dunphy (2007, 2009), Maureen the teacher in Drumleathan NS also noted that even when textbooks were not sufficiently challenging and often contained activities that didn't support children's learning; they were to be completed as this ensured the Junior Infants were occupied.

> *M: The workbooks are fine but some of them can have lots of colouring in them. The pictures can be tiny too and very detailed. Sometimes I feel sorry for children if they don't like colouring because some days they spend a lot of time doing it. But you do need workbooks to keep the Junior Infants busy.*

The phrase 'keep the Junior Infants busy' can be read in several ways. It suggests that the Junior Infants engage in independent work possibly while the teacher is teaching another group. It must be acknowledged that Junior Infant pupils do need

to be able to work without the direct supervision of the teacher and this allowed them a certain agency. However, it may also refer to how teachers positioned the Junior Infants and whether they were being side-lined while teachers did more important things.

'I think I should give more time to a play-based approach'

With the publication of Aistear: the Early Childhood Curriculum Framework (NCCA, 2009) educational policies in Ireland have been moving towards a play-based approach to teaching and learning in the early years of school. For some teachers in this research study there were wide ranging dissonances between the kind of practice teachers felt compelled to enact in multigrade settings and their beliefs and about what early childhood practice should be. This dissonance is aptly expressed by Maureen in the following interview extract:

> *I have a keen interest in early childhood and in teaching the younger classes. I've done it all my life. We had great training for teaching infants and that's all coming back now. But, listen, the restrictions in a multiclass setting make it a real headache. Really when you look at the infant day there is little opportunity to explore learning experiences with them. Children miss out on the benefits of active and varied infant programme when they are in a multiclass situation. I really try to and I think I should give more time to a play based approach, holistic learning, you know in small groups.*

The Junior Infant pupils in Maureen's class acknowledge that there is an attempt made to provide opportunities for them to play. One of the striking features of Maureen's classroom in Drumleathan NS is the very large classroom which incorporates a play corner for the Junior Infants. Kate, one of the pupils described the area as the 'nicest place in the whole school' which is reserved especially for them because when 'Miss rings the bell only we can go in there!' Although Maureen does decide when the Junior Infants can access the play area, my observations suggested they used the area very frequently. There were also a variety of play resources available in this play corner which the children used for self-initiated activities. This practice was in contrast to all the other case study classrooms, where, if there were play corners, they were restricted in use.

International research evidence also indicates that the actual implementation of play in practice can be highly problematic (Bennet *et al.* 1997; BERA, 2003; Wood 2013) with constraints such as provision, adults' roles in play and parental expectations for more formal activities among those most commonly suggested. In the

questionnaire study responses, considerable differences were found among teachers in the ways in which they saw the possibilities for implementation of play-based learning activities. Whereas 46% (n=65) of respondents disagreed or strongly disagreed with Section A: Item A which stated that opportunities for play are limited in a multigrade class, almost the same number of respondents 50% (n=71) were in agreement with this statement.

Some of the teachers in the case study schools referred to 'noise and movement which distracts the older children' being directly linked to their limited potential to support children's learning through play. The need for teachers to maintain quiet and order in their multigrade classes then may account in some way for the prevalence of predominantly formal contexts in the multigrade classes visited with little opportunity for complex play. The experiences of children lend further support to the notion that remaining silent while attending to your own activities is important as Sarah and Emma (pupils of Ballyglen NS) explain in the following extract:

I: So that's your teacher is it? And what does she do with you on Mondays?
S: Ehm she works with First class and we work by ourselves...
I: Oh yeah.
S: We are very quiet colouring in.
I: Oh right when she's working.
E: It's important to be quiet. Because we have to.
I: Why?
E: Or we get a yellow card.
I: Did you ever get a yellow card?
E: I did.
I: What did you do? Why did you get the yellow card?
E: Can't remember now.

This finding was corroborated in the questionnaire study where agreement with Section A: Item I which stated 'Some play activities are not possible in multigrade classes as noise levels would impede older classes' was high at 69% (n=98). Given current government policy to increase the size of classes in small schools (DES, 2012), it is likely that teachers of Junior Infants in multigrade classes will continue to be faced with large pupil:teacher ratios which may further compromise the provision of appropriate contexts for children's learning and development.

'Brostaigí oraibh': Beating the Clock

There is a giant red sand timer in Kildubh NS which is placed in front of the children at lunch time. It takes five minutes for the sand to slip through and this is the

time allocated to the children to eat their lunch. The sand timer seems ominous and acts here as a metaphor for how teachers are trying to beat the clock. During my observations it often appeared that from early morning teachers and children had been thrown on to a perpetual roller-coaster, their journey taking them through a myriad of activities. Concerns about time-management are shared by teachers of both single and multigrade classes and in curricular reviews (NCCA 2005, 2008) teachers and principals have identified *time* as one of their greatest challenges in implementing curriculum. A significant majority of practitioners in the questionnaire study indicated that insufficient time was a major frustration for them. Teachers in the case study schools also speak often about the lack of time. There is a pervasive feeling about simply not having enough time to get things done in these busy classroom and that children are 'rushed through'. In this extract one of the questionnaire respondents explains the impact of reduced time:

> *Teaching Junior Infants in a multigrade is extremely demanding and frustrating from a time point of view. The time you can actually give is limited and there is little or hardly any for the weak child. To make matters worse there are constant interruptions and requests for clarifications and all that extra time given to explanation takes time from infants. During the day I* **neve**r *sit down, all admin etc has to wait, even corrections. We go from one thing to the next, they should have my full attention all day but they don't.*

Other teachers report similar frustrations:

> *Junior Infants get least time spent with them; these kids receive a minute amount of time specific to their level in the day.*

> *Pressure on time I would say is one of the greatest disadvantages in teaching in a multigrade class.*

This sense of rushing was also very prevalent in Ballyglen NS where each morning the whole class was involved in 'Literacy Hour'. During this lesson, there were five adults in the room and each taught a small group of children for approximately twelve minutes. When the buzzer rang, it was time for the adult to move to the next group and for the children to finish each activity. At times the children were definitely rushed and could not finish their activity. During my observations I noted Emma, a pupil in Junior Infants, try to physically pull her sheet back from the teacher such was her desire to continue working on. Her exasperation was evident later when she told me that she 'hates it when she can't finish her colouring.'

Teachers from the case study schools identified a pressure to prioritise time given to numeracy, literacy and more formal learning experiences. They felt this was at the expense of time spent with Junior Infants active learning. Consequently some teachers were mindful that they did not appear to value the learning experiences of the younger children. In particular, data from the questionnaire study suggests that a significant majority of teachers (70%, n= 95) didn't have time to play with children. Maureen expands on this when she reported:

> *M: I never have enough time to work with the four groups and to make time to work with individual children after that. What's more is that there is not enough time for structured play or free play and more junior infant based activities. Most activities are geared to older children and tailored to be made suitable for younger children.*

The evidence from these comments suggests that there are unreasonable demands upon teachers of multigrade classes and that it is extremely challenging to value and honour the principles of early years teaching and learning in the early years in multigrade settings. It also echoes the findings of research which highlight the difficulties surrounding the implementation of an appropriate curriculum in the first year of the primary school (Adams *et al.,* 2004).

Despite these concerns, it was also evident that some teachers were determined to provide more time for the younger children. For example Orla in Abbeytrasna NS had deliberately made attempts to reduce interruptions when she was working with Junior Infants. In interviews the children explained a system of 'Traffic Lights' in operation in the classroom whereby if the 'pointer was on red' the teacher was 'busy' but when the pointer was on green she was available to help. Orla often put the pointer on red when interacting with the Junior Infants which showed that this time was 'special for the juniors'.

In contrast, the data from observations show that a sense of urgency is not always shared by the children. As an example of how a child established agency in a busy, time-poor classroom, I can refer to observations of how a girl Sheila coped with working independently on written tasks. During my observations, I noted that she was always last in her class to begin a task assigned by the teacher. She frequently exhibited avoidance behaviour, for example, she would spend time finding her textbook, organising her materials, going to the bathroom etc. until the teacher noticed her. When the teacher addressed her individually, she would drift around appearing to get started but engage in further off-task behaviour once the teacher had moved on.

When Sheila returned to the Junior Infant group she negotiated the help of her peers in completing her tasks. In essence, she found alternative ways of meeting the teacher's expectations for Junior Infants. And more often than not, she received positive feedback from the teacher. The example shows how Sheila established agency in a creative and strategic manner in the classroom while also pushing out the boundaries of classroom norms in these instances.

Conclusion: Theme One

The aim of this theme was to provide insight into the social construction of participation of Junior Infants in the communities of practice which were their multigrade classrooms. Rogoff 's (1995) metaphor of apprenticeship is employed as a lens to investigate the nature of participation, as experienced members apprentice newer Junior Infant members into expanded active roles. Instances of guided participation, the metaphor Rogoff (1995) uses to describe the interpersonal plane, are also highlighted to explore further the process of mutual involvement of Junior Infants with their teachers.

My findings in this theme demonstrate the powerful role the teacher played in shaping interactions and influencing learning opportunities through those interactions Drawing on both the findings from the nationwide questionnaire survey and the classroom observations I further developed the picture of the multigrade classroom as a context replete with complexities. Among the challenges which must be negotiated are curricular constraints, the size and composition of grades within the class, textbook use and time shortage. The more successful instances of teachers' interventions were underpinned by a construct of the Junior Infant pupil in which they had active agency in construction of personal knowledge and a sense of belonging and participation within a learning community. Therefore, what emerges is a learning environment which affords both opportunities and constraints both for teachers who practice there and for Junior Infant children who wish to gain access to the learning there. It is evident from analysis that although decisions made by teachers in the classroom are very practical matters, they are also philosophical matters because they arise from what teachers believe is important for young children to know and experience and how they believe it is best to teach them. In this, the dilemma of choosing how to integrate a commitment to good early years practice and the demands

of teaching older children was a significant issue for teachers in multigrade classes (Aubrey, 2004; Britt *et al.*, 2003).

6.3 Theme Two: Identity and Belonging: Belonging and Identity?

This theme brings the focus on examining the particular identity constructions of the pupil participants involved in this study. I employ the elements of Wenger's (1998) formulation of identity as outlined in Chapter 2 to explore the children's identity constructions and the process of their making. Wenger (1998) conceptualises learning as an aspect of identity and identity as a result of learning. Learning and identity have to do with shifting relationships to people and objects in the multigrade setting and involve membership in communities of practice which exist there. In this theme, I draw on Wenger's (1998) theory interrogating the data in light of his concept of 'trajectories of participation' to clarify that not every child is a part of the community of practice in the same way and to explicate how their engagement, participation and membership may differ. In the context of community of practice the term 'trajectory' signifies a path of continuous movement 'one that has a momentum all of its own in addition to a field of influences' (Wenger, 1998, p.154) with two types of trajectory being particularly salient to this research 'inbound' trajectories and 'peripheral' trajectories. Inbound trajectories involve newcomers "joining the community with the prospect of becoming full participants in its practice" (Wenger, 1998, p. 154). In contrast, peripheral trajectories never lead to full participation - rather individuals on this trajectory stay marginal to the practice over time. Both these trajectories are composed of both learning opportunities and opportunities for the development of identity.

Through the vignettes we see members of the community engaging in meaning-making which grows out of an interweaving of participation and reification. Participation is viewed as directly engaging in the everyday activities of the community whereas reification, the second constituent in meaning making is described as giving concrete form to something that is abstract (Wenger, 2010). Therefore, meaningful learning exists when ideas are jointly understood and enacted in a particular community.

Rogoff's (1998) third plane, the interpersonal plane or participatory appropriation is foregrounded in this theme. Participatory appropriation is a useful

lens by which to examine how children transform their understandings through their own participation in classroom activities and in the process become prepared to engage in subsequent similar activities. As such, Rogoff's planes are integrated into the analysis of activities and events so the relationship between the individual and the social and cultural environment can be more fully conceptualized.

Kate: A Younger Sister on a Peripheral Trajectory.

Kate was one of three pupils, all girls in the largest class of the study in Drumleathan NS. There were thirty pupils in this classroom with only three Junior Infants. All three girls had older siblings at school. Kate had an older brother Ian in second class. Kate was an industrious pupil taking great care with her work. In the small group activities where she worked alongside her classmates she would work methodically and carefully. During whole class sessions, I often observed that she appeared to be anxious and was not at ease when the teacher asked her questions. The only time she spoke in a whole class setting was when asked to do so by the teacher and when she did so she spoke very softly. I often observed her looking to her older brother across the classroom almost for reassurance and in one particular instance she smiled broadly when he was praised by the teacher. For his part, Ian seemed more or less oblivious to his younger sister although I did see him acknowledge her on two occasions. Her mother Anne-Marie felt that a great source of her nervousness was the different relationship she had with her brother in school.

> *A: And I find too that because the others have older brothers and sisters too, they go off and play, now Ian doesn't want to play with Kate because he wanted to play football so that was hard for him, because she kept on trying to follow him around.*
> *I: Yeah yeah.*
> *A: And then all the other girls would be gone off and playing and she'd be on her own and she'd say I didn't play with anyone, I was crying at playtime. That happened quite a bit actually*.

Although sharing similar backgrounds to the other pupils in her grade Kate developed a different identity reflected in the way she participated in the classroom community. Kate struggled to enjoy the classroom experiences which contributed to her identity as a 'nervous, quiet' child and her relatively peripheral position within her own grade group. In addition, although well intentioned, the teacher's comments regarding Kate (e.g. 'give her a chance now, she's only a Junior') seemed to help confirm Kate's status as someone with less legitimacy. As the year progressed Kate

tried to counteract her relatively marginal membership by interacting with the teacher on an individual basis and she would venture alone up to Maureen if Maureen was sitting at her desk to share some news or to show her work. By doing so, Kate gained the opportunity to communicate her competence which helped her to establish some level of legitimacy as a class member which seemed to be evidence of the beginnings of transformation of participation on Kate's part (Rogoff, 2003)

As indicated in the first theme, the older siblings in this study provided a range of support to help their younger siblings navigate the transition to school. Kate expected to be able to draw on the relationship she had established with her brother Ian at home. She needed a bridge between home and school both as a support in negotiating her experience in a very large class and as a protection against loneliness. However, Ian's practice of separating himself had the effect of reducing the support Kate craved. Ian was engaged in construction of his own identity as a Second Class pupil and did not wish to position himself in the role of carer of his younger sister in school. Ian's separation from Kate was painful for her and caused her confusion.

When comparing the findings of the nationwide questionnaire study with an analysis of Kate's experiences, they would not seem to be typical of what teachers of multigrade classes would expect to be the case. A significant majority of respondents of the questionnaire (76%, n= 107) agreed that children with older siblings integrate more easily in multigrade classroom settings. This finding is also consistent with that of Mulryan-Kyne's (2004) who asserts that younger children have an added sense of security when they share their classroom with their older siblings.

Learners' identities have definite and observable effects on what they can and cannot do in classrooms, what kinds of positions as legitimate peripheral participants they can occupy and therefore how much they can 'learn' (Holland *et al.,* 1998). This was especially true of Kate who, as the year progressed, remained on a peripheral trajectory. Her mother noticed deterioration in her work.

> *A: The older ones kind of took them under their wing. If Kate hasn't a friend to play with, then Big Linda will come and try to find her someone to play with. But Kate's quite a shy child and she can be quite anxious and I think she's gotten more anxious towards the end of the year, like she's biting her nails now. She never used to do that and it seems to be a tension thing and even just kind of saying, when she comes in here she's very scared a lot and she never used to be that way. I think her work is suffering a bit too. But I'm trying to work out why that's happened. She doesn't really want to come to school.*

Although Maureen the teacher did not agree wholeheartedly, believing she was 'keeping up with her classmates but had the potential to achieve more'.

Observing Kate in her community of practice highlights her membership in different communities simultaneously and allows us to see the different ways in which her identity is constructed in relation to that community. One of her own peers in the Junior Infant Class, Linda, also attempted to restrict Kate's participation in small group activities making her less powerful and more isolated in her community. For example, when Linda collected or distributed the workbooks or copies, she would put Kate's to the bottom of the pile and on another occasion while the girls were chatting during a Maths activity, I heard Linda arranging to play with Sheila at break-time seeming to deliberately leave Kate out.

In the following year, her younger sister was due to begin primary school and Ian would move on to the next room. Kate would then be in the position of 'big sister' and have an opportunity to try a new strategy as a more central player in the class. In her comments below Kate's mother hopes that her experience of her first year of school will not impact negatively on how her relationship with her younger sister develops.

> A*: The downside to that now is Emily coming in. She's going to be really honing in on Kate next year and I wonder, there's only a year between them anyway age wise and I need her to make her own friends too and she is going to be tied onto Kate and Kate is quite a shy child and very caring child as it is, and she needs to be able to have her own friends. So it's not that I want them all separate, but I don't want the two of them just going off together.*

Kate's experience as a younger sibling meant she was on a trajectory that did not lead to full participation but yet it did provide her access to the community and its practice and her engagement with which served to shape Kate's sense of identity. This underlines again that identity is an ever-developing repertoire of available characteristics, viewpoints and ways of being that are both learned and recruited through participation in discourses.

Emma: A 'great little reader' on an Inbound Trajectory.

Literacy was a high priority for Bridget, the class teacher in Ballyglen NS and indeed Ballygeln NS as a whole. The subject helped provide a strong link between the

social and the academic. The classroom was filled with a variety of literacy materials including sets of graded readers, posters on the wall and a dedicated writing area with a computer and a variety of writing material. Pride of place in the classroom was given to the extensive reading corner. Here, seated on beanbags or cushions, the children were often observed reading and enjoying a wide range of books. The most regular event of the day was the 'Literacy Hour' where children had an opportunity to engage in a variety of literacy based activities in small mixed age groups.

Quail and Smith's (2014) findings indicate that younger girls in multigrade classes may suffer some self-esteem issues when they cannot achieve the same academic standards as the older children. However, findings in my study do not corroborate with this. For example, Emma a Junior Infant pupil engaged in the multigrade class and seemed to construct a very positive identity as a reader where she acquired the behaviours, attitudes, resources and most of all the ways of engaging needed to recognizably display the identity of a successful pupil. Research also suggests that a strong link exists between social and academic performance and that being in a strong classroom community affects academic performance. Battisch *et al.*, (1991) suggest that students like Emma who experience this high level sense of community, also demonstrate greater academic motivation and a stronger liking for school. In particular, Emma has built a strong sense of being 'literate' as she participated in literacy events as part of school. She had a tacit understanding of what it means to be knowledgeable about literacy events in her classroom and what behaviours were valued as well as what it means to be a competent reader. She positioned herself as a 'knower', confidently proclaiming to me in the interview that she was 'the best reader in the whole class!' In her literacy activities, Emma was involved in a participatory appropriation process. She established a shared focus on a bank of literacy activities with her Junior Infant peers in which she has participated and to which she brings her learning as a lived history. For example, she paid attention to learning all the phonemes of the English language which she learned by singing along with her peers to the 'Jolly Phonics' CD. I observed Emma making use of her phonic knowledge to decode words in the graded class reader thus demonstrating that she is involved in a process of transformation from non-reader to reader. During the year, I observed her visiting the class reading corner where she read along with other children and following the teacher's reading of stories with rapt attention. This trajectory shapes her view of herself and helps her to be recognized by

others as a person who belongs to and can be successful in this sort of community. Bridget confirmed Emma's strong literate identity. In her opinion, Emma was 'a great little reader, who always puts her hand up to predict in a story' and 'she can sing along with the 'Jolly Phonics CD' and knows all the sounds of the alphabet letters'. Indeed Emma was a model pupil. She watched Bridget carefully, was the first to organise her books and completed her written tasks with enthusiasm.

Emma's mother, Julianna is a newcomer parent who felt that it was important for children 'to get on with it' at school and in the extract below she describes Emma's general enthusiasm for school.

> *J: Well Emma, it's her birthday today and she opened the presents and I said you can play with them later and she said 'ok come on let's go to school'. Another child would say 'oh I don't want to go to school; I want to play with toys'.*

Education was a priority at home so Emma learned to 'finish her homework before she had any television'. Julianna was very satisfied with Emma's progress noting, for example that, Emma would correct her if she mispronounced a word. In a further extract from the same interview below she shows Emma's enthusiasm for learning letter sounds which is not shared by all children in the class:

> *J: Emma. comes back; she wants to stay in the uniform for a while. Then she goes to her school bag, takes it out and she says this is her homework and she's reading her books. I'm telling you, I'm lucky. And sometimes she drives me mad, she'll do her sounds and ... And especially happens when you are very busy. She could forget about the sound book for two weeks and then she'll be singing it all.*
> *Danielle (Sarah's mother): That must be new?*
> *I: You haven't had the sound book?*
> *J: It's the right way to pronounce or say letters. Like 'I want to have a barbeque with you and you and you' and I'm like 'oh my god, go away from me'.*
> *I: There's a little song you see to go with the letters, yeah.*
> *D: First I heard of it.*

It is interesting to note that one of the other parents at this interview knew nothing of the sound book which might suggest that her child did not engage as enthusiastically as Emma did. Because Emma was on an inbound trajectory, she was willing and chose to participate in the activities that are considered valued literacy events in this community of practice. Emma's literate identity was shaped by school experiences and mediated by her willingness, ability and choice to participate in the literacy community of practice at school. Emma was engaged because she expected to participate fully in school tasks and looked forward to being rewarded for compliance.

Bridget's classroom was a literacy-rich environment with opportunities to participate in a variety of literacy activities and make choices. Bridget and the other adults involved in the Literacy Hour actively constructed Emma's inbound trajectory through the many positive, reinforcing comments they made to her and through the literacy materials they provided and privileged. Emma took all opportunities offered and engaged in each one with the purpose of doing school well and as she participated in literacy activities she, along with Bridget and the other children in the classroom were also engaged in reification producing words, stories and resources which reflected shared experiences around which participation was organised (Wenger, 2010). Furthermore, the data in the study pointed to the reading relationship established around guided participation between Emma and her teacher. The choice of particular books and the regularity of the small group literacy sessions allowed close, nurturing and ultimately pleasurable moments of engagement to be fostered and maintained by the teachers. What emerged from the literacy experiences in this classroom was a strong sense of mutuality of reading and reading practices that provided a context of shared spaces, physical contact, emotional connection, intimacy and an appreciation of the world of others.

Understanding Trajectories of Identity.

In the multigrade schools of this study the identities of pupils are continually negotiated and the idea of a trajectory places the engagement in practice in a temporal context. Each specific situation that is dealt with is understood as being

simultaneously part of a history of certain practice and part of a process of becoming a certain person. The vignettes in this section describe the pupils of Scoil Rathóg and Cashelbeag NS following learning trajectories which are not on fixed paths that can be seen or planned out in advance. Rather, they are in continuous motion where they are making choices about the people they want to become.

Megan, Caoimhe and Hugh (Junior Infants in Scoil Rathóg) explain in the extract below that being on a trajectory is important and they know that improvement in their written work will lead to advancement.

M: You start at this class and then you go all the way to the top class. But not our class.
H: We will move to the yellow chairs and do writing. Then we will move to the red chairs and do harder writing.
I: And what colour chairs do ye have in your class? I must have a look here.

M: White.
I: Ye've got white, haven't ye? And what kind of writing is for white chairs?
C: Jimmy's class is yellow but our ones are white.
M: Oh, easy, easy peasy…it's easy for me anyway!
I: So when will you be moving to yellow seats?
H: Soon.
I: And will you be sad next year when you are in Senior Infants and another class will be the youngest?
M: You know I won't be sad. I rather like being the oldest in the class. Yeah because then you can make up really cool things that everyone in the class must do.

The fact that some teachers deliberately believe it is important to lay out the classroom seating classes separately may explain the children's impressions in this instance (Pratt and Treacy, 1986). There is a sense that this advancement is automatic as they explain how they will move from one colour chair to another but they value this advancement because it means they will have more status as they grow bigger.

For the boys in the Junior Infant class of Cashelbeag NS, their sense of trajectory extended beyond doing their written work. What was important to them was how they could move on to play football on the 'pitch' in the playground. It was a different trajectory which gave the boys an alternative perspective on their participation and identity at school. As detailed in the case study analysis of this school in Chapter 5, the Junior Infant boys often spent their break times trying to join into the football match with the 'biggies'. The school team won an inter-schools blitz at the end of the third term which Ben, one of the Junior Infant boys considered a significant event. Sometimes the younger boys were allowed participate in the 'biggies game' and, on one such occasion, I saw Ben score a goal. Furthermore, much to his delight Ben was on the winning side when the bell rang to signify the end of break time which meant he could continue to bask in his success while lining up to go inside . This playground football match and the goal scoring event were defined both by the engagement opportunity it afforded Ben and also by its location on a trajectory which gives meaning to the identity which he is developing. Ben is jointly involved in a participatory appropriation process establishing shared meanings and making sense of the football game by transforming his actions within it. By scoring the goal Ben changes from ordinary player to one of the heroes of the game. The older boys play a crucial role in orchestrating this situation as a learning opportunity for Ben. The use of voices when they cheered and shouted encouragement, the use of gestures when they raised their fists in triumph played an important part in Ben's interactions and acted as

external actions which Ben drew on in his process of appropriation. The older boys continue to have a dominant role in the game and eventually this may prove to be a constraint as there may be fewer opportunities for Ben to engage freely with the game. Nevertheless, Ben was capable that day of taking advantage of the affordances he was offered. However, it also becomes clear with John's experience of multimembership in this community, explored in the next section of this theme (6.2 Nexus of multimembership), there was no guarantee that these affordances would be continually offered by the older boys. The nature of this 'peripheral form of participation' is fragile, as it may or may not lead to something significant which turns out to be central to Ben's identity.

In this school the football team show the way to a potential, expected and desirable future for Ben. Wenger (1998) terms these 'paradigmatic trajectories' (Wenger, 1998, p. 156) offered by each community of practice as a set of factors to influence the learning of its newcomers. These paradigmatic trajectories are not simply reified milestones such as those provided when children move from one grade to the next or even by communal rituals such as games played during break times. Rather they embody the history of the community through the very participation and identities of the community.

This analysis of Ben's participation in the game of football supports the findings of the nationwide questionnaire in relation to Junior Infants playing with older children. Participants were asked the extent to which Junior Infants engaged in more complex play when playing with older children and whether teachers believed they benefitted from such play experiences. Both of these items had a significant level of acceptance. The statement which suggested that Junior Infant children often engage in more complex play activities when they play with their older classmates, garnered a very high level of agreement among respondents (77%, n=108), while the statement which suggested Junior Infants benefit from the challenge offered by older children in mixed age play received the highest level of acceptance (91%, n=128).

In Scoil Rathóg a very different set of paradigmatic trajectories was offered to the Junior Infants. Scoil Rathóg is located on the outskirts of a small village. There is another primary school also located in the village which the majority of the village children attend. The following interview excerpt is drawn from focus group of parents Cara and Denise where they discuss why they choose to send their children to a

smaller multigrade school rather than the larger village school and in doing so reveal something of the identity of the school.

I: Basically the first question is a little bit of background. How did you make your decision about which school to send your child to?
A: Do you want to go first?
G: Ehm it was just Scoil Rathóg and that's it.
I: Right.
G: Well there is another primary school, but ehm, I just didn't like that school and ehm I think religion came into it as well. And it's such a lovely school.
I: Right you like the feel of it and the... yeah, yeah.
A: My three nieces and a nephew are either in or have been in Scoil Rathóg as well. I had very similar reasons to Denise. The whole thing…just even when I bumped into Edna (school principal) when I was pregnant with Megan, she practically jumped into my arms with excitement that there was a new Church of Ireland baby coming. So even before they were born, they were sort of 'oh they must come to the school'. So just and my husband's cousins' children have gone there as well and it just seems to be an absolutely lovely school.
I: Right.
A: Now if they hadn't gotten in or for whatever reason, now I went to a big Catholic girls' school as I said to you, St. Carmel's, but it's just smaller and nicer and I could just see from the children, we'd go to the odd concert or whatever, you could just see that it was a very good school, they had very good manners, they were well sort of, everything was, there were nicely rounded.

These brief statements by the parents on school choice decisions reveal some very interesting elements about what is valued in this school. From this perspective, this community of practice offers a history to newcomer Junior Infants and their parents chose the promise of being part of that history for their children. The Junior Infants are exposed to many opportunities to engage with this history and to develop as 'nicely rounded' individuals with 'good manners' and this is a very influential factor in shaping the learning of these newcomers. Every day there was a school assembly where they had lessons on being nice and being kind. They had a major school fundraising night for Third World charities and as a school they sponsored children in Africa and kept track of their development. The Junior Infant children Danny, Fionn and Hugh speak almost as if they knew these children personally.

I: Do you remember when Reverend White was in and she was talking about the baby, Jason?
D: He's a baby and he has a problem with his breathing.
F: And his windpipe is squeezed.
I: Is he somebody in the school's baby or what?
H: No. He's someone in Africa s and his windpipe is only that small.
I: In Africa? And what have you got to do with a baby in Africa?
H: We pray for him. We pray for him so he gets better. We get money for him too.

I: Oh and how do you know about him?
D: Because Reverend White knows about him. It's kind of like that tiny hole.
F: Sharing something with Reverend White is fun. She tells us what's wrong with the baby.

The experience on the playground was quite different to the other schools. Junior Infants have access to all areas of the playground and it is common for children of all ages to play mixed-age games. The Junior Infant girls in this classroom discussed how such experiences were largely positive for them and made them feel secure and worthwhile. In this interview transcript Alice, Megan and Jessie show how they engaged with the older children who, as old-timers, offered living examples of possible trajectories.

A*: No. All the boys in this school wouldn't ever, ever laugh at Hugh and Fionn. They think they are just so...*
M: Cool!
A: Funny. And they give them high fives.
I: Oh right.
M: And Lizzie and Hannah are never mean to me and Alice and Caoimhe and Jessie. They are like hugging us and all.
J: Because Lizzie and Hannah are really the bestest people because they help us all the time.
I: Lizzie and Hannah are the best people, are they?
J: Sometimes me and Megan go 'Lizzie and Hannah, Hannah and Lizzie are the best friends ever.'

In Scoil Rathóg the community of practice valued sharing and playing together. The possibility existed for the younger girls to play and interact with the older children in the yard. Certainly, the practices of the older girls in the yard provided common rituals which represented the history and ethos of this particular school. The older girls played with the younger children, they hugged them and gave them 'high fives'. Labels used by the younger pupils to describe the older children, (e.g. never mean) suggest that the older children embodied the values of this school community and it was evident the Junior Infant girls admired them and wanted to emulate them.

The vignettes in this section represent participation and reification as intertwined yet distinct 'lines of memory' (Wenger, 2010). The participation/reification interplay creates a social history in Cashelbeag NS where the younger boys understand from watching and playing the older boys that what matters in their community are the practices of football and match playing. The Junior Infants of Scoil Rathóg learned that characteristics of being nice, caring and friendly help them engage productively with others in the community. Both sets of children have

limited personal histories in school on which to draw in positioning themselves but they pick up on clues from the older children and learn how to alter and extend their understandings of how they should act.

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Nexus of Multimembership.

Wenger (1998) suggested that learning does not just occur within the boundaries of separate communities of practice but that it also occurs between communities as they interact with one another and members move between them. The unique context of a multigrade classroom offered Junior Infants an opportunity to participate in several 'communities' and they had multimembership of the following groups; same age peers at grade level, mixed age small groups, family groups, whole class multigrade classroom and whole school communities. Children engage differently in each of these communities constructing different aspects of themselves and gaining different perspectives. The space in which these memberships overlap is the nexus of multimembership. In a nexus, multiple trajectories become part of one another, whether they clash or reinforce each other. The analysis below explores difficult tasks faced by Megan (Scoil Rathóg) and John (Cashelbeag NS) as each of them negotiates a nexus of multimembership.

Pupils in this study moved from one context to another and in these contexts, they were confronted by difficult questions about who they were. Wenger (1998) uses the term 'reconciliation' in describing this type of identity construction, proposing that there is a need to create a way for various memberships to merge and coexist. Wenger (1998, p.161) refers to reconciliation as 'constantly building bridges-or at least potential bridges-across the landscape of practice' As illustrated below, Megan, a pupil in Scoil Rathóg, appeared to reconcile her identity successfully in a nexus of multimembership whereas John who also attempted to participate in practices of school appeared marginalized. The analysis demonstrates the difficulty, complexity and sometimes the impossibility of reconciliation in the process of weaving a nexus of multimembership.

In her first interview Megan admitted that she found it daunting to begin in the new environment of school. Most of the other children in Junior Infants knew each other well having attended the pre-school attached to their primary school. Megan had not attended pre-school and this made her feel somewhat vulnerable. She reported feeling 'a bit nervous when I came in with my Mum and sister'. However, Megan had

often visited the school when she dropped off her sister so she was familiar with the surroundings. Cara, Megan's mother acknowledged that Paula her older daughter who was in the same classroom as Megan, was a 'great help to Megan in settling her in.' Dockett and Perry (2013) point to the significant role for siblings as friend, playmate and carer in helping their younger siblings navigate the transition to school. Paula, the old-timer and Megan, the newcomer were involved in what Wenger (1998, p. 157) terms a 'generational encounter' and in the process of negotiating trajectories both girls contribute to the history of the classroom practice. Paula, in the Senior Infant grade was already a successful and established member of the community of practice and she helped Megan learn the systems of the classroom, gain knowledge of the routines and gave her emotional support when needed. Paula positioned her younger sister in a way that included her at least in activities with older children.

While Megan may have relied on her sister for support in the initial weeks of school she gradually gained confidence and used her inbound trajectory as younger sister to Paula to negotiate a place for herself working with older children. Her teacher saw her as a highly capable learner not only cognitively but also socially and emotionally. Therefore Megan's particular ability to challenge, negotiate, and participate in social interactions with the older children were in her opinion significant in allowing Megan to forge 'her own way' - in other words a positive identity in her new school community. This comment emphasises the active role that Megan plays in managing her own identity. For example, as shown in the extract for classroom observation of Megan below, her interactions in a mixed-age group Science activity were characterised by her engagement and enjoyment of the activity.

Science experiment: Dancing raisins

> *The class is divided into groups with each group at a table. There are four children, one first class girl (Maisie), two Senior Infant boys (Conan and Darragh) and Megan the sole Junior Infant in this group. Each group has a clear plastic cup and there are some raisins and a small bottle of 7-up on the table. Maisie has a clipboard on which there is a sheet to record by drawing the procedure of the experiment. Conan pours the 7-up into the cup and then Megan attempts to put in the raisins all in one go. Conan corrects her and asks her to put them in one by one. She changes and then they notice that the raisins are 'popping' from the bottom of the cup back up to the top. Maisie starts to draw on the sheet and Megan pops her head over her shoulder to look at what is going on. When the recording is complete Megan asks the others if she can help colour it and she quickly goes to her table to get her colours*

Her experience exemplifies a successful process of reconciliation. When I asked her later about working in mixed-age groups she said it was 'really fun' and she preferred it to working in a group of her own Junior Infant peers. Megan developed a strong sense of what was and was not an acceptable way to represent herself at school and actively sought to conform to these to gain acceptance and approval from her classmates. Megan's experience could be characterised as an example of Rogoff's (1998) participatory appropriation as she has changed through her joint involvement in classroom activities with the older children. The transformation of participation (Rogoff, 2003) was seen to further develop in Megan's experiences outside of the classroom.

During interview Megan shared her joy of the games she played with older children in the school playground and the following extract suggests that she was continually in the process of constructing and reconstructing her identity as playmate.

I: In your class, all children the same age or to be in a class with Seniors and First with the older children like you are now, which would you prefer?
M: I would prefer, I would think what we have now.
I: Right.
M: Because then there is one game and it was really fun and all of us could play because the First class always make up the cool games.
I: How do you play it?
A: Ehm when somebody calls a number...You run and if you and if someone catches you then you call a different number but if you get to the other side then everyone else starts running as well

Megan had a lived experience that involved her participation as a playmate yet it was slightly more difficult for her to negotiate membership within her own grade group and she was frustrated by the difficulty of positioning herself among her classmates. However, Megan seemed to have a strong sense of legitimacy and it is interesting to see how she managed the discontinuity between the two identities. Eventually, it was her experiences as playmate of the older children which helped her position herself more centrally with her peers in the class group. Some of the Junior Infants did not like the Bulldog game as they found it too rough. Megan made up another game based on the dog theme and recruited two of the boys, Danny and Fionn (Junior Infants) to play. In extending the play in such a way, it would appear that Megan constructed an interface between the two communities reflecting her unique way to exert her agency.

D: And we were playing a really funny game.

I: You were playing a really funny game?
F: Yeah, it's called Superdogs and the Mouse Cheese.
I: Right.
F: The mouse is trying to get the cheese and they couldn't get the cheese.
M: Danny and Fionn are my dogs and we are chasing after them going 'we've got no cheese' and then they chase after us going 'cheese please, cheese please'

Superdogs and the Mouse Cheese continued only for a short time. However, it became obvious that as a result of it the three children developed the beginnings of friendship. Danny reported to me in the interview 'that Megan is his friend.' It appeared that Megan was able to draw on the available position as 'fun playmate' and worked this to her advantage. The above shift suggests that Megan created a distinctive nexus of multimembership across the different communities she was part of in the multigrade setting. This nexus reflected her own interpretation of the context, her sense of place within it and who she imagined she could be. Wenger's (1998) community of practice perspective focuses on the influence of context and the role of community in engaging Megan as a 'creator of games'. It is clear that Megan, in the process of moving in and out of the different communities, continued to develop a nexus of multimembership. She wanted to become a part of the community of older children in the classroom but she seemed even more motivated to become part of the community of her own class peers.

It is also possible to interpret how Megan changed her participation as a reflection of Rogoff's (1998) individual plane. This is the most personal process of all the planes, although it takes place in the public and community-related interaction in the playground. Rogoff (1990) attributes the power of past participation to shape present and future interactions and in this instance Megan's learning is not only a transformation of understanding but of action. As Megan participates, she appropriates knowledge, shaping her contributions and actions in observable ways, and expanding her old understandings to accommodate new ones. This stretching work is evident in the shifting participatory moments in which she negotiates understandings and gets things done. Megan also brings a new element into the practice and negotiates with Danny and Fionn to adopt the game. She is as Wenger also making a 'claim to competence' which in this instance is embraced by the community and through this process she becomes further identified with her community and in this Megan's experience contrast sharply with that of Edward in

Kildubh NS. These moments also illustrate how participation and reification do not automatically occur together. Rather as Wenger (2010, p. 2) suggests they happen 'at each moment in the world, we bring them together anew to negotiate and renegotiate the meaning of our experience.'

John's experience of multimembership of communities of practice was somewhat disconnected and incoherent and his work of reconciliation was at times a fragmented and difficult for him. He began school as a younger brother to Gary who at ten years old was in 5th class. John's mother, Tricia reported that he had 'no trouble at all settling in' and she attributed his smooth transition to the fact that he knew the setting well before starting. According to Tricia, John also knew some of the children in Gary's class and their younger brothers whom he would have met at drop-off and collection time. Tricia positions John as a little brother who is content to 'look up' to all older children as he does to his older brother.

T: I'd say he loves having the older children in his room, because he has an older brother. They look up to them. They feel oh they're my bosses now or something.

His mother considered the issue from the perspective of her older son and did not appear to acknowledge her younger son's work of reconciliation towards a nexus of multimembership.

I: And what's that different dynamic, when they are here on their own?

T: Maybe John was hanging onto him too. I don't think he was like but maybe Gary felt that he was.

According to Tricia, John also knew some of the children in Gary's class and their younger brothers whom he would have met at drop-off and collection time. The different practices between home and school proved difficult for John to integrate into an experience which corresponds to a single identity. Tricia's comments point to the possible reasons why difficulties arose for John in establishing his identity here as he moved from being a football player at home to being a football player at school. Outside of school, John had the identity of soccer player with the older boys and he enjoyed a lived experience that involved participation at a different level in that community of practice. His brother's friends who were the older pupils at school seemed to include and accept him in the soccer game. When he meets the same boys in school he doesn't have the same opportunity to play with them. As a result he struggles with moving into this community.

T: Well maybe John was following him or something, I don't know. He didn't say that but he probably was watching out around the yard. And John loves playing soccer and Gary loves playing soccer so maybe he thought he could play with Gary like he does at home or something. I don't know. Well you see the friends that Gary has at school, a lot of them would live near us so they would be at the house you know, so John would just play as normal with them at home as well. I don't know what happens in the yard then. Do they, I don't think they really strictly divide it up and say you have stay in this section now. Maybe sometimes they do and sometimes they don't.

Given the importance of the football game in this school the work of reconciliation is particularly challenging for John who was required to accept an alternative way of engaging in the practice of playing football at school. What makes the situation even more challenging for John is that he is not afforded any real or consistent opportunities to develop joint involvement in the football game. Throughout my visits I was struck by the seemingly random and unpredictable nature of the football game and how the construction of John's identity developed a new meaning as 'player on the margins'. Sometimes the Junior Infant boys were chosen by the older boys to play on their teams. At other times, especially if the school team had a competitive match coming up, the Junior Infant boys did not have access to the game and their requests to play were ignored. The evidence suggests that the Junior Infant boys were denied any real opportunity at appropriating football play, as they were not permitted to take something that belonged to the older boys and make it their own (Wertsch 1998). There were also times when Junior Infant pupils were excluded by the rules of playground as reinforced by one teacher. As a result of this, the Infants were not allowed on the grass and John was on a peripheral trajectory with his work at reconciling a nexus was a constant struggle.

The nexus of multimembership required him to develop competencies in different communities and for John multimembership entailed him dealing with continuing tensions that were not resolved. As such, John was engaged in a constant struggle. John's case shows that pupils are constantly in the process of construction and reconstruction of identity. The following vignette shows John's attempts to carve an identity as Ben's friend. The children were colouring a scene from a church with a stained glass window, candle, crucifix and tabernacle in their 'Alive O' workbook (Religious Education). The children were seated in rows facing the teacher. John was seated in the front of Ben alongside Ava who was not at her table. Ben and John were sharing each others crayons.

J: I'm copying you. Can I have that? (He takes the crayon from Ben and begins to colour the same piece of the picture with the same colour).
B: Stop copying me or I'm not your friend. (John looks again at what Ben has coloured and copies him.)
B: Teacher, John is copying me.
T: No he's not. John, do your own thing.
J: Can I have my yellow back?
Ben won't give him back the colour. John begins to cry.
J: Give it and I'll stop copying you.
T: What's wrong? Come up here. I'll help you. You're not copying him.
Teacher asks what various things in the picture are and writes in the words.

He dismissed his teacher's attempts to distract him and resumes the 'copying' when he returns to his seat. He appeared to lack a sense of his own agency in negotiating membership and at other times seemed not to have been granted legitimacy. John often positioned himself as a victim of circumstance rather than as an empowered individual who was growing in competence. In the extract below he is trying to get Ben's approval by asking him about the colouring and by trying to share a joke about Ava's book.

J: Is my colouring nice Ben?
T: John, turn around and stop arguing
B: I'm not your friend
D: Teacher, John is copying Ben. (John shows his book to Ben)
J: See I'm not copying you. (Ben takes John's crayons.)
J: Hey. You can't take them back there! Are you my friend? I'm not going to play with you at lunchbreak
T: John, turn around and do your work. Ben give the colours back.
(Ava is not at her desk and has not started the colouring. John shows Ava's book to Ben and they giggle.)
J: Look, she hasn't started yet. (Ava reappeared and grabbed her book before sitting down.)

Tricia thinks as long as John has his own friends he is 'happy out'. Throughout the interview she uses phrases such as 'he doesn't seem to mind' 'doesn't let on to take any notice' which seems to suggest that John does not speak about his struggles at home and the work of reconciliation remained invisible to his mother.

For both Megan and John building new trajectories of participation in reconfigured social practices involved a series of small and difficult to discern changes in learners' identities as they entered and took up new positions within these practices. It would seem that Megan's ability to change herself and her environment showed a greater capacity on her part for deliberative action in a setting which offered

greater opportunities to exercise that capacity. In turn, John's seemingly lesser capacity to contribute to his setting connects with a feeling of lack of self confidence. In this way the identities and landscapes of practice offered to both children reflected and shaped each other. As both children engaged in practice they wove power, capacities and dispositions in the process of positioning and repositioning themselves as learners in multigrade settings.

Local-Global Interplay

Although there are common challenges in education systems around the world and what would appear to be increasingly similar educational agendas, regional national and local responses vary. Wenger (1998) suggests that a focus on the global local interplay contributes to a greater understanding of the dynamics of relations between schools and the societies they serve. A dialectic is at work between the global and the local. Understanding this interactive process, and the inherent tensions and contradictions is central to Wenger's (1998) final dimension of identity making in practice.

Firstly, it is important to consider how the word 'global' is conceptualized in this section. Global, has been used to mean 'universal,' in the sense that development is sometimes viewed as occurring in much the same way in any part of the world. Therefore, from this perspective, how development takes place in any one group of human beings adequately explains how development does, or should occur in any part of the world. The term 'global' has also been used in the sense of globalization or the extending of ideas from one part of the world to the rest of the world. Therefore, if there is a certain view of how children learn believed to be best among a certain group of people in one part of the world, then, it makes sense to export conditions likely to allow more people in other parts of the world to mimic the same ways of thinking. These interpretations of the term can be dangerous as they dismiss the idea that culture is so heavily implicated in the developmental process that one has to consider local considerations about what should be viewed as optimal in children's learning. Accounts of the 'normal' developing child fail to account for diversities in young children's lives and the striking variations in how childhood is understood and experienced and how it is applied to individual groups of children.

An important part of the work of any community of practice is, according to Wenger (1998) to create a picture of the broader context in which its practice is

located. In this process, identity construction is always ‘an interplay between local and global’ (Wenger 1998, p. 62).

In several respects, the past two decades were an intensive period of change in school systems in Ireland. There have also been considerable developments in the availability and organisation of early childhood services in this country. This period has not been without its challenges reflecting the political priorities and economic circumstances of the day. Schools are under considerable stress as a result of policy initiatives and the pace of change is often too swift to keep abreast of.

In multigrade schools, this tension between the local and the global is a daily experience. The single grade ‘ideal’ which came to dominate the basis of school, classroom and curriculum organisation is a universal ideal and is the basis of much of the policy to be implemented in primary schools. Pedagogy in single grade primary schools has dominated research, a pedagogy which has become orthodoxy as the normative and standardized way for teachers to teach pupils. The process whereby protocols, regulations, procedures, and professional standards must be interpreted locally and translated into a practice that addresses the specifics of pupils has given rise to many tensions on a local level with regard to multigrade classes.

Several of these tensions have already been outlined. As was reported in Chapter 5, the main challenges faced by respondents of the questionnaire survey in this study included: curriculum implementation in a multigrade context; insufficient time in the school day; textbook use; teaching a variety of age groups and inclusion of pupils with special educational needs. However, there are other issues facing multigrade teachers which are not widely reflected in international or national research, in teacher education curricula, school curricula, or assessment schemes (Little, 1994). Teachers are generally critical of the lack of training in multigrade teaching in their pre-service education (Veenmann, 1995, Turner, 2008). In addition, Turner (2008) reports that in the Irish context, over half of students did not complete teaching practice in a multi-grade class. Implicit in some of the research, is the view that educational provision in small multigrade schools is inferior to that provided in larger single grade schools. Data from research studies on the academic performance of children in multigrade classes challenges such claims, yet there is little research on the teaching and learning processes that might account for differential levels of performance or on how multigrade schools optimise the resources available to them or

capitalise with respect to pedagogy (Pratt 1986; Miller, 1991; Thomas and Shaw, 1992; Mason *et al.*, 1993)

The local/global dynamic is also demonstrated in some of the complexities of the school choice process and shows how choice is operated differently by different parents living in rural areas. Choices that middle-class parents make about schools suggest that the significance of place may be in decline. There may be a difference in how long-term rural residents 'locals' and people who have moved into an area 'newcomers make choices about schools. Walker & Clark (2010) demonstrated that local parents chose the local school because it was the nearest school; some chose it because of their family ties with the school and others out of a sense of duty to support the local community. They suggested there were three further factors – small school size, caring school ethos and one-to-one attention - which guided newcomer parents (parents who had moved into the locality) in their school choice.

The urban, parental-choice literature suggests that it is the dominant middle-class parents who have the most 'spatial' power to actualise the mechanism of parental choice. Evidence suggests that this also applies to the case study schools in this study. Mary and her family (Kildubh NS) had moved house so that her four children could attend a small school.

For other parents a choice of small school involved daily commuting to a more distant school. Sandy (Abbeyrasna NS) who lived out of the catchment area of the school to which she wished to send her children, engaged in a costly and time-consuming school run in order to exercise choice in relation to a smaller school. Sandy was also influenced by the fact she had also once been a past pupil of the teacher in Abbeytrasna NS when she taught in another school. These are examples where parents bring economic capital into the process of school choice but also their cultural capital which includes their knowledge of the school system.

Wenger (1998) suggests that an important aspect of the work of any community of practice is to create a picture of the broader context in which its practice is located. This study, located in the sociocultural paradigm, examines the research in a sociocultural context which acknowledges that learning processes are shaped by human action profoundly social in character and at all times mediated by cultural processes. These perspectives draw attention to the way childhood is constructed and reconstructed (James and Prout, 1997). In terms of my research study, access to cultural meaning comes through the voices of the people who work in

and attend these schools; the voices of the children and teachers on their experiences of learning and teaching in such a community.

The local and the global are related levels of participation that always coexist and shape each other. Thus, a dialectic is at work through which global processes interact with national and local actors and contexts. Communities of practice are not just places where local activities are organized, but they are also places where the meaning of belonging to a global community with its organizations and networks is negotiated and experienced. Current government policy promoting the amalgamation and the closure of small schools has forced small schools examine their existence and defend their positions. Recent media campaigns show high levels of community support for small schools which in many ways is linked to the distinct local identity of the community itself. This demonstrates that there is a process of give-and-take, an exchange by which these global processes interact with national and local actors and contexts to be modified and sometimes transformed.

Furthermore, through their participation, the pupils can learn how their engagement fits within the wider scheme of things. More generally what it means to be a younger or older, girl or boy, younger sibling or older child, self confident or shy; these meanings are shaped by the practices where such categories are lived as engaged identities. Children develop through participating in everyday practices but neither society nor its institutions are static and change over time in a dynamic interaction between the child's activities, institutional traditions and practices both local and further afield. At the same time children themselves influence their schools by arriving there with unique past experiences, motivations, interests, the relationships they establish with their teachers, the other children already in the school and so on. Other events which are topics of frequent conversations in schools which reflect outside concerns also become part of children's participation in schools. Therefore, local practices are connected to broader identities

The communities of practice explored in this research study are a fact of social life and are important spaces for negotiation of meaning, learning, the development of practices and the formation of identities- as involving complex interactions between the local and the global. The pedagogies and practices of the school communities are shaped by human activities, informed by circumstances, opportunities and constraints and influenced by multiple discourses about children's needs and nature. Local practices thus deal with a variety of global categories of membership and

identification for example age, gender, or intellectual ability and it is in the context of specific forms of participation that these broader categories are experienced in practice as lived identities.

Conclusion

In this theme, I considered the school world of the pupil participants and how identities come to be constructed in the context of a multigrade school setting. The focus in this section was on variability in the identity trajectories made available and taken up by children. Those capable of building membership identity through negotiation within their community of practice became central participants. The vignettes illuminated understanding of the meaning of the negotiation process as these children participated and appropriated cultural resources provided in their settings. Identity was seen to arise out of an interplay between participation and reification which is an active dynamic process. It is not an end in itself but is a constant becoming in a learning trajectory. Because children's identities are constructed in the social contexts of the classrooms and school playgrounds they become defined with respect to the interaction of multiple, convergent and divergent trajectories.

The children in this study experienced multimembership of many and varied communities of practice and the different practices which are present in each of them make very different demands that are difficult to combine into a coherent identity. Nevertheless, each pupil must attempt to reconcile for themselves a nexus of multimembership which will if successful enable them to form a more coherent identity across the various communities of practice.

6.4 Theme Three: Power and Positioning.

The importance of figured worlds as outlined in Chapter Two of this thesis is also the foundation for one of Holland *et al.'s* (1998) other concepts that is, negotiations of positionality which shape the construction of personal and social identities. Positionality refers to positions 'offered' to people in different figured worlds. Holland *et al*. (1998) state that positionality is an important concept because when positioned people are limited to varying degrees in accepting, rejecting or negotiating the identities being offered to them. Positional identities are to do with the day-to-day relations of power. How individuals take up narrative identities influences how they position themselves and are, as a result, positioned.

The children in their figured worlds occupy identities that are multiple and shifting and negotiated moment by moment. These identities are influenced by established arrangements of resources and practices within that community in which they participate as well as by the agentive actions of persons on these practices. Bartlett and Holland (2002) promote a hopeful stance in the power of human agency and adopting this perspective, my analysis of classroom practices is also guided by the consideration of how Junior Infant pupils are able to act to construct particular identities. I am interested in the processes by which children are enabled to develop and claim particular identities.

Disciplining Restless Bodies

Across the eight case study schools, particular normative expectations of child and adult behaviour existed. These normative expectations were considered necessary for schools in order to contain 'little devils' and protect 'little angels' (James *et al.*, 1998). Underpinning the purpose of schooling is the idea of childhood as a stage of 'becoming' with the schools as secure places which control and regulation of children to produce docile, conforming and productive bodies (Foucault, 1977).

Approaches to classroom management in my case study schools varied in the extent to which they were based on what Burden (2000) describes as low-, medium or high control strategies. Rules and regulations are central to all schools setting limits to the nature of body behaviour and are based around disciplining the body to become docile and useful to wider society (Foucault, 1977). Most of the disciplinary strategies used by the teachers in my study appeared to be directed towards achieving 'quietness' as a certain kind of docility in order to garner the attention of the children and maintain their concentration. Bridget, the class teacher in Ballyglen NS employed classroom management methods that were based primarily on behaviourism and high control as they emphasised external rewards and punishments to shape behaviour. In particular, Bridget considered promoting quietness as necessary for having a successful learning environment and an environment was established which presented a high level of behavioural regulation as the norm within the classroom. Bridget's approach which emphasised the importance of discipline and control was generally in keeping with that promoted by Department of Educations Inspectors as evidenced by comments in WSE and WSE-MLL reports (DES, 2013, 2014). For example, a chart displaying the importance of and how to achieve quietness was displayed in a

prominent position on the wall and chants were repeated regularly which reinforced behavioural expectations. Frequently throughout the day, Bridget asked the children to work 'nice and quietly' or to 'tip toe back to place.' At various junctures, Bridget regulated noise levels in the classroom by issuing praise for the 'quietest table', the Junior Infants because 'there wasn't a peep out of them,' or when a child demonstrated complete silence with a 'méar ar do bhéal' (Finger on your lips). This code of behaviour was consistently reinforced through a card (cárta dearg - red card agus cárta buí - yellow card) punishment and reward system which the Junior Infant girls, Emma and Sarah described clearly to me during an interview.

E: Whoever gets the cárta dearg, they are not allowed to play... whoever gets the cárta dearg, they are not allowed to play... They are only allowed to stay in the hall.
I: Did any of you children get a cárta buí?
E: Yeah some days we did.
I: Did ye? Did you get one Sarah? Did you get a cárta dearg ever?
S: No.
I: What would happen if you got a cárta dearg?
E: You would have to go to Miss Furlong (the principal)
I: Which is worse, cárta buí or cárta dearg?
S: Dearg.
I: Oh cárta, oh right and what happens if you get a cárta dearg?
N: You go to another room.
O: But not really, not really, dearg is worse.
S: If you get two cárta buís, you get cárta dearg third. Cárta dearg is the third one.

As is illustrated in the excerpt below, the participating children believed that the teacher was the one who had the power and that they themselves were powerless. The boys Noah and Oisín also point out that their teacher had the power to remove the card seemingly without explanation. The power of the teacher to bend the rules was prevalent in both this and the next extract.

I: Did anyone ever get a cárta dearg?
N: Jerry did.
O: He didn't because she took it out.
I: Oh she took it out? Why did she take it out?
O: She takes it out sometimes and she doesn't take it out.
I: And why would she take it out?
N: So he, cos he could start off again. Well I did get a cárta buí once.
I: What did you get a cárta buí for?
N: For being really bold.
I: What did you do that was really bold?
N: I don't know.
I: You can't remember? Oh right and did she take it out then?

N: Yeah

The fact that Noah cannot remember his misdemeanour may seem to suggest he is displaying a certain resistance to the cárta dearg and cárta buí system. Lewis (2001) cautions against over-reliance on such systems and suggests that high control methods of classroom management are least effective for regulating behaviour and promoting learning in schools. The threat of physical isolation from peers is also suggested in the children's accounts of the card system. I never observed this technique being used but the threat of being sent to another room or sent to the principal seemed to be enough to stop any unwanted behaviour.

Contemporary behaviourists typically distinguish between procedures for increasing desired behaviour and procedures for decreasing undesired behaviour (Brophy, 2006). In a second interview the children described the 'raffle' reward system which was in use in several classrooms in the research study to 'catch the children being good'. This approach can be traced to behaviourist learning principles first espoused by Skinner (1968) which state that positive reinforcement will strengthen behaviour by applying a stimulus (or reward) following the desired behaviour. In the raffle system, as Emma describes in the extract below, if a child was observed adhering to the rule the teacher or SNA could reward them with a raffle ticket. At the end of the week there was a raffle for prizes. While this system provided public reinforcement of appropriate behaviour, it also seemed a haphazard system at times and depended on a number of precarious factors e.g. timing, being seen, and humour of teacher, how many other children were engaging in the desired behaviour.

I: Oh yeah we took it at Easter time, well spotted. What's this here, do you see this jar?
N: That's for the raffle tickets. For keeping the rules.
I: Oh I heard Emma you got a raffle ticket? Why did you get one?
E: I didn't get one yet.
I: Yeah but why are you getting one?
E: Because I did like this.
I: Put your finger on your lips, oh right

The Trophy Day as described briefly below was representative of a type further public accolade for appropriate behaviour to the entire school at assemblies. Whole school assemblies were held in Gortglas NS, Scoil Rathóg and Ballyglen NS. In observations

of assemblies it was noted that Junior Infant children did occasionally receive awards for 'best effort' or 'most improved'

O: The blue ones are just for getting prizes but the special ones are for getting prizes too. And they have a trophy. That's only for Trophy Day.
I: Oh and what's Trophy Day about?
N: For people who are really really really really good. You can get it at assembly.
I: Will you tell me more about assembly?
N: It's on in the hall with everyone. Miss Furlong (the principal) gives out the trophy
I: Oh my goodness, did you boys ever get the trophy?
N: Well I got it before.
A: I only got it once.
I: And you got it once too. What did you do to get it?
A: I don't remember.
I: Did the other Junior girls get it?
O: The others got more than u (referring to Noah, the other boy in Junior Infants and himself). Like Emma and the other ones in Juniors. I just got it once.

The necessity for teachers to look beyond behaviourism is well illustrated in this extract. It could be argued perhaps the children's perception of such external motivation systems as the raffle and trophy systems could undermine their self maintenance of positive behaviour. Oisín's impression that he doesn't receive the trophy as much as the others is interesting. During observations, I noted that the pupils in Junior Infant classes were subject to greater levels of praise in comparison to their older classmates

In Kildubh NS and Ballyglen NS there was much emphasis placed on the importance of bodily control. This is suggested by frequent requests to 'fold arms', to 'keep feet on the ground' and to 'sit up straight' which shows children were expected to conform to a certain level of body control. The excerpt from Ann's instruction in an art activity below illustrates the very high expectations she had of the level of self regulation from the children

A: Keep the clay on the plastic. Use your finger like teacher to smooth out the clay. Keep all sides the same. (The children spend about two minutes smoothing out the clay.) Now take hands away from the clay because if you overuse it the clay will dry out. Clay down now. (Some children are finishing up) Clay down now. 5,4,3,2,1 …Still waiting Evan, still waiting Evan. You are the only Junior Infant left now. (Elma another Junior Infant sits with a small space in front of her) Oh goodness, pull in your chair Elma.

The figured world that these children faced was highly ritualized. In the art class children watched teacher demonstrate procedures and then practised the procedures alone. The count down technique for bringing about quietness or order as demonstrated in the above extract was one in use in many classrooms. Usually, the countdown started at five but sometimes at a much higher number for example at twenty in Gortglas NS. In this school, the children who were already complying with the teacher's request often joined in the counting and made the strategy interesting because at that point it involved both children and teachers in exercising control. The strategy was highly contagious and it did help mediate levels of self control which were at times particularly demanding for younger pupils. Rather than constructing as 'other' those children who could not conform quickly to the request it allowed each child to join in when possible. Therefore, each child recruited themselves into the process of self-discipline and the interactive characteristic of the strategy gave distributed power among teachers and pupils alike.

The aim for teachers in structuring a quiet space in the classroom was usually pedagogical. A certain level of quietness was required when teachers had to speak to large groups of children. Sometimes games of simple physical imitation, for example, Simon Says, were used. Another example of an imitation technique was 'Brain Gym' used in Scoil Eirne. This was a set of exercises introduced by Rose the Resource teacher to 'get the brains working' and is described in more detail in Chapter 5. Clodagh, a pupil in the Junior Infant class, thoroughly enjoyed this activity and it enabled a certain level of interaction between older and younger children. Yet, the techniques used although possibly more appealing to younger children, were also aimed to achieve repetition of gestures and were underpinned by the belief that trained, docile bodies were a pre-requisite for learning.

Medium control approaches to classroom management are based on the belief that control of pupils' behaviour is a joint responsibility of the child and the teacher (Burden, 2000). In Abbeytrasna NS, Cashelbeag NS, Drumleathan NS and Scoil Eirne children were not expected to conform to the same level of bodily control as in Kildubh NS and Ballyglen NS. A higher incidence of tolerance to movement and unorthodox behaviour was observed in these settings. Routines in these classrooms were more flexible on bodily control and more enabling for younger children. In Ballyglen NS, for example, children had regular breaks for movement and in Drumleathan NS the Junior Infant had access to a play corner where they could take

regular breaks. In keeping with community oriented classroom models, the teachers in these schools Maureen and Jane attempted to create an equitable environment that afforded each pupil and opportunity to be successful.

The notion of controlling bodies through praise and punishment is underpinned by the concept of surveillance. Surveillance is carried out by direct (e.g. observation) and indirect (e.g. marking workbooks) means. In this way the metaphor of the panopticon can be applied to these classrooms (Foucault, 1977). The aim of such surveillance and control is that children will develop self regulation.

The physical layout of the classrooms also increased or decreased levels of surveillance and while schools could not be viewed as homogenous spaces, there were some similarities between classroom designs. In Drumleathan NS, Gortglas NS, Kildubh NS, Scoil Rathóg and Ballyglen NS, the Junior Infant class sat at a set of grouped tables in their own section of the classroom. This group of tables was generally sited near the teacher's table. It could be said that the tables were arranged around the 'watch tower' of the teacher's desk which made it possible to survey and control the children. The teachers in these classrooms moved around the room but rarely sat with the children. Obviously it was impossible for the teachers to see everything that went on in classrooms. However, they did remind children from time to time that they were watching which in some cases was sufficient to lead to self-regulation on the children's part. Although in Abbeytrasna NS and Scoil Eirne general panoptic principles were also represented and although the Junior Infant class sat alongside the Senior Infants in a u-shaped formation of tables, their teachers sat with them frequently throughout the day. The teachers sat on smaller chairs at eye-level with the children so the children were in view for most periods.

In Drumleathan NS the Junior Infants were located at the opposite end of the classroom to the teacher's table. The large groups of First and Second Class pupils sat near the teachers desk making the position of the Junior Infants seem all the more isolated. There were times when the Junior Infants felt this isolation e.g. during an observation I noted that Kate wanted to show her work to the teacher, but on reaching the edge of the First class group of tables, she hesitated seemingly unsure whether to venture on. The teacher called out 'I'll be down to you in one minute!' This demonstrates possibly that the pupils in this class were largely left to 'get on with it' while the teacher coped with the demands of a large class or it reflected the teacher's belief about the ability of these three children (all girls) to self-regulate. Their tables

were however located next to their 'play corner' an area which they felt 'belonged' to them The rest of the class sat around the Junior Infants for whole class lessons. The Junior Infant children in Cashelbeag NS were seated in rows of tables facing the teacher's table. The space between the tables was quite tight so therefore it was difficult to walk through and to get near to the children. Edel, the teacher frequently called the children to come up to her desk if she wished to teach them. Also, their relative isolation at one end of the classroom meant there was little opportunity for the Junior Infants to communicate with their older classmates in First and Second classes.

Child Spaces of Resistance

Although teachers have greater access to 'authoritative resources' (Devine, 2003, p. 122) by virtue of their adult status, children have the ability to resist and contest their control. Obviously it is not possible for teachers to see everything that happens in classrooms and findings in this study would suggest that it is particularly difficult in multigrade classrooms to observe all of the children. When children are out of teacher's gaze they constructed 'child spaces' of resistance and I observed that these episodes of resistance did at times take place in a relatively open manner For example in Drumleathan NS, Sheila is frequently observed engaging in transgressive activities during the lessons. She is seen in the vignette below attempting to persuade the other girls to join her.

Flicking rubber
The three girls have begun a Maths task to 'Draw the correct number of sweets into the jars' that has been set for them. The teacher Maureen leaves the classroom to speak to the secretary. The graphite falls out of Kate's pencil and she must insert it back in. Kate begins to work while Sheila and Linda discuss pencils.
S: Let's take off our cardigans
L: Sssh
Kate takes off her cardigan without speaking and then continues to draw taking extreme care with the work. Linda and Sheila chat about the previous page in the textbook. The teacher returns to the classroom and asks the Junior Infants how they are getting on. Sheila and Linda begin the writing. The teacher goes to work with the Senior Infants sitting with her back to the Junior Infants and Linda goes to the classroom bin to sharpen her pencil. Sheila starts to flick an eraser and when Linda comes back, Sheila flicks the eraser to her. Giggling Linda she joins in and the flicking continues back and forth for a little while. Eventually the eraser falls off the table. Linda looks for it but Sheila covers it with her foot. When Linda retrieves the eraser she throws it to Kate who is now diligently colouring. The teacher turns around, glances at Sheila and informs the girls they have five minutes to finish. There is silence for two minutes and Sheila completes the drawing. Kate begins to chat now. The teacher corrects the work commending all three girls for their 'gorgeous' work

and for having 'worked so had!' The entire episode has taken twenty five minutes with Sheila taking three minutes to complete the written activity.

In this classroom power is negotiated in spaces that are dynamic and contested. When the teacher is out of the classroom or when she is teaching another class with her back to the Junior Infant pupils, Sheila recognises that she is free to be involved in activity of her own choosing. As previously highlighted Maureen, the teacher assumes that the Junior Infants are 'getting on with their work'. Sheila's actions are in direct contrast to Kate who obediently carries out the task she has been assigned. Yet, at the end of the lesson all three girls receive the same praise. Considering again the construct of figured worlds that describe how representations of classroom practices invoked in relation to certain children frame their social position and the construction of their identities, this data excerpt illustrates how Sheila is variously constructed as 'younger pupil' in the figured world of the multigrade classroom. I argue that mediation of the identities of Junior Infant pupils in classroom practices is tied to teacher expectation and pedagogical style.

This vignette also provides an interesting example of how power negotiations operate between children and their peers. Sheila succeeded in persuading Linda to join in the fun and so she was able to extend the episode of resistance. Kate, although she doesn't join in, benignly let the transgression play out. Once the teacher engaged the girls again with her 'panoptic' gaze and her reminder that time was nearly up, another shift in power took place and all girls set to work on their task. Thus, this classroom space emerged as a site of power which could be viewed as multilayered imbued with varying meanings by different actors in these spaces.

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'My brother likes pink. He is a girl. Is he a girl?'

In this section I draw on a Foucauldian analysis of power to explore gender discourses within which the young children were positioned. Local power/knowledge relations become central to the children's understandings of gender and as newcomers they learn to perform masculinities and femininities through legitimate peripheral participation in play and classroom activities.

Contrary to Winsler *et al's* (2002) findings which demonstrate that gender segregation happens less often in mixed age setting in comparison with single age settings, the gender divide was clearly marked in Cashelbeag NS. In particular the

playground of this school emerged as a space where Ava, one of the two girls in the Junior Infant Class was often positioned as less powerful than her three male classmates because superhero play and football games gave greater access to space and resources in the playground. One of the girls, Joanne, had special educational needs including physical and intellectual learning difficulties. Joanne spent part of every day outside of the classroom with a Resource Teacher and for most of the remaining time was accompanied by an SNA in the classroom and in the playground. My data analysis focuses on how the other girl Ava and the three boys Ben, David and John come to learn the importance of gender in their community of practice.

In their play, children are often positioned within discourses as sometimes powerful or at other times powerless, depending on the social relations of power in operation in the specific situation (Davies, 1989). Within the boys' community of practice in this school, football is a masculine object of knowledge. Play time was dominated by the football game which took place on a relatively small grassed area at one end of the playground. The children informed me that this was the pitch was the most important place in the school. As the game was played by the boys in the older classes, the new boys learned that football was for boys and not for girls. The big boys were 'in charge of the game.' They were the ones to arrange the teams and to retrieve the ball if it went over the school wall. Sometimes the older girls joined in on the periphery of the game which suggests that it was acceptable for girls to remain on the fringes of excitement and fun. Ava reported in an interview that she never played on the grass and neither did I see her venture near there. The set up demonstrates how important and how difficult it is to contest that football is 'for boys' when it is such a powerful marker of boys' hegemonic masculinity (Paechter, 2007).

As mentioned in the previous theme, there are times when the younger boys are not allowed play at all. The younger boys understood that the words 'Get off the grass' means they will not be allowed play that day. When the older boys excluded the younger boys and the girls, they are asserting membership of their own community of practice. Through observing the older boys, the younger boys also learn to exclude girls and less skilled boys when they gradually continue to take a fuller part in their own game.

Sometimes a second game of football was organised in the yard which the Junior and Senior Infants, First and Second classes play. In these smaller games, John and Ben in particular demonstrated their knowledge of football language, extensive

knowledge of the rules and the behaviour of adult footballers. They enjoyed the physical rough and tumble of the game. They informed me they were allowed to do 'tackles and stuff'. Tackles involved 'pushing them down and hitting their heads and stuff'. The rituals of success in football which were performed by the young boys as they attempted to do cartwheels when they have scored a goal showed that the boys had worked out the 'rules' for belonging in this community of practice of masculinity.

In the classroom, David one of the Junior Infant boys demonstrated that it is acceptable for boys to dominate girls. David has two older sisters and when I ask him he is unable to tell me what class they are in. He exhibits sexualised behaviour drawing a picture of his mother's body parts to ridicule. While he drew a picture of his Dad as the biggest and then to make himself seem all the more powerful draws himself as bigger than Dad. He then positioned his father as someone who can 'drag the cloud and pull it down to earth'. In a later interview he drew a picture of John's older brother Gary as a girl and then laughed at it again saying 'Look Gary's a girl!' He calls my recorder a 'pink, pongy recorder'. In the lesson described below he was seated next to Norma, one of the Senior Infant girls.

> *D: Is that good colouring? Teacher, Norma is going emptying my topper. Thanks.*
> *Teacher is calling the roll. Daithí de Brún?*
> *D: Anseo. What the heck are you doing? The topper doesn't go in there. I'm using that topper and rubber.*
> *N: Ok.*
> *D: Hey Johnny, what page are you on? (Leaves his seat to go and look at John's work). Get out of my way (speaks very aggressively to Ava). Where's my orange? He can't find the orange colouring pencil. However, it is under his colouring sheet.)*
> *T: (Looking at David's work) Good boy, stay inside the line.*

As evidenced in the extract above, he uses an aggressive and threatening tone and seemed to exert complete power over the Senior Infant, Norma. The teacher failed to notice the interaction or the tone used by David and so not only was he unchallenged but with her 'good boy' comment she supports him. On another occasion when there is nobody next to him he spent an entire lesson walking up and down to Ava's table. David borrowed Ava's crayons without asking. Ava was silent throughout and remained intent on her colouring. David seemed to believe he had an automatic entitlement to share the property of the girls without asking for permission. Ava through her silence may have demonstrated a kind of deference and service to

males that has been identified as an important aspect of a community of practice of femininity (Paechter, 2007).

Another practice of hegemonic masculinity in this setting in which David took a leading role was the 'wars' associated with superhero play. During the superhero play based on the 'Super Mario Brothers' and along with the other boys in the Junior and Senior Infant class, David showed his physical force, delighting in 'playfighting' and in between showing bouts of comradeship with his friends. Masculinity has to be conferred by boys on each other (Paechter, 2007). Each of the boys wanted to take up the role of leader Sonic and there were many arguments to rectify the 'pecking order'. David was particularly adept at employing strategies of exclusion with respect to John as he was with Ava. Although from my observations I noted the girls showed little interest in joining in, nonetheless in the interview David spoke for the other boys and was quite adamant that they would not allow Ava to play with them. With the comment 'she's too slow' David completely dismissed her as a playmate.

In the short extract below, the teacher is sitting on David's table with two older pupils from Second Class with her. David and Ben are chatting underneath her.

D: Do you like pink?
B: My brother likes pink
D: He's a girl. Is he a girl? (They both laugh)

Some practices have become reified as markers of masculinity and femininity in particular contexts (Wenger, 1998). These markers are deeply rooted in children's power relationships and pertain to the ways in which masculine and feminine practices are embodied (Paechter, 2007). In this instance, David used 'pink for girls' as an important symbol for girl things but also as a way of demeaning another child. With both boys laughing in a derisory manner, they show that a key marker for masculinity is the avoidance of pink at all costs.

Ava was completely excluded from the play of her male classmates. While she was at times in the company of Joanne she was in a caring rather than playing role. Joanne was also accompanied by an SNA at all times in the playground which made it difficult for Ava to play with her. Ava did play with the older girls but appeared to be on the margins there also.

I: Would you like if there were more girls in the class?
A: Yeah, 'cos the boys never be friends with me.
I: Oh, so who do you play with?
A: There's Susan, Norma and .. Oh yeah there's only two.

There was also an assertive group of girls in the other case study school who had strong personalities and were often seen exercising power and being dominant. For example, Megan in Scoil Rathóg commanded the boys in the already mentioned game of Superdog and Mouse Cheese giving instructions and expecting them to obey. Megan possessed the knowledge to confidently direct the boys' behaviours and also showed some insight in knowing which boys could be manipulated in this way. These findings are in contrast to those of Quail and Smyth (2014) where younger girls had poorer perceptions of themselves when they were in multigrade classes with older children.

Older girls often take on the role of personal assistant to the teacher. For example, Maeve, an established old-timer and Second Class pupil in Cashelbeag NS is adept at organising and pre-empting teacher. In doing so, she is also positioning herself as competent and more powerful than the boys in her class. Heather in Scoil Eirne also positioned herself as a quasi-teacher. These girls took up positions of 'sensible' girls in a belief that such behaviour gets approval from teachers (Francis, 1998).

'Singing a song you don't know really know what the words are'

An effective learning community develops respectful relationships among the pupils and this section considers children's positive and negative social relations with older children. In formal learning, children were most often included with older children in Abbeytrasna NS and in Scoil Eirne and in these communities children are taught how to develop social competence. There were several episodes in these classrooms which have already been discussed which showed that the teachers positioned the Junior Infants as part of the class rather than as a separate group. For example, in Abbeytrasna NS the episodes already described included the science lesson on ice melting, the shared book experience with an older and younger child pairing, the art lesson on shapes, the recording of Goldilocks story and a dance in P.E. In Scoil Eirne the lessons included potato planting, painting daffodils in art, and in writing and presenting the news stories. In these classrooms the teachers Orla and Jane helped children construct knowledge through social interaction in active learning processes. Darling-Hammond and Bransford (2005) suggest that classrooms that encourage these types of social interactions can produce rich learning experiences.

For Orla and Jane, creating such classrooms was a significant part of their classroom management and these teachers encouraged mixed age groups also in informal ways. For example Ryan helped Clodagh with her brain gym exercises in Scoil Eirne and Cian helped Rachel with the playground equipment trolley in Abbeytrasna.

In the other schools Junior Infants clearly benefited from being in a multigrade class as they experienced activities along with the older children. For example in Drumleathan NS, Gortglas NS and Kildubh NS the Junior Infants attended swimming lessons. When I expressed some incredulity at this, the children were very excited and proud to share the details.

I: You children in Junior Infants go swimming?
E: Yeah. On Mondays.
I: Well I have been to lots of schools and I never heard of any Junior Infants going swimming. You go on Mondays? Right.
E: Yeah and we wear our tracksuits.
I: When do you go?
C: After big break. And we only get ten minutes outside to play, till the bus is here.
I: Oh right.
C: We have a little play. Sometimes when the bus is not and the bus is not there, we have a little play and the bus is there, we go in.
I: Ok. So what classes go in then?
E: All of them. There is a big pool for the older people.
I: Right. What classes would go into the big pool?
C: First Class.

Colm positions himself as a risk taker in the following part of the extract. The fact that he didn't need the bar to jump in shows that although he is not in the big pool with the older children he can do something that signifies he would be capable of being there. Niamh is more cautious and observant of the rules of the pool. She clarifies exactly the criteria for entry to the big pool (i.e. it depends on the height of the child as measured from the waist)

N: Aoibhinn's in First Class but she's in the small pool still. Oh and Bill... he goes in the small pool. You have to measure the side of your waist. There's ropes to... the pool.
C: But we got a jump in the big pool. I jumped into the water and I sinked into the water, like this, and then I sinked and then I go up
I: What about Niamh? What did you do when you jumped in?
N: I needed the bar. The bar, you have to hold onto it.
I: Oh right.
N: No you jump in and let the bar go.
C: And some people didn't need it. They jumped without any.

There are a number of examples of exercising power positions at play here. Firstly, there is excitement in the children's voices as they describe their swimming outing and it is obvious that the children are proud to be included in this activity. It is obviously an important event in the school calendar as the children seem to know exactly when it will take place. Secondly, there is the description of the jumping in activity which sets Colm apart as an active agent, someone who creates his own autonomous space where he can be more firmly in control of the swimming experience. He jumps in without fear, breathes and comes to the surface again. In this activity he behaves as a swimmer and aligns himself with the older children in the bigger pool. Devine (2003) suggests that children are continually jostling for position in the classroom affiliating themselves with certain children to enhance their sense of belonging. This episode illustrates that in the multigrade setting in particular Junior Infant children always have somebody older to look up to and to compete with and so a more complex response is required from them. Therefore, while Junior Infant children may be successful at locating themselves in powerful positions among their peers, there is an added dimension as this position needs to be constructed also among the older children.

However, competing for powerful positions is a constant struggle for younger children and in their interviews; a sense of otherness was noticeable in comments which revealed their frustrations with the older children. For example, in Gortglas NS, Tyrone complains that sometimes the older children shout the answer out and don't give the Junior Infants a chance to answer. In Abbeytrasna NS, Rachel was very annoyed in the third term when the infant classes were not allowed go on the school tour. The younger children had to stay behind because there were physical activities in the tour which the teacher believed would be unsuitable for the younger children. Sometimes the bodies of Junior Infants were subordinated by the older children who imposed the rule of quietness on the younger children. On various occasions, I observed older children telling the younger children to be quiet. Here, the older children were recreating a rule imposed upon them by teacher. They could obey these rules themselves but felt more powerful trying to enforce them on the younger school pupils. In terms of resources allocation in Drumleathan NS, Linda reported that the Junior Infants never had the use of the laptops. My observations concurred with this as the First and Second Classes used the laptops on all of the days I attended the school. In conclusion, the Junior Infants' sense of otherness is well summed up in the

comment of Megan in Scoil Rathóg. I asked her what she found difficult in school; she expressed her frustration with 'singing a song that you don't really know what the words are!'

According to Foucault (1972, 1980), wherever there is power there is resistance in reaction. There were certainly many instances of resistance to positionings by older children where younger children adopted different strategies to help them to 'get their own way'. Allanah is a pupil in Gortglas NS who made use of some very subtle resistance strategies to undermine the power of both the teacher and the older children. In this school there was a larger Junior and Senior Infant class which may have influenced the power dynamic in the room. In addition, Deirdre, the class teacher worked from a child-centred, developmental perspective where she saw the younger children as in need of more of her attention and care. She remarked that 'In my set up it is easier, I think, to focus on the infants as there was such a big class of them and I actually prefer teaching the younger age group anyway so that's great!.' Allanah drew heavily on both her size and her younger age to position herself as needing the teacher's help. She wanted to command the teacher's attention and was very successful at physically positioning herself in prominent places where the teacher could not fail to notice her. For example, Allanah used her position as a younger child to follow her teacher around the classroom as this was accepted behaviour from the younger pupils in this classroom while the older children were required to 'sit in their places'. I heard her repeatedly, calling on 'Ms. O'Keefe' naming the teacher specifically in order to command her attention. It appeared that this strategy particularly appealed to this particular teacher who often referred to herself as Ms. O'Keefe. This is an example of adult-pleasing discourse as identified by where children reiterate school values to impress the teacher (Davies, 1989). Allanah used a similar strategy when she faced a struggle to draw a picture of a lion. She told the teacher she could not draw the picture because she was tired. Deirdre tried to encourage her saying 'C'mon Allanah. I'm no good with animals'. Allanah refused and began to cry. Eventually, the teacher agreed to draw the picture saying 'Ms. O'Keefe will draw it'.

In the third term the children walked to visit the library. Each Junior Infant was paired with an older child. Several of the older children offer to be Allanah's partner. Allanah did not accept any of the offers of the older children. She preferred to negotiate her position only with the teacher, implying that for her the power of the

teacher outweighs all others' power. When the line is ready Allanah moved next to teacher and slipped her hand into her teacher's saying 'Ms. O'Keefe, can I hold your hand?' The added bonus is that Allanah is positioned in the most coveted place at the front of the line as the teacher's partner and friend. I later observed her reserve a place for Deirdre the teacher to sit next to her at the whole school assembly. Analysis of these incidences suggest that Allanah's construction of herself as teacher's friend and partner and above the 'authority' of the older children, served to create a powerful and special position for her in this multigrade classroom.

Conclusion

Throughout the study it was clear that children were subject to surveillance and control within their primary schools although some of what happened in classrooms remained undetected by teachers. The social norms which were part of every school informed practice setting up a culture in which certain limiting and enabling practices were more likely to occur. However, this did not deny the potential of individuals to reproduce, to contest or to transform these social expectations. In the relations between older and younger children, schools are sites of powerful negotiation and conflict with more powerful pupil narratives dominating those of less powerful pupils. However, this domination is unstable and can change due to the development of opposing discourses which vie with one another over time (Foucault, 1980).

6.5 Chapter Conclusion

In pulling the threads of this chapter together, I return first to consider again Rogoff's (1995) three planes of analysis to synthesise how participation is negotiated in the micro-spaces of person to person interaction within the broader macro-space of transaction with distal cultural artefacts and discourses. The first key theme 'Apprenticeship and Agency: Challenge and Complexity', considered the dynamic relationships between the activities of Junior Infants in the communities and institutions where they occurred. Mapping the data in this way helped to represent the Junior Infant children as creative and strategic members of communities of practice who construct, reconstruct and respond creatively to their multigrade classrooms and permitted a broader picture of learning as it occurred in the multigrade classrooms to emerge. The community plane of analysis emphasized the institutional structures that were seen to sometimes support or at other times constrain learners' participation.

Rogoff's (1995) interpersonal plane also corresponds to the first theme. Guided participation is the metaphor Rogoff (1995) uses to describe this plane and the concept provided a useful lens to investigate the process whereby the Junior Infant children are mutually involved with their teachers and the older children working together and learning from one another in the classroom. The nature and dynamics of the interactions between children and their classmates and between the teacher and the children were highlighted to illustrate and exemplify how mutual involvement is experienced in everyday happenings, organized instruction and face to face exchanges.

The individual plane enabled an examination of how learners transformed their understandings of activities through participation (Rogoff 1995) and pertained mainly to the analysis presented in the second key theme 'Identity and Belonging: Belonging and Identity?' Rogoff (1995) uses the metaphor of participatory appropriation for the individual plane because it is through participation that individuals both take from and contribute to meanings, actions and ideas of others. In this study, Junior Infant pupils involved in the appropriation of practices and discourses of the broader community learned to construct their sense of identity and belonging within the discourses, institutions and practices that were culturally available to them in multigrade classrooms and shaped their lives offering them affordances and constraints which will be opportunities for some and barriers for others. Participatory appropriation was highlighted in seeking to explain individuals' active social positioning involving membership identities emerging within the community of practice of the multigrade setting. The discussion foregrounded the mapping of individual pupils' learning trajectories which were characterised as 'inbound' or 'peripheral' seeking to understand why some pupils became central participants and other peripheral participants in multigrade classrooms. The children (Megan, Ben, and Emma), who were afforded opportunities for participatory appropriation in their settings, were moving towards being central participants in their communities of practice. Through a continuous process of negotiation of meaning, these pupils learned the knowledge and skills within their communities of practice that empowered them to become competent members. What is striking about these children is how they change and are transformed through their activity and in this sense their learning was a process of becoming rather than being. Other children (John and Kate) who failed to get access to such cultural resources tended to position

themselves or be positioned as less than full participants in multigrade communities of practice. They received less support from teachers and other children in the classroom and appeared to have more limited possibilities for appropriation. In the case of these children the dominant role of the adult or the older classmate was a constraining feature making fewer opportunities for these children to engage fully in their communities of practice

The analysis presented in key theme 3, 'Power and Positioning', illustrates how the dimension of power is central to the exercise of social relations and pedagogical practices in multigrade classes. From the children's perspective teachers appear to be the power holders in school and through the exercise of such power the children in the study were seen to construct a sense of themselves as 'other' in their relations with adults (Devine 2003). The Junior Infant pupils have the capability both to submit to and to exercise power in their relations with adults at school. Away from adult surveillance, children constructed another world made up of its own rules and regulations. Within the classroom contexts of the eight schools varying opportunities were presented to Junior Infants to position themselves as experts or apprentices and consequently, Junior Infant children had differing opportunities to access status, authority and power. The inherently unequal nature of power relationships was seen in the ability of some Junior Infants to act as active participants in their school settings. Some children (David, Allanah, Sheila, Clodagh, Megan and Emma) negotiated their positions to produce moments where they were central to classroom and playground processes where the negotiations were influenced by a complex range of systemic indicators of difference-primarily those of status, age, gender and perceived academic ability. These moments became part of the history of certain children and later formed the basis on which further participation was enacted.

A significant feature of multigrade classrooms is the greater levels of pupil diversity in terms of learning needs and achievements of pupils. The findings from this study indicate that addressing issues and differences among children poses significant challenges for teachers. More importantly, perhaps, the findings show the level of contrast that exists between practitioners in multigrade settings as they address the issue of diversity. Although the eight case study schools differed from each other, the teachers faced similar challenges in terms of curriculum implementation. Intentionally, all of the teachers supported the curricular ideology of social constructivism and child centeredness as espoused in the Primary School

Curriculum (1999). However, the reality that existed was that because of mitigating factors such as class size, number of grades in the class, number of pupils in the grades, curriculum coverage, lack of time, presence of children with varying special educational needs, dominance of text books, availability or nonavailability of additional adults in the classroom and classroom management issues, what I found was that pedagogical approaches varied widely from those that tended to be extremely didactic to those that were based on a less formalised approach to children's learning .

The analysis of the data collected across six of the eight case study schools (i.e. Cashelbeag NS, Drumleathan NS, Gortglas NS, Kildubh NS, Scoil Rathóg, and Ballyglen NS) during this study suggests that didactic modes of instruction were the norm which teachers supported with classroom management strategies that were for the most part behaviourist in nature. Patterns of interaction remained teacher focussed rather than child-centred and teacher directed models of pedagogy were commonplace. Traditional curricula that emphasised knowledge acquisition and which promoted a rigid approach with outcomes prescribed were the norm. Thus, most children were presented with an academic curriculum which was text bound and assessment driven.

However, there were a minority of teachers in the study who recognized that they could not ignore diversities in the multigrade classroom or treat them as incidental to the core business of education. Consequently, these educators paid closer attention to pedagogies that assisted younger learners in achieving educational parity with their older classmates. This involved more than "in principle" commitment: it took time, effort and pedagogical skill. The challenge was to introduce the pedagogical practices, dispositions and values that were needed to be sustained within that context, so as to achieve parity across age and grade groups.

In particular, there were two teachers in Abbeytrasna NS and Scoil Rathóg who adopted a far broader and richer approach to their teaching. A critical component of their teaching was that they created classroom climates which were conducive to learning for younger children. The findings of this research study suggest that these teachers exhibited several salient attitudes that accounted for their successes in the multigrade class. The teachers (a) held affirming views of different learners in the multigrade class, (b) approached their teaching as building on what the Junior Infants knew and stretching them beyond the familiar, (c) saw themselves as responsible for

and capable of bringing equity to the classroom and (d) were socioculturally conscious.

Both teachers held affirming and positive attitudes towards the multigrade contexts and worked within these contexts to create multiple opportunities for younger children to engage in collaborative dialogue with themselves, with the older children and with their peers that supported the relationships within which teaching and learning occurred. The teachers possessed a range of pedagogical knowledge and illustrated the use of a wide range of strategies, which provided multiple opportunities for all children but in particular younger children to engage with the curriculum. Crucially, teachers knew when and how to use their specific practices in a range of different circumstances. They choose material with regard to knowledge of children's zone of proximal development and with careful scaffolding stretched children to do better than they might have been able to do on their own. The attitudes of these teachers included a respect for all learners and their experiences and a confidence in their abilities to learn. They tailored the curriculum and instruction to ensure all children were engaged in meaningful work and showed a readiness to reflect and adapt their own practices and an engagement with seeking new solutions to problems

In addition to capitalising on children's strengths the teachers worked from a 'socioculturally consciousness' perspective. These teachers took greater cognizance of how they interacted with their pupils and held an awareness of themselves as cultural beings and of how that culture shaped their views. These teachers exhibited resonances of a social constructionist ideology working to provide a more egalitarian social context for all children and providing opportunities for children to articulate their views. Furthermore, they remained child-centred and recognized that the agency that was afforded to Junior Infants in their settings was also commensurate with their readiness to enact it.

In conclusion, the elements which define the practice of the eight case school teachers emerging from this chapter constitute a step toward a more nuanced understanding of how Junior Infant pupils and their teachers negotiate the cultural context of multigrade classes. It is difficult for teachers to make systemic pedagogical shifts within graded educational institutions that are struggling to make sense of the complex everyday reality of classroom life. In documenting specific instances of the classroom practice of these teachers, I hope to contribute to a growing body of knowledge of early years' pedagogy in such settings.

CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

My career in education has always been entwined with the dilemmas of teaching in a multigrade class. I began my career as the only teacher of a multigrade class in a large school of single grade classes while twenty five years later I am now working as Principal of a multigrade school. This study is part of that journey.

Since I began my doctoral reading and visited the schools to do the field work on this topic, I realise now that the struggle to find an answer to the question of 'what works in a multigrade class?' is inherently a struggle with positionality. All practice is embedded in a sociocultural historical and political context and is influenced to a greater or lesser extent by dominant values and beliefs in society about the purpose of education and the views of the learner within the sociocultural context. One could argue that the ideological stance adopted by teachers, whether conforming, reforming or transforming (MacNaughton, 2003) impacts directly on pedagogy as enacted and experienced in the classroom. However, this is not necessarily the case as situational challenges can constrain and compromise aspirations for classroom practice.

My research journey also touched on personal aspects of my life as my daughter began as a Junior Infant in a multigrade school in the same year as the children of my study. While discourses surrounding children as active social agents (James and Prout 1997) are strongly present in this study, my own experiences of motherhood were also instrumental in shaping my belief that it is most important to engage the voices of the children to demonstrate their capabilities in exercising agency include their ability to create and interpret for themselves their social and cultural worlds. With my daughter's everyday tales of the classroom and the playground, I also witnessed at first hand how identity as a learner could be negotiated in the figured world of a multigrade class and why a more complex conceptualisation of identity might become part of this study.

In the opening chapter of this thesis I envisioned this study as one that would juxtapose the issues of early childhood pedagogy in multigrade classes with the theoretical concerns of identity, positioning and power and therefore the study was guided by the following questions:

1. *How are early childhood pedagogical practices enacted by teachers and interpreted by parents/caregivers of Junior Infant classes in multigrade schools?*

2. *What are the beliefs of teachers of factors in the multigrade class that constrain or support them in their efforts to implement early childhood pedagogy according to the sociocultural principles outlined in the Revised Primary School Curriculum (1999)?*

3. *How do Junior Infant pupils construct identities as learners in the multigrade classroom?*

4. *How are Junior Infant pupils positioned by the teacher, peers and older children within the classroom culture of multigrade schools?*

My intention in this concluding chapter is to draw together the thematic findings of the study and to discuss the broader significance of the research in terms of what implications there may be for classroom practice.

7.2 Teachers: Practices and Beliefs

This thesis investigated and analysed how early years pedagogy was constructed by teachers of Junior Infants in multigrade schools. Data from this study has highlighted significant differences in pedagogical approaches which remain dominant in educational discourses of primary schooling and these pedagogical approaches can be placed on a continuum. At one end are technical and conforming views which stress the authority and power of the teacher and at the other are transforming views which emphasise the teacher's role as facilitator rather than controller of curriculum. While these two approaches are at opposite ends, somewhere in between is a 'reforming society' position on early childhood curriculum which is concerned that the focus of education should be child-centred, with an emphasis on each child achieving her full potential as an autonomous individual.

My analysis suggests that although decisions made by teachers in the classroom are very practical matters, they are also philosophical matters because they are influenced by what teachers believe is important for young children to know and experience and how they believe it is best to teach them. Therefore, one of the clearest differences among teachers of multigrade classes was how they viewed the multigrade setting. In the survey responses three quarters of teachers reported that, if given a choice, they would prefer to teach Junior Infants in a multigrade class. The

reasons for this were often related to the presence of older children in the class as teachers believed older children were 'role models' who set a 'good example' in terms of behaviour which the Junior Infant pupils could 'imitate'. Although the dilemma of integrating a commitment to early years practice with the requirements of teaching older children was an issue, the mixed-age characteristic of their classrooms also added to the unique experiences of Junior Infants in multigrade settings. In addition, teachers also mentioned continuity, flexibility and the dynamics of social relations which are part of the multigrade setting as being reasons they had positive attitudes to the multigrade settings.

Teachers held various theories of how young children learn and develop and this was also seen to determine what was selected to be included in curriculum and how it was taught, including which classroom resources, organisational and pedagogical strategies were considered to be appropriate and the nature of the teacher's role and relationship with learners. It appears to me that the more effective teachers were those held affirming and positive attitudes to multigrade contexts and worked to create varied and multiple opportunities for younger children to participate in those classes. It was also the case in this study that these teachers had favourable pupil/teacher ratios.

The findings from this study support the extent of the impact of knowledgeable, competent and skilled practitioners on children's learning and development as the most valuable resource as part of constructing an enabling environment in the classroom is the teacher of Junior Infants. From the very beginning of the fieldwork, what struck me forcibly each time I visited a case study school was the uniqueness of each of the teachers and how significant their influence was on the school in general and on the lives of the children they taught. This effect was intensified as children remained with the same teacher over a prolonged period of three or four years. The powerful role that teachers played in shaping interactions and influencing learning opportunities through those interactions is highlighted in the two case study teachers Orla (Abbeytrasna N.S) and Jane (Scoil Eirne). The ability of these teachers to support joint participation of Junior Infant pupils and to be sensitive and responsive to younger children's ideas and feelings while being capable of managing multiple activities across grade levels was noteworthy. Their pedagogical approaches were characterised by an emphasis on the role of collaborative relationships in learning and an understanding that knowledge is not transmitted from

teacher to pupil in a unidirectional way but rather is collaboratively constructed by classroom members. At the interpersonal level, the process of guided participation (Rogoff, 2003) highlighted attention on the interpersonal activities of the classroom. Choosing material with regard to the knowledge of children's ZPD and with careful scaffolding, these teachers stretched children beyond their current capabilities.

A further two of the case study school teachers, Edel (Cashelbeag N.S.) and Ann (Kildubh N.S.) held less positive attitudes towards multigrade teaching, tending to adopt more formal modes of instruction. Patterns of interaction remained teacher focussed rather than child-centred and teacher directed models of pedagogy which concentrated on the older children were commonplace. Consequently, subject-based curricula that emphasised knowledge acquisition and which promoted a rigid approach with outcomes prescribed were the norm. Thus, all children in their classrooms were presented with an academic curriculum which was text bound and assessment driven. In addition, the findings from this research indicate that some of the Junior Infant children's learning experiences in these schools did not offer high levels of cognitive challenge or high quality adult-child interactions (Siraj-Blatchford *et al.* 2002). Also missing were instances of sustained shared thinking (Siraj-Blatchford & Sylva, 2004) where adults and children explore, problematize and co-construct understandings.

The group of teachers occupying the 'middle' of the continuum were interesting. These included Bridget (Ballyglen N.S.), Maureen (Drumleathan N.S.) Deirdre (Gortglas N.S.) and Martha (Scoil Rathóg). For these teachers there were clashes between their beliefs regarding the kind of classroom environments they wished to set up and which they regarded would be conducive to young children's learning, and the setting within which they had to operate. Thus, because of dealing with mitigating factors and challenges of the multigrade setting which will be expanded upon in the following section, they were at times unable to encourage agency, share pedagogic control and incorporate the interests of Junior Infants as they would have wished.

The tensions highlighted in this thesis are centred around formal versus informal learning, the role of play and the acknowledgement that early childhood education demands a somewhat different approach which is specific to the needs of younger children. Despite political endorsement of a play-based approach as critical to learning in the early years sector, the interpretation of play in practice in multigrade

schools reveals a complex and pessimistic picture. Evidence from this study further confirms the research tradition which has presented play in practice as controversial, suggesting constraints such as provision, adults' roles, parental expectations and top-down pressures as some of the reasons why play in classrooms is limited in frequency, duration and quality (Wood, 2014). In this study, considerable differences were found among teachers in the ways in which they saw the possibilities for implementation of play based learning activities.

In the Questionnaire Survey, teachers endorsed the benefits of mixed-age play experiences for younger children with the vast majority of respondents agreeing that Junior Infant children often engage in more complex and challenging play activities when involved with older classmates. However, my observations in case study schools showed that Junior Infant pupils played mainly with their peers rather than with older children in the classroom and that opportunities for play-based activities were centred around table-top activities which were repetitive and lacking in challenge. The presence of older children in the classroom did not mean that there was automatic mixed age engagement, but how teachers encouraged and structured activities to support children's interactions was a vital element which created the difference. In the main, play activities of Junior Infants did not tap into rich possibilities that mixed age play might offer. During the fieldwork period some of the case study teachers were aware that the Aistear: Early Years Curriculum Framework (2009) had been published but at that time had yet to engage with professional development in the area. Neither did they engage in conversation about the issues of play in the classroom which suggested to me that the issue of mixed age play was not a priority for them. Therefore, I believe this study raises particular questions about the value and meaning teachers place on play in multigrade classrooms.

Drawing on sociocultural and poststructuralist thinking I examined what it means for young children to play with older children in playgrounds and the children's experiences at play demonstrate the 'multi-scale' nature of their identities which are being formed at several levels at once (Wenger, 2010, p. 6). The data demonstrates that agency; power and interests of younger children are exercised or marginalised, specifically in relation to power relationships between younger and older children. The data illustrated variations in what and whose choices were allowed and in the types of play that were restricted. The findings further indicate different ways in which some children with older siblings exercise agency indicating

their funds of knowledge, a more confident disposition and a willingness to disrupt the rules of the setting in their ability to manage events and peers. For example, Megan's agency (Chapter 6, Section 6.3 Nexus of Multimembership) is expressed through her confidence to lead the play and invent new ways of playing the older children's games. Megan's identity comes to reflect the multiplicity of locations of identification that contribute to it. The sequential characteristic of multimembership is evident as Megan carries her identity across contexts but it is also simultaneous as she belongs to multiple communities at the same time (Wenger, 2010). An interesting theme which is evident in the research links play with issues of equity and diversity is gender. Gender emerges as another influence in shaping children's choices and in examining how individual Junior Infants constructed themselves as 'boy' or 'girl': it was evident that their perspectives influenced their play choices. In addition, how they chose to perform their understanding contributed to the further confirming of their gendered identities and practices.

Findings from the study suggest that the concept of multigrade and the implications for the pedagogy of young children is not understood clearly by parents. Because there are fewer teachers in the school and children remain with the same teacher over a number of years, parents and teachers build up relationships with one another. There is a perception, that because the school is small and the teachers and parents know each other very well, communication regarding pedagogy of young children may occur informally. There is often a sense of trust between teachers and parents which means that teachers may be left to get on with it.

A majority of parents from the case study schools were actively involved in a voluntary capacity in the school either in fundraising or helping out because they were conscious that 'numbers are small and you have to get involved really'. For local parents like Tricia and Yvonne (Cashelbeag NS) and Declan (Scoil Eirne NS), the school not only offers a vital service to the community it also represents a symbol of their community identity. These parents were of the view that parents should support their catchment school and that not to do so was divisive to the local community and could jeopardise the survival of the school

Because the small school is at the centre of their communities, there are several links between parents and school. I identified a reticence on the part of parents to engage in any critical discussion of teaching practices in multigrade classrooms as they tended to defend the school to me as an 'outsider' and appeared not question

what took place there. The discourse of parents was influenced largely by threats of closure and rationalisation and parents in general exhibited a strong loyalty to their school. Only one parent interviewee, Valerie, (Drumleathan NS) herself having been born and having attended a primary school in another country questioned the benefit of multigrade classes for younger children. She alone problematised the issues of lack of time and large class sizes and the issues that may occur as a result. Parents readily agreed with the discourse that younger children will 'pick up' naturally from older children and none of my parent interviewees questioned the graded approach to pedagogy which was dominant in most classrooms.

Research indicates however, the choices that some parents make about schools suggest that the significance of loyalty to the local school may be in decline. There may be a difference in how long-term rural residents (locals) and people who have moved into an area (newcomers) make choices about schools (Walker & Clark, 2010). There were hints of this difference in view among the parents I interviewed in this study. For Mary (Kildubh NS), for example, a newcomer parent, school choice was linked to lifestyle and the decision to live in a rural area. She and her family had moved from a large city so as the children could attend a small school. Also, Sandy (Abbeytrasna NS) who lived outside of the catchment area of the school to which she wished to send her child, engaged in a costly and time-consuming school run in order to exercise choice in relation to a smaller school. Abbeytrasna NS was perceived by her to be unique and better because of its small size and caring family atmosphere. This sentiment was in keeping with Walker & Clark's (2010) research suggesting there are the three reasons - small school size, caring school atmosphere and individual attention - as the most significant variables that attracted them to choose a rural school. However, in contrast to Walker and Clark's, (2010) findings, I did not find any significant difference in the level of allegiance to place shown by local parents compared with newcomers. All parents in the interview, who referred to it, underlined the important position that the school held at the centre of the community where they lived. Nevertheless, newcomer parents like Sandy and Mary show how the market-driven education system may encourage parent consumers to be motivated by self-interest.

For parents who attended a small school themselves, their choice of school was often tempered by their own school experiences and these parents believed the smaller the class the more attention and care children receive. Some of the parents

interviewed had been past pupils of the schools their children attended and they harboured a desire to give their children the same type of childhood and education they had had themselves.

7.3 Multigrade Context: Operational Challenges and Dilemmas

The findings point to the contention that the role and workload of the teacher in multigrade classes is significant. A great majority of teachers report on time pressures within the job but an increase in diversity, meeting special needs, large class sizes, high pupil/teacher ratios, and planning/organisation of tasks intensify the complexities of the multigrade setting. Alongside this there is a greater investment in time required to address the needs of a diverse group of children who differ significantly in age, cognitive, social and emotional levels. This research shows that it is managing this diversity that makes the job most challenging.

Challenges described in this research in the complex work of Junior Infant teachers, highlight concern for the amount of time needed to interact with all children in the class. Time is needed to co-construct meaning alongside the children in order to understand their experiences and encourage learning. In this research study, some teachers noted that while the curriculum provided guidance, it also had an impact on their freedom to teach in particular ways. Some teachers interpreted the curriculum in very prescriptive ways and this led them to believing that the multigrade context interfered with their attempts to teach to and for specific outcomes. Findings with regard to class size suggest that larger class sizes in multigrade schools may make it more likely that transmission teaching will take place with teachers feeling pressurised into using more direct forms of teaching with less emphasis on active learning and consequently fewer opportunities for pupils to explore ideas and negotiate understandings. The present climate of increasing class size in smaller schools is likely to further perpetuate unequal access to the kinds of exploratory activities which have been identified as being valuable in children's learning.

In the research findings of this study, attention is drawn to how teachers when confronted with a classroom of diverse learners without support or insights into its operation, often drew on cultural legacies and understandings about age and grade levels in relation to their pupils. In WSE and WSE-MLL reports there is very little reference to any terms associated with pedagogy in multigrade classes and where mention is made the references are vague and ambiguous. Findings from the study

indicate that teachers revert frequently to class based instruction this going unchallenged for the most part in WSE and WSE-MLL Reports.

The findings of this study which showed that teachers in general had little commitment to mixed age learning were similar to other research conclusions (Veenman, 1995). In the Questionnaire Study, cross age tutoring was the least used of all grouping strategies. My findings suggest that institutional context is vitally important and finding the space to implement collaborative pedagogic practices is a highly complex matter for teachers. A minority of teachers demonstrated that it is possible to promote mixed age classroom environments which develop pupils' sense of belonging and a sense of togetherness within the constraints outlined. However, these were the smallest classes and the children were supported by at least one other adult in addition to the teacher. These teachers promoted pedagogic practices based around mixed age, group work tasks which enabled all children to contribute to the emergent outcomes of an activity and to collaboratively reach a consensus on the nature and purpose of the task at hand. This practice promoted respectful intellectual relations and through which children acquired methods of communication and support. Therefore, what emerges from research findings is a picture of a learning environment which affords both opportunities and constraints both for teachers who practise there and for Junior Infant children who wish to gain access to the learning therein.

7.4 Children: Developing Identity as Learners

Wenger (2010, p. 5) asserts that 'Learning can be viewed as a journey through landscapes of practices' and this study of identity formation reflects the landscape in which the children, their parents and teachers lived and their experiences of it. The community of practice in each classroom was seen as a group engaged in sharing practices which included, for example, reading, discussing, playing and writing. Junior Infants, as apprentices, developed knowledge about these practices and developed their expertise through observing more experienced older children and adults and through being gradually permitted to take a more central part in the activities of their classrooms. Junior Infants began their apprenticeship by contributing in peripheral ways to the practices of their groups and if successful, they moved on to become full participants. The study highlighted patterns of differential participation whereby some pupils consistently engaged while there were others

whose input was limited to more passive interactions. However, in order to be accepted as full members of their classrooms, it was important for Junior Infants to display certain characteristics and behaviours. These behaviours and characteristics varied for different children. The voices of the Junior Infants conveyed that there are a variety of needs, interests and experiences in each classroom. Some pupils prefer to stay in the background, creating quieter and more private ways of making meaning whereas others quickly find their way to more central positions becoming more active and visible. However, the opportunity to position oneself is not always a choice, but is influenced by situational, cultural and gender-related factors. Therefore, the struggle for ways of being and becoming learners in these classrooms is necessarily a question of power which is exercised between children and adults and also between children and the older children in the class.

The data presented also showed how the identities of individual Junior Infants within the figured world of a multigrade class were constructed by their participation in a range of activities. All the children played an active part in negotiating their position in the classroom micro-cultures but these negotiations were not arbitrary. Positional identities of young children in this study are to do with the everyday relations of power and conflict was seen as a part of the identification process. They could take up, resist and manoeuvre around the positions which were being offered or denied to them. In this sense identity is shaped both 'inside-out and outside-in' (Wenger, 2010, p. 6). However, identification activity ultimately took place in relation to the identity resources available to them and so there were different possibilities for children to position themselves as expert or apprentice 'knowers' which in turn gave rise to varying opportunities for children to access the status, authority and power of expertise.

Running parallel with children's relations with teachers were those with their peers and the older children in the classroom. Findings note how Junior Infant pupils strategically deployed a variety of identity constructs to slip through gaps created by tensions between older and younger children. I identified significant differences in how individual Junior Infant pupils negotiated multimembership of several, overlapping communities of practice. Some pupils were more successful and progressed on their trajectory to developing a nexus of multimembership more smoothly than others. Identity is seen to arise out of a constant becoming in a learning

trajectory and successful children in this sense were those who had strong social and academic skills and often had strong bonds with their older siblings who were pupils in the same classroom. Because children's identities are constructed in the social contexts of the classrooms and school playgrounds they become defined with respect to the interaction of multiple, convergent and divergent trajectories. The findings of the case study also demonstrate that in the multigrade setting Junior Infant pupils being the youngest children will always have somebody older to look up to and to compete with and so a more complex response to positioning is required from them. Therefore, Junior Infant children will have to locate themselves in powerful positions not only among their peers, but also among the older children in their classroom. Children remain in the same multigrade classroom for three or four years and therefore the consequences of a pupil's positioning within this environment will likely be far-reaching in terms of their knowledge of the regime of competence of the community and the shaping of their future participation in classrooms.

By combining sociocultural and poststructural theories, a more complex conceptualisation of identity has been proposed which merges individual, social and material influences regarding how Junior Infant children learn to use and resist strategies and techniques of power. Children are social actors (James and Prout, 1997) and their capabilities in exercising agency include their ability to create and interpret for themselves their social and cultural worlds. Children specifically use opportunity away from the teacher's gaze to challenge boundaries and establish their own. Children also exercise agency by surreptitiously wearing down adult intentions by engaging in activities such as working slowly or carelessly, not concentrating, losing books and copies. I suggest that Junior Infants may have increased opportunity to engage in such behaviours in a multigrade class. Individual and group agency is thus permeated with power and is expressed through children's peer cultures, social relationships and their webs of influence (Devine, 2003).

My data analysis also shows that pupils in the case study schools drew on discourses of gender dualism in negotiating identity. In the school yard in particular, the boys were seen to establish and reproduce local practices of hegemonic masculinity and to enact practices in football and super-hero games. Younger boys were also seen to learn about masculinities within communities of practice by taking part as legitimate peripheral participants in the activities of older, more established boys in their schools and within the power dynamics of the community they

developed a sense of what 'regime of competence' existed in the community and who qualified for it (Wenger, 2010, p. 3). Identification with the regimes of competence made the young boys accountable to the community and more vulnerable to its power plays. The Junior Infant girls were not so obviously developing their femininities in the playground, but were in the context of classroom interactions and behaviours. This appeared to cause difficulty for some girls (e.g. Ava in Cahelbeag NS) who didn't identify strongly with her peers in the Junior Infant class. Dis-identifying with school -based accountabilities meant a loss of power for these children as they were not accountable to the regime of competence of their communities.

7.5 Challenges for Practice and Policy

The wider implications of the research and its practical application in early childhood education are considered here. While the small scale of the present study is acknowledged and it is important to be cautious in recommendations, there are professional implications that reach beyond the local.

Re-imagining Understandings of Pedagogy

The move to learning and teaching shaped by sociocultural theories should generate new participatory roles, structures and processes in classroom learning communities. The increased focus on sociocultural contexts as including power relations and the enactment of these in multigrade settings should lead to teacher interaction aimed at ensuring equity of opportunities for participation and shared meaning making. Whilst the collaborative dimensions of learning between children of different ages was highly valued and recognised in some classrooms, the research findings highlight the need for extensive pedagogical skill development in this area. There is a need for increased focus on the interactive roles of adults as they engage with children to co-construct knowledge, promote challenge and support learning that is both socially and conceptually complex.

Reflecting Moyles *et al.* (2002) research, teachers in this study were much more comfortable discussing practice than they were describing what guided this practice. It is important for teachers to embrace the language of pedagogy and to develop confidence in exploring and reflecting upon their pedagogies. With current national focus on multigrade schools and imperatives to improve both the quality and outcomes of early years education, there is an increasing need for opportunities for

teachers to reflect on multigrade contexts and their role in these classrooms and to consider the challenges, complexities and problematic nature of these contexts. Armed with clearer understandings of what constitutes positive multigrade pedagogy, its potential and effectiveness in promoting children's learning, teachers would then be well placed to engage in pedagogical debates in the broader field of early childhood education. This will require teachers of multigrade classes to be clear about how teaching and learning can be best accomplished.

To be advocates for mixed-age learning, teachers need comprehensive and sophisticated understandings grounded in research as well as practice that reflect relevant social and cultural contexts. Once teachers step outside developmental, age-based concepts of childhood, alternative understandings of capable children emerge. Further development of pedagogies that recognise the complexity and diversity as well as the challenges of multigrade classrooms coupled with the ability to adopt different versions of teaching and learning and to make curricular links, given the specific learning needs of young children is required.

This study has raised questions about the professional knowledge, understanding and repertoire of pedagogical skills in relation to play that teachers of Junior Infants require so they can make informed decisions about implementing a play-based early years pedagogy in multigrade contexts. The findings from this study would support the postmodern discourse of questioning truths or accepted conventions, advocating the need for teachers to begin to question and propose possible alternatives to their everyday practice. They can then permit themselves to question established truths and practices within early childhood education and actively engage in review of their pedagogy. In particular the findings draw attention to the need for a wider conceptualisation of the importance of children's play in classrooms not only in relation to Junior and Senior Infants, but opportunities for play for older children and teachers facilitation of such play needs to be also addressed.

In this research, I critically explored the views of parents with regard to the pedagogical practices of teachers of Junior Infants, identifying ambiguities in their views which demonstrated that while the parents showed strong rhetorical support for younger learners in mixed age settings this was not matched by their knowledge of what was actually happening in reality in the classroom. Findings from the study signpost a need for addressing the current dearth of information for parents about the workings of a multigrade class.

Findings would also suggest that even parents who would appear to be empowered to approach teachers would not do so and rather limit themselves to roles of fundraising and helping out with non-educational activities. There is a need for parents to engage with the tensions that exist with facilitating the active participation of younger children in an increasingly academically-oriented domain of multigrade classes. In the midst of these tensions, there is a need for parents to engage and problematize so as they can understand and support their children in such classrooms.

Learners Re-shaping Identities

In this study, the children were capable informants and valid contributors to knowledge about their lives and the findings demonstrate the sophisticated understandings they have constructed about their classroom interactions. Not only do these findings challenge prevailing narrow, developmentalist (mis)assumptions about children's capacity for complex thought, they also draw attention to the importance of ascertaining and incorporating children's conceptualisation of pedagogy into policy development and classroom practice.

The findings of this research point to several means of encouraging teachers to examine methods to support the participation of Junior Infants in the multigrade classroom community. What appears to be pertinent is the provision of purposeful, meaningful activities which are based on the strengths and interests of the Junior Infant pupils. Mediation of these activities by adults is best negotiated through a judicious combination of individual, small group and whole class activities. Crucially, we need to consider how much space is made available for sustained shared thinking co-constructing learning and balancing opportunities for both adult-led and child-led activities. Learning can only be made accessible to all Junior Infants in a participatory pedagogy which encourages exploration, negotiation and ownerships of knowledge. Essentially, learning relationships can be cultivated by being in relationships of trust and respect with young children as, without such relationship, pedagogy becomes a recipe for compliance rather than for the promotion of learning. Moving to a more equitable early years education for all Junior Infants may require teachers to pay more specific attention to their own strategies in foregrounding young children's personal learning trajectories, which in turn creates further possibilities to adjust pedagogy for individual children.

This study suggests that mixed-age learning opportunities can be used to assist Junior Infant pupils in negotiating wider access to the curriculum. In whole class activities teachers may explore opportunities for inviting and easing children's attention to and participation in the world of the classroom without losing the attention of the older children. In small mixed age group activities younger children benefit from an interactive space where their interpretations are valued and where they can build on their current state of knowledge and ways of being and doing (Payler, 2007). By encouraging children to develop habits and identities of participation in which they engage in shared learning contexts teachers move toward developing communities of belonging in multigrade classrooms.

Re-shaping Multigrade Policy

Findings point to a considerable gap between policy and practice in multigrade contexts. Documents such as UN Convention on the Rights of the Child (1984) and initiatives such as the National Children's Strategy (2000), Aistear (2009) and the Primary School Curriculum (1999) show the child as an active agent in her learning where they are seen as developing within a sociocultural context as meaning makers, as co-constructors rather than reproducers of knowledge. These documents afford equal importance to what the child learns and to the process of learning. However, teachers of Junior Infants in multigrade classes are limited by school culture and feel pressurized into teaching in a didactic way because of large class sizes, disproportionate pupil/teacher ratios and an objective-led interpretation of the curriculum. There needs to be greater recognition on the part of policy makers of the unique dynamic of multigrade contexts which may need special resources and training to enable teachers to implement early childhood policy adequately in classrooms.

Learners in classrooms do not necessarily participate in classroom activities on an equitable basis. The data presented here demonstrates how class size may influence and shape the nature of Junior Infant participation. This thesis argues that Junior Infants who are beginning the journey through primary school require both opportunity to draw on their own experiences and induction into new ways of participating in the world of the multigrade classroom. A negotiated entry into the curriculum will require both time and adequate support of sensitive, responsive adults. Inadequate adult support in multigrade classrooms, may contribute to a situation where pupils are positioned in and take up identities of passivity, resistance or

avoidance. This distinction appears to become more pronounced in larger classes where there is a necessity to formalise the class groups. This thesis highlights the need for reduced class size and a commitment to improve pupil: teacher ratios. Furthermore, if equality is held to be a foundation for a country's education system, one might reasonably assume that the maximum size of a multigrade class would be clearly defined at a national level.

Finally, the findings of the study suggest that while Aistear (2009) traverses preschool through infant classes, limited teacher awareness and lack of interest means that it is not affecting the quality of children's experiences in multigrade schools. It is suggested that further research into the area of implementing Aistear (2009) in multigrade settings is needed to improve understanding of the Framework. Examples of good practice and facilitating the dissemination of this practice would be valuable in this regard. Critical examples of practice and theory have the ability to shift pedagogical ideas by illustrating real life teaching scenarios and educational passion in practice. Looked at more carefully, practice that might enable teachers to consider educational priorities for younger children and how they interact with children on a daily basis could be examined. I would advocate that there must be recognition on the part of policy makers of the impact that teachers' role has on the lives of young children as well as the need to celebrate diversity and promote the principles of equity.

7.6 My Contribution to the Field

Striving to understand how sociocultural views of learning might be practised in multigrade classroom settings has clarified and extended the knowledge base as reviewed in Chapter 2. In particular, this study has explored the sociocultural principles underpinning community of practice (Lave and Wenger, 1991, Wenger, 1998), formation of identity (Wenger, 1998, Holland *et al.,* 1998) and positionality (Holland *et al.,* 1998) and further developed these to inform how Junior Infants participate in Irish multigrade classrooms. The use of Rogoff's (1990, 1998, 2003) institutional, interpersonal and personal lenses has further confirmed them as a valuable tool to examine the complexity of children's transformation of participation.

This thesis also makes a contribution to the literature on power in schools showing that power in the classroom as an ambivalent force constraining at the same time as it enables and which is continually negotiated by both older and younger

pupils and teachers through a series of tactical techniques (Foucault, 1979). I highlight how some younger children position themselves as agentic, choosing to use possibilities afforded to them and carrying through their choices thereby exerting some influence over the events that took place in their daily school life.

This study has identified the constraining and enabling factors in the development of sociocultural practice in multigrade classrooms and the research has shown how sociocultural theory can provide teachers of multigrade classes with new perspectives from which to reconsider their practice. The research emphasizes that it is very important for teachers and policy makers to analyse how young children in multigrade classes learn practices both from each other and from older children in the classroom. In attempting to understand how and why young children take up such positions, we can begin to provide support to enable them to participate fully in their learning.

7.7 Final Words

Currently, there is resurgence in discourse surrounding small schools informed by economic rationalisation which often leaves these communities feeling disempowered and despondent. Education services cannot be considered in isolation: the effect on other aspects of community provision must not be undervalued. The fear is that if there is no school in a locality, other services such as shops and post offices also tend to disappear, and without these services young parents are less likely to seek a home in the area. A small school is seen as a sign of hope for the future. With a school new families and children will move into an area whereas if a school is closed the attraction to bring up a family in that area is diminished. It is also the most fragile communities, linguistically and culturally, that are most likely to suffer from such closures. There are times, of course, when there is no other option but to close a small school. However, we need to know much more about the effects and there is need for longitudinal, comparative research to explore whether patterns and qualities of life, local economy, institutions and inward and outward migration differ in rural communities which retain their schools differ from those which lose them.

In September 2014, a new primary school opened in Dublin with just one pupil, while almost 40 other small schools had a reduction in teacher numbers due to increases in the minimum numbers needed to maintain staffing levels. Such comparisons point to anomalies in the system and have led to requests by the INTO for the Government to consider looking at projected enrolments in schools over time

rather than one year's enrolment alone (Murray, 2014). Looking into the future there are many individual schools that will seek ways to negotiate and at times resist this discourse attempting to find a place in which to exist without the threat of amalgamation and closure. These small schools and their multigrade classroom communities deserve support based upon more informed sensitive policies than are presently apparent.

Teaching a multigrade class is a very complex activity. Effectively, a class with an age-span of greater than one year requires a multi-year curriculum plan which needs to be skilfully organised in all subject areas and resourced to cater for the extended age-range and the extremely wide ability, experience and interest spread of the pupil group. However, this study indicates little official commitment to preparing teachers for, and advising them on, multigrade teaching. It also seems that, little to no differentiation is made between single and multigrade classes in official curriculum statements, guidelines and advice, while textbooks remain overwhelmingly grade-based.

Competent motivated teachers who feel good about themselves as teachers and about their pupils as learners in multigrade classes are the teachers who are most likely to promote high standards in schools and ultimately contribute to the development and enhancement of the societies in which they work. It is hoped that this work will offer a lens through which teachers could examine the social construction of learning and teaching in their classrooms and hopefully scope the way for more learner-centred and reflective pedagogies in contemporary multigrade classrooms. Within the multigrade class itself this research delves into the exceptional detail of a teacher's interactions with young children and deconstructs the complexity of the roles played by teachers. Ultimately, this will offer insight into the lived world of these classrooms and demonstrate the breadth and depth of knowledge required to enact multiple roles and engage in informed skilful pedagogical practice in the early years of the primary school. Whilst there are constraints facing teachers in multigrade settings, it is essential to discard the deficit model and acknowledge that transformation can potentially be achieved.

In conclusion, I hope that the research findings from this thesis serve to begin dialogue and inspire further research in various multigrade educational school contexts. Although there is some speculation that the 'Small Schools Review -Value for Money' Report which is due for publication will suggest that schools with less

than 80 pupils who are located close together should consider immediate amalgamation (Kelly, 2014), multigrade classes, whether in large or small schools will continue to be an important part of the Irish school system. It is therefore imperative that such classes are accepted in their own right, regarded as an integral part of the communities they serve and given adequate support to develop their educational provision.

Wenger (2010, p. 14) notes that 'One of the challenges of a social discipline of learning is to understand and develop transversal processes and roles'. It is hoped that my analysis of the 'thin line of intersection' (Ibid) between the vertical and horizontal planes has increased the visibility and enhanced understanding of the landscape of the multigrade classroom to better facilitate for all pupils the "dance" referred to below.

> *In a complex landscape, trajectories of practice and identity do not evolve in parallel. The two act as distinct but interdependent carriers of knowledgeability across time. Learning takes place when they dance.* (Wenger, 2010, p. 7)

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Appendix 1: Information Letter for Principals and Boards of Management

Dear Chairperson/Principal,

I am a primary school teacher currently doing research for my PhD in University College Cork. As part of this, I will be undertaking a study of Junior Infant pupils in

In this school year, I will be collecting research data in two and three-teacher schools. I would like to spend some time in the classroom observing and talking to the children and I would also like to interview their teachers and parents if possible. I would hope to spend approximately three mornings or afternoons per term in each school.

I have enclosed an information leaflet to give further details about the study. I would also like to assure you that the identity of the teachers, children and the school will remain confidential at all stages of the research project and in any subsequent reports or publications. I would be very grateful if you would consider giving permission for to participate in this research study.

If you have any concerns or require any further information please do not hesitate to contact me. Thank you for taking the time to consider the project.

Yours Sincerely,

Sharon O'Driscoll

INFORMATION LEAFLET BOARD OF MANAGEMENT

Research Topic:
Exploring early years pedagogies in multigrade classrooms

Researcher:
Sharon O'Driscoll (PhD Student). Telephone:

Research Supervisors:
Dr. Mary Horgan Telephone:
Dr. Maura Cunneen. Telephone:

Background: I am currently doing research for my PhD in University College Cork. As part of this, I will be undertaking a study of junior infant children in multigrade classes (i.e. a class where there is one teacher for several grades). In order to explore this issue I would like to spend some time in the classroom observing and interviewing the children and their teacher. I would also like to invite parents of junior infants to take part in a group interview about their children's experience of learning in the multigrade classroom.

Why has our school been asked to participate in this research study? A variety of two and three teacher multigrade schools have been chosen for this research study. Teachers, pupils in the junior infant class and their parents are being asked to participate. The identity of the teachers, parents, children and the school will remain confidential at all stages of the research project and in any subsequent reports or publications.

What happens if our school takes part in the research study? I would like to spend approximately three mornings or afternoons per term in the school. I would like to make observations of the children in their learning situation and to take field notes. I will use pseudonyms for the names of the teacher and the children. The field notes will be destroyed one year after the thesis has been examined.

What will happen to the results of the study? The information from the research study will give a picture of life in the multigrade classroom from the perspective of the child in junior infants. The study's results will form the basis of a thesis and also may be published in academic journals and presented at academic conferences. However, at no point will any individual or the school be identifiable.

Confidentiality: Interviews with the children and their parents will be recorded and the recordings will be transcribed as word documents. All identifying information will be removed (e.g. names, places) from these documents. The recordings will be erased once the thesis has been examined. Only the anonymous transcripts will be kept and these will be destroyed after 1 year. Some quotes may be used in the research report but no teacher's, parent's or child's identity will be reported.

Voluntary Participation: It is up to the Board of Management to give permission for the school to participate. Participation is completely voluntary and teachers, parents and children are free to withdraw at any time.

Further Information: If you require any assistance or have any questions about the research study please feel free to contact me or my supervisors (contact details above)

Thank you very much for supporting this research study

BOARD OF MANAGEMENT PERMISSION FORM

Research Topic:
Exploring early years pedagogies in multigrade classrooms

Researcher:
Sharon O'Driscoll (PhD Student). Telephone:

Research Supervisors:
Dr. Mary Horgan Telephone:
Dr. Maura Cunneen Telephone:

The Board of Management has read the information in the attached letter and understands what the involvement of the school will be

The Board of Management agrees that research data may be published in a form that does not identify teachers, parents, children or the school in any way.

The Board of Management agrees to participation of the school in the research.

Name: Chairperson Board of Management
Signature: Date:

Appendix 2: Consent letters for Teachers and Parents

A chara,

I am a primary school teacher currently doing research for my PhD in University College Cork. As part of this, I will be undertaking a study of Junior Infant pupils in multigrade classes.

In this school year I will be collecting research data in two and three-teacher schools. I would like to spend some time in the classroom observing and talking to the children and I would also like to interview their teachers and parents if possible. I would like to assure you that the identity of the teachers, parents, children and the school will remain confidential at all stages of the research project and in any subsequent reports or publications.

I would be very grateful if you would consider taking part in this research study. Please find enclosed an information leaflet which outlines the research study. Please do not hesitate to contact me if you have any further queries or concerns. Thank you for taking the time to consider the project.

Mise le meas,

Sharon O'Driscoll

INFORMATION SHEET FOR TEACHERS/PARENTS

Research Topic:
Exploring early years pedagogies in multigrade classrooms

Researcher:
Sharon O'Driscoll (PhD Student). Telephone:

Research Supervisors:
Dr. Mary Horgan Telephone:
Dr. Maura Cunneen. Telephone:

Background: I am currently doing research for my PhD in University College Cork. As part of this, I will be undertaking a study of junior infant children in multigrade classes (i.e. a class where there is one teacher for several grades). In order to explore this issue I would like to spend some time in the classroom observing and interviewing the children. I would also like to invite parents of junior infants to take part in a group interview about their children's experience of learning in the multigrade classroom.

Why have I been asked to participate in this research study? Teachers of the pupils in the junior infant class are being asked to participate in this research study. The identity of the teachers, parents, children and the school will remain confidential at all stages of the research project and in any subsequent reports or publications.

What happens if I take part in the research study? I would like to spend approximately three mornings or afternoons per term for one year in the school. I would like to make observations of the children in their learning situation and to take field notes. I will use pseudonyms for the names of the teacher and the children. The field notes will be destroyed one year after the thesis has been examined.

What will happen to the results of the study? The information from the research study will give a picture of life in the multigrade classroom from the perspective of the child in junior infants. The study's results will form the basis of a thesis and also may be published in academic journals and presented at academic conferences. However, at no point will any individual or the school be identifiable.

Confidentiality: Interviews with the children and their parents will be recorded and the recordings will be transcribed as word documents. All identifying information will be removed (e.g. names, places) from these documents. The recordings will be erased once the thesis has been examined. Only the anonymous transcripts will be kept and this will be destroyed after 1 year. Some quotes may be used in the research report but no teacher's, parent's or child's identity will be reported.

Voluntary Participation: It is up to you to decide whether you are going to take part or not. Participation is completely voluntary and you are free to withdraw at any time.

Important: The consent form: There is a consent form attached to this information sheet which must be signed. Please note that research practice guidelines do not allow any exceptions and verbal permission cannot replace the signed consent form.

Further Information: If you require any assistance or have any questions about the research study please feel free to contact me or my supervisors (contact details above)

Thank you very much for supporting this research study

CONSENT FORM FOR TEACHERS/PARENTS

Research Topic:
Exploring early years pedagogy in multigrade classrooms

Researcher:
Sharon O'Driscoll (PhD Student). Telephone:

Research Supervisors:
Dr. Mary Horgan Telephone:
Dr. Maura Cunneen. Telephone:

I have read and understood the information in the attached letter. Any questions I have asked have been answered to my satisfaction.

I understand what my involvement will be. I understand that my participation is voluntary and that I am free to withdraw at any time if I choose to do so.

I understand that the researcher will be take field notes and that afterwards these notes will be destroyed. I understand that no identifying information will be used in these notes.

I agree that research data may be published in a form that does not identify me or the school in any way.

I agree to participate in the research.

Name:

Signature:

Date:

Appendix 3: Observation Schedule

Target Child Schedule

Child's Initials:	**Sex:**	**Date:**	**Time**:
Activity Record	**Language Record**	**Task**	**Social**
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

List of Abbreviations

Language Code	**Social Code**
TC Target Child	SOL Solitary
C Child	PAIR Two people together
SNA Special Needs Assistant	SG Small Group
T Class Teacher	CG Class Group
LS/RT Learning Support/Resource Teacher	WC Whole Class
→ Speaks to	
Task Code	
LMM Large Muscle Movement	PRE Pretend
LSC Large Scale Construction	IG Informal Games
SSC Small Scale Construction	GWR Games with Rules
ART Creative Activities	MUS Music
MAN Manipulation	PALGA Passive Adult Led Group Activities
ADM Adult Directed Art and Manipulation	SA/AWG Standing Around Aimless Wander/Gaze
SM Structured Materials	W Wait
WAL Watching and Listening	DA Domestic Activity
T DIR Teacher teaching formal curricular	WRIT Completing written tasks

area	
OT Off Task	

Sample Completed Observation Schedule

This is an observation from a Maths lesson in Cashealbeag NS. The Junior Infants are completing a matching exercise in workbooks.

Child's Initials: *D (David)* **Sex:** *M* **Date:** *23/1/11* **Time**: *11:50 am* **Other Pupil Initials:** *A(Ava), J (John)*				
Activity Record	**Language Record**	**Task**	**Social**	**Class**
1.TC at whiteboard, some jostling for places at the front		W	CG	T explains activity to 2nd class
2. TC looks at T, demonstrates matching on whiteboard. Makes a mistake but self corrects	T→TC: What do you think you need to do? C: Match people to cars T→C: Ah give him a chance T→TC: You didn't get any go	T DIR	CG	Senior Infants wait. 1st and 2nd do activity set by teacher.
3. T. opens each book on the correct page, gives books out, TC waits	T→CG: Colour them in nicely	T DIR	CG	Senior Infants wait. 1st and 2nd continue with activity
4. TC returns to table, takes out pencil case, asks A. Question sharply, sharpening pencils matches	T→CG: Have you started yet? TC→C: Look at them, they're not pared	ADM OT	SOL	T→CG: Senior Infants come up here to the board and I will go over that with you
5. T corrects,	T→TC: Go through these, show me where you joined 2 to, count them for me. TC→ T: 1,2. T→ TC: Look you put 5 above that one. That's right but you made a mistake first.	T DIR	PAIR	Senior Infants engage in workbook task Teacher looks around at Junior Infants, goes over to TC's desk
6. TC colouring in, A. tidies D's pencil case	TC→ C: Is that good colouring? What the heck are	ADM		A child from older class has brought the roll book for the

TC grabs pencil sharpener, gets out of seat, walks to another child's seat TC returns to seat, points to his book Resumes colouring in.	you doing? Topper doesn't go in there, I'm using the topper and rubber. TC→C: Johnny, what page are you on? TC→A: Get out of my way. Where's my orange?	OT ADM		teacher to complete. She calls out each name in turn.
7. TC goes to teacher's desk, waits	C→TC: Leave that alone	W		
8. TC moves plastic counters on teacher's desk, T explains next page to TC	T→TC Good boy stay inside the line. Now I'm going to move you on to a new page of the workbook.	OT T DIR		T helping a child in 2nd class at his desk, comes back to her desk.
9. TC Walks towards seat, stops at J's seat, returns to his own seat, begins to write	TC→C: Johnny do you want to play a jail game outside and the food game?	OT ADM		Noise levels rise as all class groups complete their activities.
10. TC looks into A's book, asks aggressively	TC→C: Who writ (wrote) that? C→TC: You!	OT		Some children tidy up. Two more gathered at teacher's desk.

Appendix 4: Interview Schedule for Teacher Interviews

Interview Guide for Teachers

Introduction

How did you come to teaching in the multigrade school?

What was your own school experience as a pupil? Do you remember anything of your time in infant classes?

Have you experience of teaching in other types of classroom settings

Teaching in the Early Years

What do you think is 'ideal' learning experience/environment for children in the early years of primary school e.g. integrated, informal, collaborative, use of concrete materials?

What challenges do you experience in teaching subject areas of the infant curriculum e.g. Maths?

How do you think the needs of Junior Infants differ from the older children and how do you try to facilitate these needs in a multigrade setting?

Play

With the publication of Aistear there is an increased emphasis on children learning through play in the infant classroom. What do you think about this?

What are the opportunities for play in the classroom? Are there effects on the play engaged in by Junior Infants because of unique opportunities/lack of opportunities?

I noticed younger and older children playing/not playing together. Is this the norm in the class/playground? Why do you think this happens?

Classroom grouping

I notice you teach whole class groups/class groups/small non-class groups/individuals quite a bit? Why do you think that works well in the multigrade class?

I haven't seen any Art/Drama/Science/ PE etc. Do you find you organise the class differently according to these subject areas?

Levels of interaction

Are you happy with the levels of interaction between older children and Junior Infants in your class?

To what extent do you think the family like atmosphere in the school influences the social interaction between children in the class?

Do you think certain children (children with no siblings, older siblings in class, eldest in family) benefit more than others from the multigrade class? In what ways?

What influence do you think other factors (e.g. whole class size, size of individual classes, balance in numbers of older/younger pupils, gender of pupils) have on social interaction

Are there ways you would like to be able to adapt the multigrade class to improve learning opportunities for younger children?

What is your opinion on cross age tutoring i.e. older children tutoring younger children? Have you tried it? Why/why not?

Advantages/Disadvantages

What are the advantages for Junior Infant pupils being taught in a multigrade class?

What are the disadvantages for Junior Infant pupils being taught in a multigrade class?

Which of the aspects of teaching in a multigrade class do you find particularly satisfying?

What improvements would you make that you think would enhance learning opportunities for children?

Appendix 5: Interview Guide for Parents

Interview protocol for parents

Thank you very much for participating in this work. This is a study of how children in junior infant classes experience learning in a multigrade class. It is concerned with the views of a range of people including teachers, parents and children.

All the information I am collecting is confidential. This means that all participants in the study are rendered anonymous and neither they nor the schools concerned will be identifiable in the study. Real names are not used in analysing or reporting the findings of the pilot phase of the study.

I anticipate the interview will last no longer than 30-40 minutes. If you are willing I would like to audio record it. I will also take notes just in case the recorder fails at any point. There are five broad themes which I hope we could look at. Please feel free to add in topics I may have forgotten but which you think would be useful to the study.

Background

- How did you make a decision about which school to send your child to?
- What type of school did you attend?
- Were your experiences of multigrade school positive or negative?

Benefits

- What aspects of school does your child enjoy?
- What are the benefits of the multigrade school for the child beginning school? For an only child? For an eldest/youngest child?
- In your opinion what would be the main advantages for a junior infant in the multigrade class in terms of their social development? In terms of their learning?
- What do you think are good ways of helping young children progress in the multigrade class?

Concerns

- What concerns did you have about your child going to primary school?
- What concerns were particular to him/her entering a multigrade primary school?
- What does your child find difficult about being in a multigrade class?
- What are the concerns your child reports to you about school?
- In your opinion what would be the main obstacles to learning a child might face in a multigrade class?

Parental involvement in school

- What support would you give your child at home?
- What would be your involvement in school as a parent?

School year

- Describe how your child settled into school? Did being in a multigrade school impact on their settling in?
- Do you think your child's experience of multigrade school has influenced your child in a certain way over the course of the year?

Finally, is there anything about junior infants in the multigrade class which we have not yet talked about but which you think is important to mention?

Thank you again for your time. It has been very interesting.

Appendix 6: Parental Consent Form and Child Assent Form

CONSENT FORM FOR CHILD INTERVIEW

Research Topic:
Exploring early years pedagogy in multigrade classrooms

Researcher:
Sharon O'Driscoll (PhD Student). Telephone:

Research Supervisors:
Dr. Mary Horgan Telephone:
Dr. Maura Cunneen. Telephone:

I have read and understood the information in the attached letter. Any questions I have asked have been answered to my satisfaction.

I understand what my child's involvement will be and I am happy that they understand what is involved. I understand that participation is voluntary and that my child is free to withdraw at any time if s/he chooses to do so.

I understand that the interview will be recorded and that afterwards the recording will be erased once the thesis has been examined. I understand that any identifying information will be removed.

I agree that research data may be published in a form that does not identify my child or the school in any way.

I agree that my child will participate in the research.

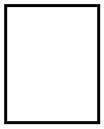
Name:

Signature: Date:

ASSENT FORM FOR CHILD INTERVIEW

I would like to find out what is important to you about learning in this school so that I can tell other adults about it. I would like you to do some drawings and then we can talk about them. This is a voice recorder which I would like to use if it is ok with you. I would also like to write some things down. If you wish to stop at anytime, please just ask me and we will go back to the classroom. If you would like to do this activity with me you can tick the smiley face (read out by researcher).





Name:

Date:

Appendix 7: Interview Guide for Child Interviews

Interview protocol for children

Interview 1: Draw a picture of yourself, your classroom. Tell me about it.

Tell me about your classroom. Draw what you like about your classroom. Would you like to tell me about what you have drawn?
Draw yourself (and others) doing some learning in this school. Would you like to tell me about what you have drawn?
Draw a time you enjoyed with the other children in your classroom/school. Would you like to tell me about what you have drawn?

Interview 2 and 3: Make a list of important places in the school and photograph them.

Today we are going to take some photographs of the important places in your school. If a visitor came to your school and you were taking them on a tour where would you take them to see? Let's make a list first and then I will give you a camera and you can take the photos.
Let's have a look at the photos we took and you can tell me what you see there.

Interview 4: Photos of mixed-age interactions to be discussed

Now, I have some pictures of children learning together (older children with younger children). What do you see in these pictures? Have you ever been helped by an older child? How did you find that?
I also have some pictures of children playing with each other in the school yard. What do you see in these pictures?

Appendix 8: Interview Guide for Teachers (Pilot Study)

Interview Guide for Teachers (Pilot Study)

Thank you very much for participating in this work. This is a study of how children in junior infant classes experience learning in a multigrade class. It is concerned with the views of a range of people including teachers, parents and children.

All the information I am collecting is confidential. This means that all participants in the pilot phase of the study are rendered anonymous and neither they nor the schools concerned will be identifiable in the study. Real names are not used in analysing or reporting the findings of the pilot phase of the study.

I anticipate the interview will last no longer than 30-40 minutes. If you are willing I would like to audio record it. I will also take notes just in case the recorder fails at any point. There are six broad themes which I hope we could look at. Please feel free to add in topics I may have forgotten but which you think would b useful to the study.

Interview questions

Infant Curriculum

What are the particular challenges in the delivery of the infant curriculum in a multigrade situation?

Informality of the learning experience

Needs of young children at this stage of development

Play

In the revised curriculum there is an emphasis on children learning through play in the infant classroom. Can you give me an overview of how junior infants experience play within the multigrade class?

Opportunities for free play

Opportunities for structured play

Younger and older children playing together

Outdoor play

Classroom grouping

Thinking about classroom organisation how do you organise groups in your classroom?

When and why might you teach whole class groups, class groups, small non-class groups, individuals?

Do you organise the class differently according to the subject which you are teaching?

Levels of interaction

Thinking about the levels of interaction between older children and junior infants

To what extent does the family like atmosphere influence the social interaction between children in the class?

To what extent, if at all do you think that the younger children learn skills from the older children?

To what extent, if at all do you think that the younger children learn knowledge from the older children?

Are there certain children who benefit more than others from the multigrade class?

Are there ways in which the multigrade class can be adapted to maximise learning opportunities for younger children?

What is your opinion on cross age tutoring i.e. older children tutoring younger children? Have you tried it? Why/why not?

Have you ever come across the notion of scaffolding? What do you understand by this?

Time

What are the issues/concerns around time in the context of teaching junior infants in a multigrade class?

Sustained conversation with children

Play with children

Make observations of children

Discuss children's progress

Planning learning activities

Advantages/Disadvantages

What are the advantages for junior infant pupils being taught in a multigrade class?

What are the disadvantages for junior infant pupils being taught in a multigrade class?

Which of the aspects of teaching in a multigrade class do you find particularly satisfying?

What improvements would you make that you think would enhance learning opportunities for children?

Finally, is there anything about teaching junior infants in the multigrade class which we have not yet talked about but which you think is important to mention?

Thank you again for your time. It has been very interesting.

Appendix 9: Questionnaire for Teachers and Cover Letter

Research Topic:
Exploring early years pedagogies in multigrade classrooms

Researcher:
Sharon O'Driscoll (PhD Student). Telephone:

Research Supervisors:
Dr. Mary Horgan Telephone:
Dr. Maura Cunneen. Telephone:

A chara,

I am currently doing research for my PhD in University College Cork. As part of this, I am undertaking a study of junior infant children in multigrade classes. Please find enclosed a questionnaire, the purpose of which is to gather the particular views of teachers in this situation. Your input to this research would be a crucial contribution to the area of teaching and learning in multigrade schools.

The questionnaire asks you to respond to a series of statements and questions. All answers will be treated as confidential and the information given will be used strictly for research purposes.

As a fellow primary school teacher I realise that your time is already constrained, but I would be extremely grateful if you would complete this questionnaire and return it to me in the pre-paid envelope as soon as possible.

I look forward to receiving your completed questionnaire and I very much appreciate your time and participation.

Mise le meas,

Sharon O'Driscoll

JUNIOR INFANTS IN MULTIGRADE CLASSES

I am conducting research in the Department of Education, UCC on the experiences of junior infants in multigrade classes. I would be very grateful if you could complete this questionnaire and return it to me in the pre-paid envelope as soon as possible. ALL ANSWERS WILL BE TREATED AS STRICTLY CONFIDENTIAL. The identity of the respondents will never be revealed to any outside body and the information given will be used only for research purposes.

THANK YOU FOR YOUR HELP.

Please indicate the appropriate response for each question by ticking the correct box *(√)*.

1. Please indicate your teaching background: Principal ☐ Assistant Teacher ☐

2. Please indicate your gender: Male ☐ Female ☐

3. How many years have you been teaching junior infants in a multigrade classroom?

1-5 years ☐ 6-10 years ☐ +10 years ☐

4. What is the total number on roll in the classes that you teach?
___children

5. Please indicate the gender of class:

Boys only ☐ Girls only ☐ Mixed ☐

6. What type of multigrade class is this? Please tick one box.

Junior and Senior Infants	Junior, Senior Infants and First class	Junior, Senior Infants, First and Second Class	Other
☐	☐	☐	☐

7. Please indicate the total number of children in each of the classes that you teach

Junior Infants	Senior Infants	First Class	Second Class
_____	_____	_____	_____

8. In addition to the class teacher how many adults work with this group of children? ___ adult(s)

If more than one adult, please clarify job title of the other adult(s), i.e. classroom assistant, special needs assistant, learning support teacher, resource teacher etc. Also could you note the number of hours per week each adult is present.

Adult 1 Job title	No. of hours	Adult 2 Job title	No. of hours	Adult 3 Job title	No. of hours

9. What age is the youngest child in your class? ____ years
10. What age is the oldest child in your class? ____ years

11. Thinking of the *play* experiences of junior infant children in the multigrade classroom, please tick the box which best indicates your level of agreement

Opportunities for play based learning activities are limited in multigrade classes	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Junior infant children benefit from the challenge offered by older children in mixed age play	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Older children do not often participate in cooperative dramatic play with junior infant children	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Older children do engage in cooperative construction play with junior infant children	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
In general, junior infant children prefer to play with same age peers rather than with older children	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Junior infant children often engage in more complex play activities when playing with older children	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Engaging in a playful approach to young children's learning is constrained in a multigrade class	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Junior infant children are intimidated by the play activities of the older children	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Some play activities are not possible in multigrade classes as noise levels would impede older classes	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Junior infant children play mainly with their peers in the yard at break times.	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐

If you have any additional comments to make on play, please explain on the lines below -

_____
_____
_____
_____
_____

12. Thinking of the *teaching strategies* you use in your classroom, please tick the box which best indicates your level of agreement

In multigrade classes it is problematic to use the range of teaching strategies required to meet the needs of junior infant children	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
A predominance of teacher directed instruction is an inevitable consequence of teaching in a multigrade classes	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Implementing activity based learning is the greatest challenge for teachers of junior infant classes in multigrade schools	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Small group teacher-led activity is the most essential strategy for guiding learning in multigrade classes	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Workbooks and worksheets are essential in teaching infants in multigrade classes	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Whole class teacher-led activity is the most important aspect of teaching in multigrade classes	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐

13. Over a period of a week, approximately what percentage of your time in class is devoted to each of the following teaching strategies?

Teaching Strategy	**0-25%**	**26-50%**	**51-75%**	**76-100%**
Whole class instruction				
Class group instruction				
Small group teaching (within one class)				
Teacher directed individual activities				
Child initiated individual activities				
Cross age tutoring*				
Peer tutoring**				

14. Given ideal conditions within the classroom how would you be likely to spend your time? Over a period of a week, approximately what percentage of your time in class would be devoted to each of the following teaching strategies?

Teaching Strategy	**0-25%**	**26-50%**	**51-75%**	**76-100%**
Whole class instruction				
Class group instruction				
Small group teaching (within one class)				
Teacher directed individual activities				
Child initiated individual activities				
Cross age tutoring*				
Peer tutoring**				

*Cross age tutoring = Older children tutoring younger children

** Peer tutoring = Children within the same class tutoring one another

15. In the table below please list the subject or aspects of subject you would teach using the teaching strategy indicated

Teaching strategy	Subject/Aspect of subject
Whole class	
Class group	
Cross age tutoring	
Peer group tutoring	

If you have any additional comments on teaching strategies please explain below

_____

_____

_____

_____

16. Thinking of the levels of *interaction* between junior infant children and the older children in your class please tick the box which indicates your level of agreement

Younger children actively use older children to develop skills (e.g. cutting with a scissors, kicking a ball)	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Younger children actively use older children to acquire knowledge	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Learning from older pupils in the class is more likely to benefit academically more able younger pupils	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
The family atmosphere of the multigrade class community can facilitate increased social interaction among children of different ages	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
In multigrade classes younger children benefit more than older children because they have somebody to learn from	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Older children actively look out for younger children in the class	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Junior infant children with older siblings in a multigrade setting integrate more easily	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐
Multigrade settings are hugely beneficial socially for only children (children without siblings)	Strongly Disagree ☐	Disagree ☐	Not sure ☐	Agree ☐	Strongly Agree ☐

17. Approximately how much time per *day* are the junior infants engaged in spontaneous activity or activities that they have chosen themselves?

0-30 minutes ☐ Up to 1 hour ☐ 1-2 hours ☐ 2-3 hours ☐ More than 3 hours ☐

18. With respect to the children in <u>Junior Infants</u>, please indicate whether or not you have sufficient time to do the following

	Yes	**No**
Time to have sustained conversation with children		
Time to play with children		
Time to make observations of children		
Time to discuss children's progress with parents		
Time to discuss children's progress with colleagues		
Time to enable children to develop their own interests		
Time to provide children with free choice of activity		
Time to plan learning activities		
Time to work with individual children		

If you have any additional comments to make on interactions please explain below

_____

_____

_____

19. This question explores whether or not multigrade classes are beneficial for children in <u>*Junior Infants*</u>. Please tick the box which best indicates your opinion

	Definitely not beneficial	**Probably not beneficial**	**Not sure**	**Beneficial**	**Definitely beneficial**
Opportunity to develop independent learning skills	☐	☐	☐	☐	☐
Community atmosphere facilitating increased social interaction	☐	☐	☐	☐	☐
Engage with older children as playmates	☐	☐	☐	☐	☐
Engage in communication with older children	☐	☐	☐	☐	☐
Exposed to more challenging curriculum	☐	☐	☐	☐	☐
Opportunity to imitate the positive behaviour of older children	☐	☐	☐	☐	☐

If you have additional comments on benefits please explain below

_____

_____

_____

_____

20. This question explores the challenges you face in your work as a teacher of junior infant children in a multigrade school. Please tick the box which best indicates your opinion

	Definitely not challenging	**Not really challenging**	**Not sure**	**Challenging**	**Extremely challenging**
Large number of pupils in your classroom	☐	☐	☐	☐	☐
Lack of time	☐	☐	☐	☐	☐
Children's home background	☐	☐	☐	☐	☐
Lack of resources	☐	☐	☐	☐	☐
Overloaded Curriculum	☐	☐	☐	☐	☐
Your level of knowledge of teaching in a multigrade setting	☐	☐	☐	☐	☐
Teaching a variety of class groupings	☐	☐	☐	☐	☐
Teaching children whose first language is not English	☐	☐	☐	☐	☐
Inclusion of children with special needs	☐	☐	☐	☐	☐
Difficulty providing activities to suit all classes	☐	☐	☐	☐	☐
Facilitating participation of junior infants in whole class activities	☐	☐	☐	☐	☐
Level of support available to you from teaching colleagues e.g. learning support/resource teacher	☐	☐	☐	☐	☐
Your level of knowledge of child development	☐	☐	☐	☐	☐
Unsuitable accommodation or lack of classroom space	☐	☐	☐	☐	☐
Lack of professional development on multigrade issues	☐	☐	☐	☐	☐

If you have any additional comments to make on the challenges please explain below

_____

_____

_____

21. If given the choice, which group would you *prefer* to teach? Please tick the appropriate box

Junior infants in a multigrade setting? ☐

A single class unit of Junior Infants? ☐

Please explain why

_____
_____
_____
_____
_____
_____
_____

THANK YOU FOR TAKING THE TIME TO COMPLETE THE QUESTIONNAIRE

Appendix 10: Ethics Approval

Appendix 11: Goldilocks and the Three Bears

Nadine (Senior Infants): One day Goldilocks decided to go for a walk in the gloomy forest.
Thomas (2nd class): If she goes a small bit quicker I think it will sound better.
Orla (teacher): Who thought of that adjective?
Cian (2nd class): I did.
Nadine practices her sentence again and Thomas helps her.
Orla: Is she happy with it yet?
Nadine has a second opportunity and does a very good job. She gets a spontaneous clap.

Jim (Junior infant): She sat on the last chair and it was just right but it broke.
The teacher reads along with Jim in a low voice.
Orla: He deserves a clap for that.

Rachel (Junior Infant): Goldilocks got into Baby Bear's bed and fell fast asleep.
Orla: If you read it in such a teeny, tiny voice we won't understand. The teeny vice is just for Baby Bear speaking.
Rachel tries again in a normal voice. When she is finished she marches down to her place smiling broadly.

Ryan (1st class): 'Who's been eating my porridge?' growled Father Bear.
Orla: Who thought of 'growled'?
Jim: It was Thomas.

All the children are reading the last slide. They gather around the microphone.
Orla: Stand back and leave the small ones in.
The children read the last sentence. During the first take Rachel and Nadine are competing to shout out the words.
Orla: Listen Rachel and Nadine, it's not a competition to see how loud you can be but you must read with the crowd.
The children repeat the reading and this attempt is successful.

Orla: We must decide whether we are putting music to it.
Nadine: I want music!
Orla offers a choice of music to accompany the story and the children choose one.

When the photostory has loaded the children listen to the recording.
Jim: I hear like a baby. I have a small voice
Orla: That's because you were speaking gently.
Jim nods his head in agreement

Appendix 12: Mathematics Lesson at Drumleathan NS

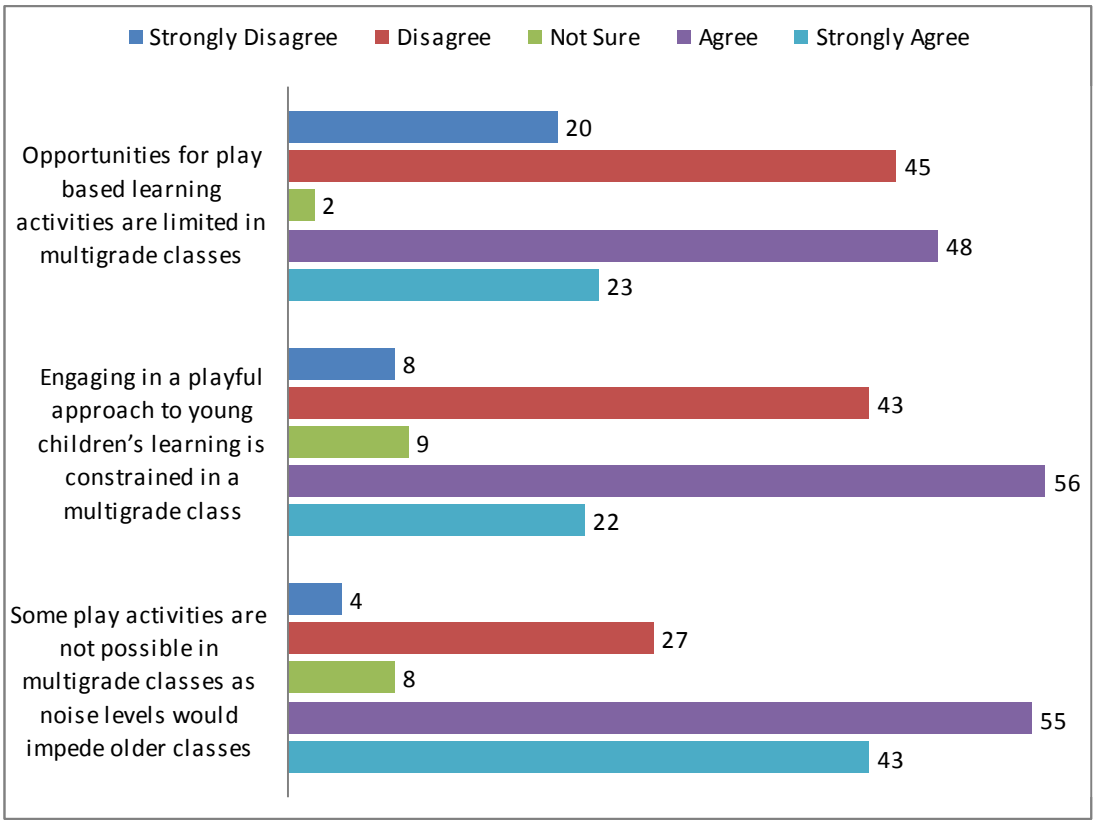
T: Guess what, I took this page out of a Senior Infant book. You have to count them and write the number in the box. Write 0 with your finger on the table.
All: Round like Clever Cat.
Linda: 1, that's easy.
The secretary comes in with the calendar and has a brief discussion with the teacher before putting the calendar back near the teacher's desk.
The teacher returns her attention to the junior infants.
T: Watch 2 is it the same way as Clever Cat?
All: No!
T: Now try 3, with another round at the bottom.
A child from first class interrupts with a complaint that another child is distracting her. The teacher turns her head to look in the direction of first class.
T: That's very disappointing. Then comes 5.
The teacher answers a question from another child in first class. The teacher becomes aware of increasing noise levels from Senior Infants who have been chatting and playing with cubes while they were waiting.
T: I know Senior Infants, you have been very patient. I will be with you in a moment. Junior Infants, when you are finished colour in for five minutes and then I will tell you when to get the balance out.
The teacher attends to senior infants and the junior infants begin the activity sheet. Linda is first to finish writing in the numbers after one minute. Kate finishes after two more minutes.
The teacher is teaching second class a lesson on length and she is preparing a page from the children's textbook.
The teacher has instructed first class to take out their clocks and to open the page about clocks in their textbook. The rest of the junior infants have finished their writing and begin the colouring.
Sheila: What colour are fish?
Kate: Gold fish are orange.
Linda: I think fish are grey. Or if it's an Angel Fish it would be yellow or a Sting Ray would be...
Linda is cut short as teacher has come over and is ready to look at the children's work.
T: Let me take a quick peek at the juniors work. Oh, this work is like Senior Infant work, it's absolutely beautiful! Good girl. Now look at this one. Oops, hang on. What's that? I never saw a 5 looking like that. It doesn't look like this one (showing another one) Make it like that.
Linda: I don't have a rubber.
T: Oh dear does anyone have a rubber?
Several children answer together offering the teacher an eraser.

Appendix 13: Brain Gym at Scoil Eirne

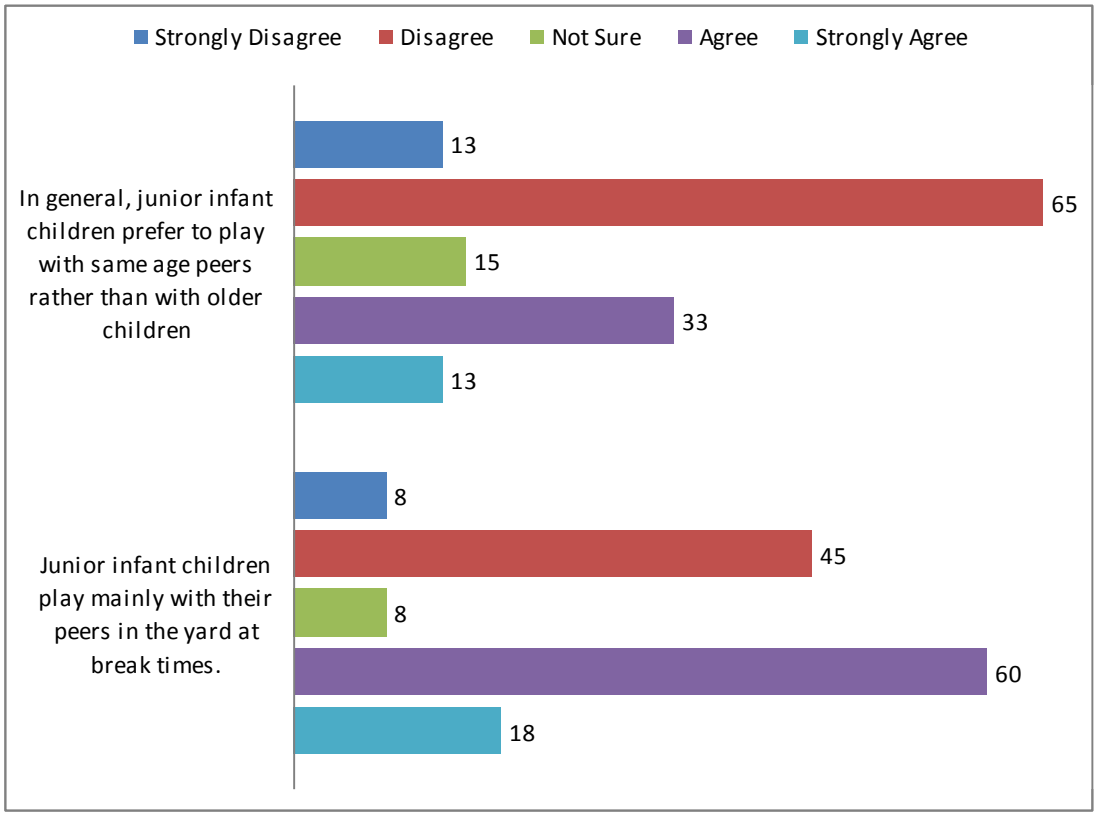
C (JI): How about pointing like a ballerina?
R (2nd): No thanks!
T: If you want to.
T: Bend your knees. Good girl Clodagh. That's too far, Evan. Now it's massage time. Children, partner up with one another.
Rebecca (1st): Clodagh, would you like to go with me?
T: Or perhaps Sally?
C: I'll choose.
She chooses Ryan, a boy from second class. His expression is of slight dismay when he is chosen but nonetheless agrees. The children begin to massage each other. A shoulder massage is first as they are encouraged to press thumbs in and then release. Darren chooses Sally, a senior infant who also looks slightly reluctant but goes with him. Rebecca (1st) partners the resource teacher. The class teacher and the SNA partner each other. Some children snigger at this. I hear a whisper 'the teachers are together'.
T: If you find any knots in there, get rid of them. The atmosphere quietens down a little but is not completely silent.
T: Bend forward. Press thumbs in and release. Next the children exchange roles and it is the other child's turn to massage. To finish up all the children stretch, yawn and thank one another for the massage.

Appendix 14: Play opportunities for Junior Infant Pupils in Multigrade Classes

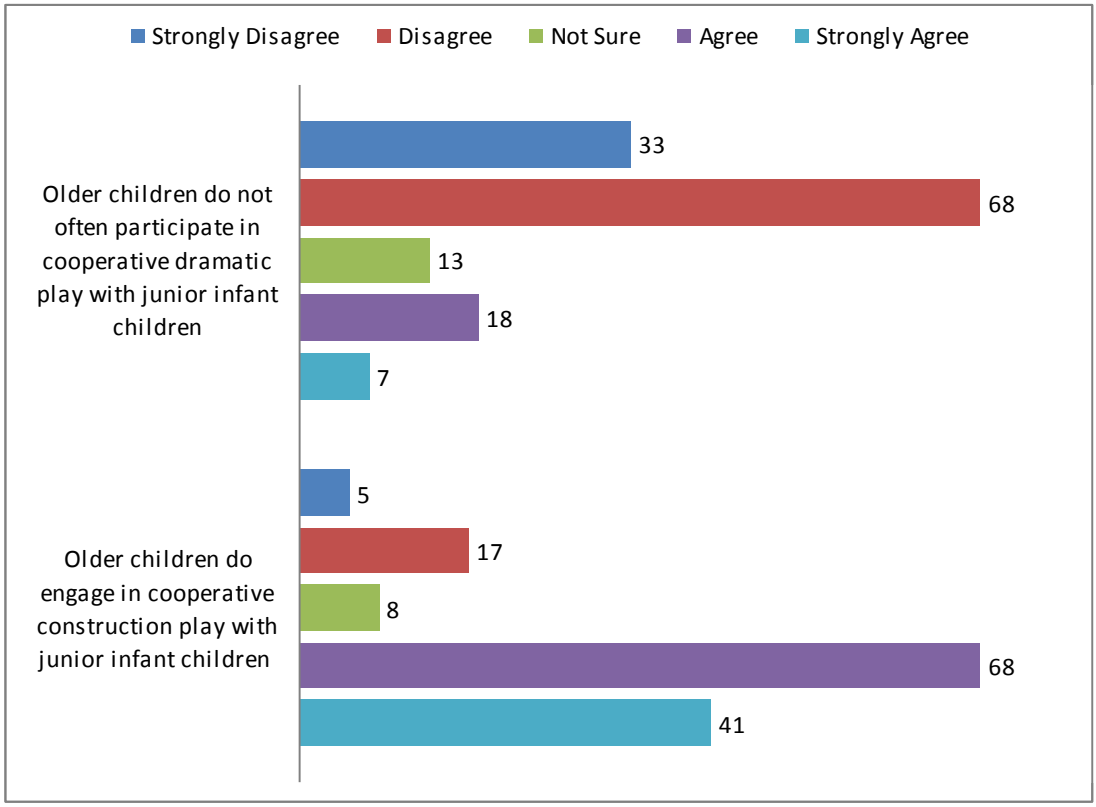
- **Item A**: Opportunities for play based learning activities are limited in multigrade classes
- **Item G:** Engaging in a playful approach to young children's learning is constrained in a multigrade class.
- **Item I:** Some activities are not possible in multigrade classes as the noise levels would impede older classes



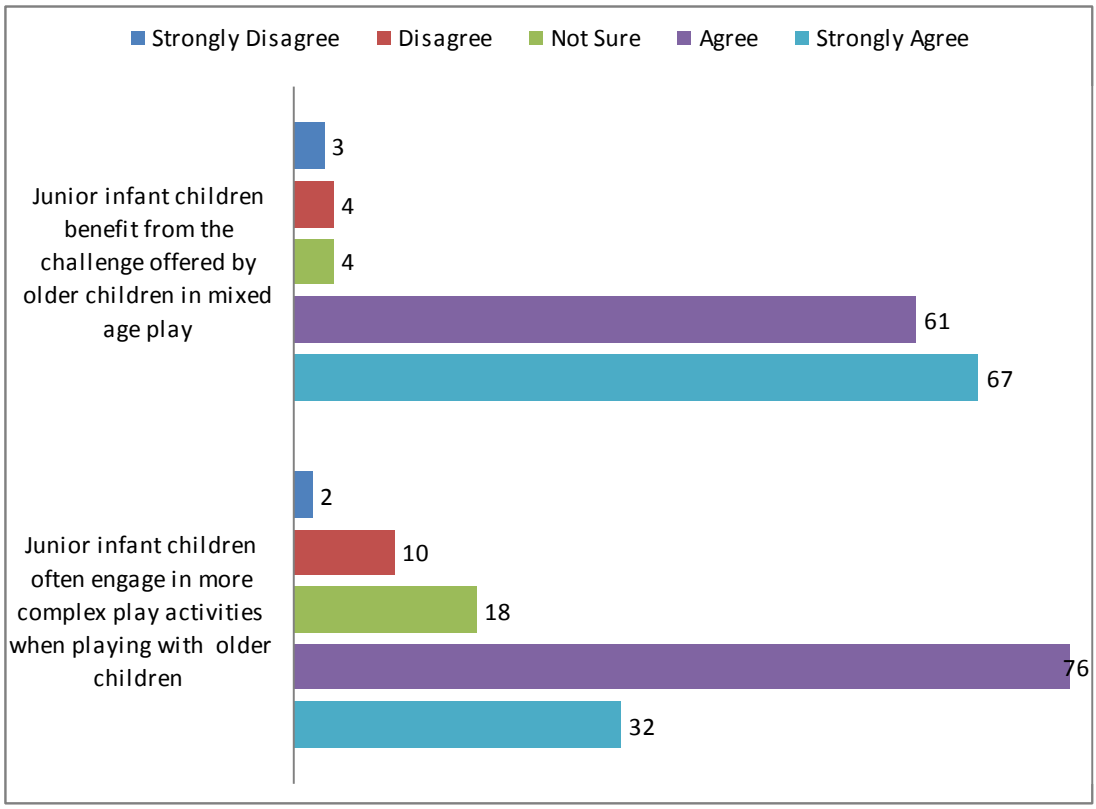
- **Item E:** In general, junior infant children prefer to play with same age peers rather than with older children
- **Item J:** Junior infant children play mainly with their peers in yard at breaktimes



- **Item C:** Older children do not often participate in co-operative socio-dramatic play with junior infant children
- **Item D:** Older children do engage in cooperative construction play with junior infant children



- **Item F:** Junior infant children often engage in more complex play activities when playing with older children
- **Item B:** Junior infant children benefit from the challenge offered by older children in mixed age play



Appendix 15: Teaching Strategies in Multigrade Classes

	Strongly Disagree	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**
In multigrade classes it is problematic to use the range of teaching strategies required to meet the needs of junior infant children	7% n=10	29% n=41	9% n=12	37% n=52	18% n=26
Workbooks and worksheets are essential in teaching infants in multigrade classes	0% n=0	18% n=26	6% n=9	50% n=70	26% n=36
Whole class teacher-led activity is the most important aspect of teaching in multigrade classes	6% n=8	53% n=75	20% n=28	18% n=26	3% n=4
Small group teacher-led activity is the most essential strategy for guiding learning in multigrade classes	1% n=1	18% n=25	13% n=18	52% n=73	17% n=24
A predominance of teacher directed instruction is an inevitable consequence of teaching in a multigrade classes	6% n=9	30% n=42	13% n=18	33% n=47	18% n=25
Implementing activity based learning is the greatest challenge for teachers of junior infant classes in multigrade schools	4% n=6	28% n=40	9% n=12	40% n=56	19% n=27

Appendix 16: Interaction of Younger and Older Children

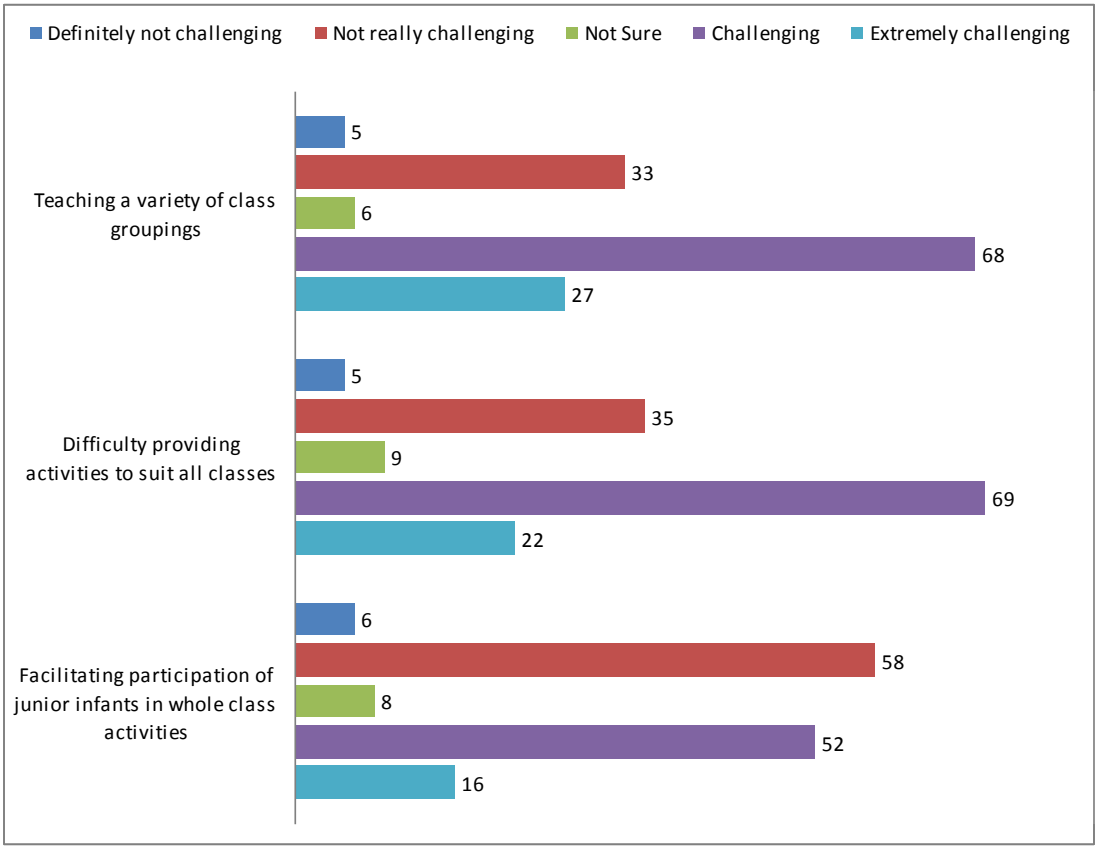
	Strongly disagree	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**
Younger children actively use older children to develop skills	0% n=0	14% n=20	5% n=7	53% n=74	28% n=40
Younger children actively use older children to acquire knowledge	0% n=0	6% n=8	8% n=11	57% n=81	29% n=41
The family atmosphere of the multigrade class community can facilitate increased social interaction among children of different ages	0% n=0	0% n=0	3% n=4	43% n=61	54% n=76
Older children actively look out for younger children in the class	0% n=0	3% n=4	6% n=8	48% n=67	44% n=62
In multigrade classes younger children benefit more than older children because they have someone to learn from	3% n=4	24% n=34	11% n=	40% n=57	22% n=31
Learning from older pupils in the class is more likely to benefit academically more able younger pupils	0% n=0	13% n=18	8% n=12	50% n=70	29% n=41
Junior infant children with older siblings in a multigrade setting integrate more easily	0% n=0	13% n=18	11% n=16	57% n=80	19% n=27
Multigrade settings are hugely beneficial socially for only children (children without siblings	1% n=2	4% n=5	19% n=27	46% n=65	30% n=42

Appendix 17: Possible challenges regarding teaching in a multigrade class

Managing diversity

This group of statements dealt with managing diversity in the classroom. The items included in this group were

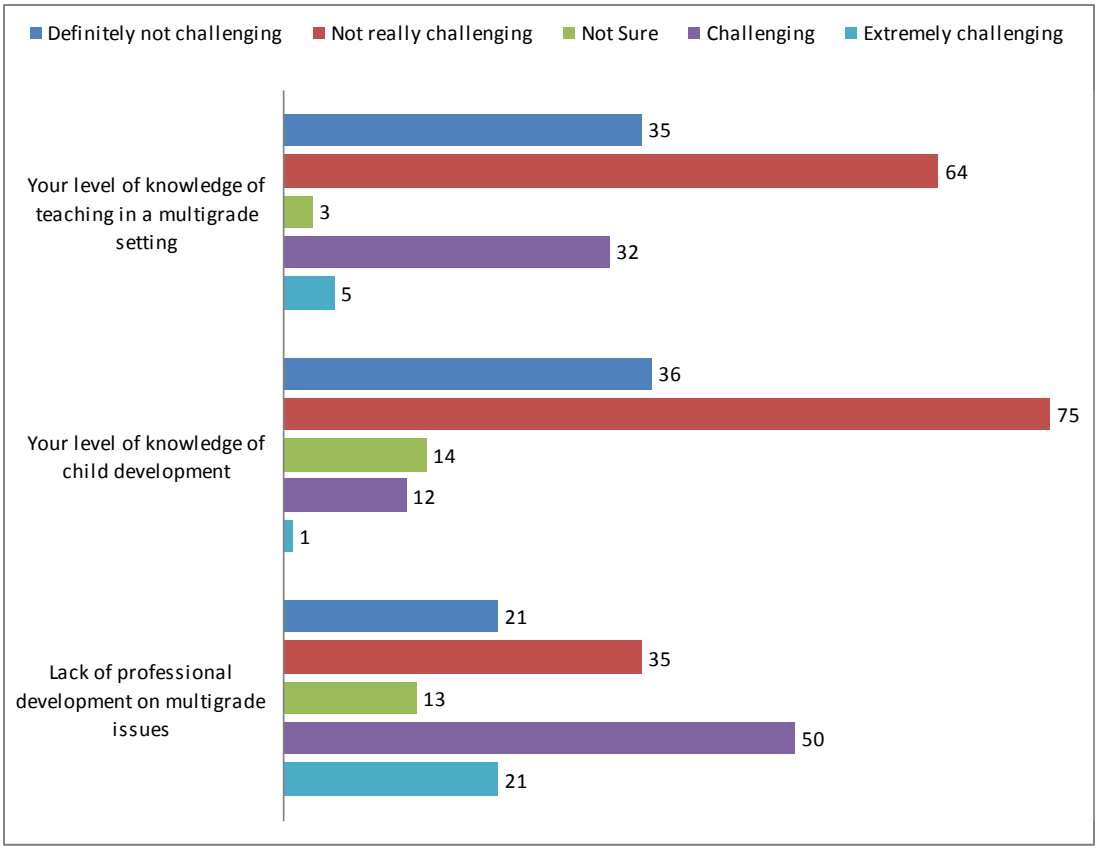
- **Item G:** Teaching a variety of class groupings
- **Item J**: Difficulty providing activities to suit all classes
- **Item K**: Facilitating participation of junior infants in whole class activities



Knowledge of the teacher

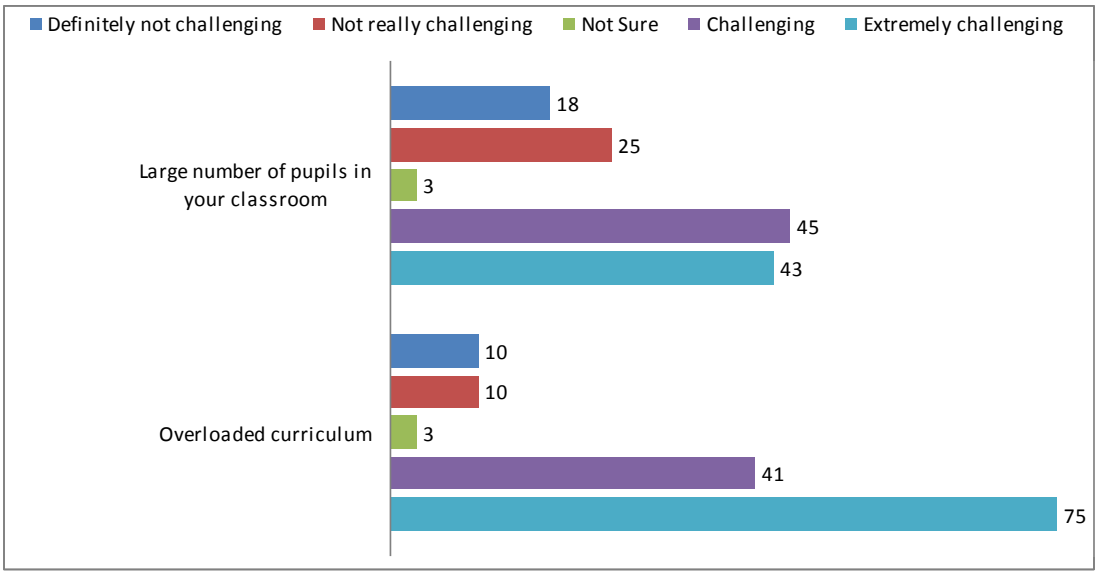
This group of items examined the levels of knowledge of young children in multigrade settings which teachers may possess.

- **Item M:** Your level of knowledge of child development
- **Item F**: Your level of knowledge of teaching in a multigrade setting
- **Item O:** Lack of professional development on multigrade issues



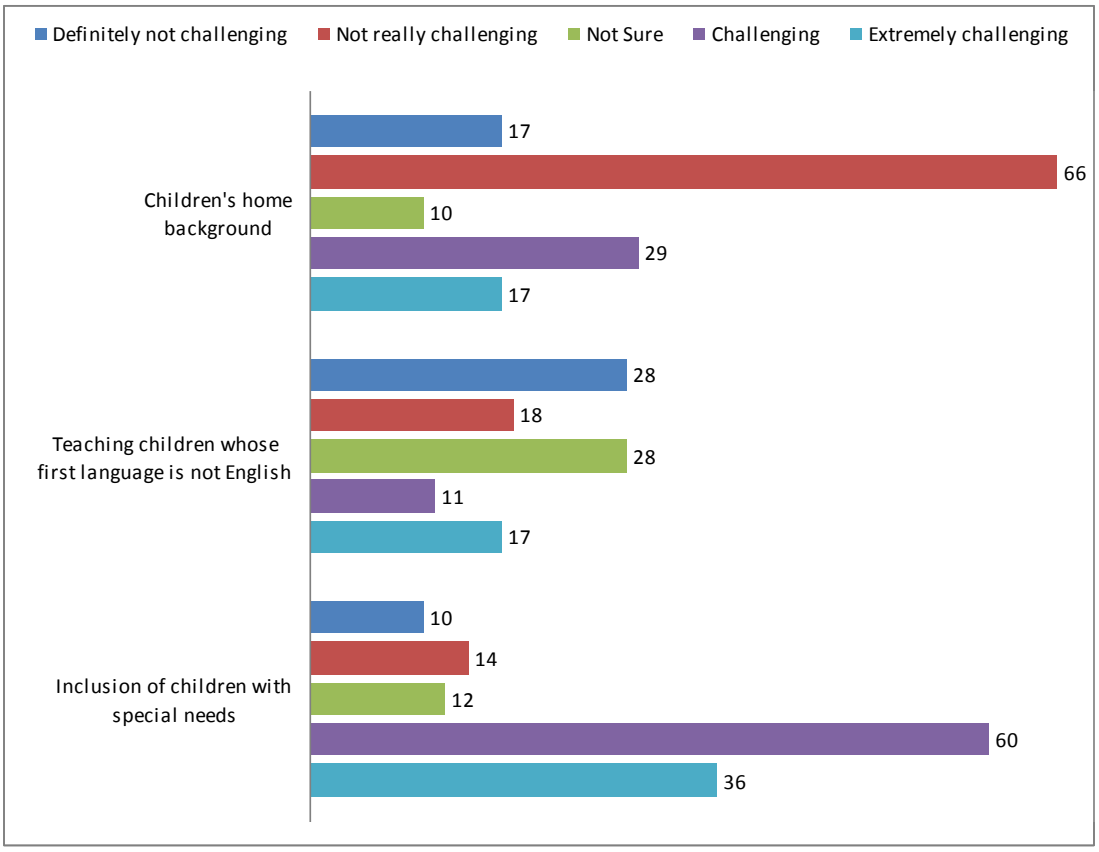
Curriculum and Class Size

- **Item E:** Overloaded curriculum
- **Item A:** Large number of pupils in your classroom



Teaching Children with Specific Needs

- **Item I:** Inclusion of children with special needs
- **Item C:** Children's home background
- **Item H:** Teaching children whose first language is not English



Time Constraints

