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Title	Re-designing initial teacher education: deepening engagement with pedagogy. Conference proceedings
Publication date	2013-06-01
Original Citation	RUTHERFORD, V., CONWAY, P. F., eds. 2013. Re-designing initial teacher education: deepening engagement with pedagogy. Conference Proceedings. University College Cork, Cork, Ireland 12-13 June 2013. School of Education, University College Cork: Cork
Type of publication	Conference item
Link to publisher's version	http://www.ucc.ie/en/LETS/
Download date	2026-11-17 05:43:39
Item downloaded from	https://hdl.handle.net/10468/1263



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Re-designing Initial Teacher Education: Deepening Engagement with Pedagogy

Conference Proceedings

Western Gateway Building,
University College Cork
12th & 13th June 2013







Re-designing Initial Teacher Education: Deepening Engagement with Pedagogy

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Funded by the School of Education, UCC and the Irish Research Council-funded Advanced Collaborative Research Award: *Re-imagining Initial Teacher Identity and Learning Study*

ISBN Print: 978-1-906642-64-8

ISBN EBook: 978-1-906642-65-5

Vanessa Rutherford and Paul Conway (Eds.)

School of Education, Leeholme, O'Donovan's Road, University College Cork, Cork, Ireland.

www.ucc.ie

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Welcome from Head of Education, UCC

Dear Colleagues/A Chairde,

I am delighted to avail of this opportunity to welcome delegates to the *Re-designing Initial Teacher Education: Deepening Engagement with Pedagogy* conference here in UCC. In particular, we are pleased to welcome and host Professor Aki Murata, University of California, Berkeley, USA, a leader in research on Japanese Lesson Study.

The theme of the conference is of much interest in Ireland and elsewhere, given the heightened policy interest in teacher education reform. This conference provides a valuable opportunity to consider how teacher education research will inform the current watershed policy changes in teacher education and their implications for the re-design of initial teacher education.

Recent research undertaken at the School of Education led by Dr Paul Conway on initial teacher education for post primary (*Learning to Teach Study*, LETS) teaching showed that there is much scope for developing student teachers' pedagogical knowledge (in mathematics, science and languages) but how best to achieve this in collaboration with schools merits further study, possibly in the form of research and development initiatives. The Teaching Council of Ireland is placing increasing emphasis on the need for teachers to learn and upskill throughout the career span and it is likely that action research and evaluation, involving opportunities for reflection at the level of the school and the classroom, will need to feature more significantly. To date, in Ireland we have been much better at focusing on system change than on the more complex but vital cultural transformation at the level of school and the classroom i.e. at the pedagogical level. This conference offers a wonderful opportunity to consider the latter and to ponder the kinds of interventions and supports, such as lesson study, that are now needed to promote a more critical and nuanced approach to pedagogy in the classroom.

We look forward to being informed and inspired by the conference participants and to the new alliances that will be formed as a result of the event.

Le gach dea ghuí,

Professor Kathy Hall

Head of School of Education, UCC

Foreword

Dear colleagues,

Welcome to UCC and the *Re-designing Initial Teacher Education: Deepening Engagement with Pedagogy* conference.

At today's conference there are teacher education researchers from various colleges/universities, along with policy makers, teacher educators, researchers, teacher union leaders, teachers and student teachers. One of the key findings from the Learning to Teach Study (LETS) was that schools provided significant support for student teachers during the PDE, but that this support rarely extended to co-planning, co-teaching or providing opportunities to either observe or be observed while learning to teach. In considering current reforms of post-primary intial teacher education, this key finding from LETS points to how deeper engagement with pedagogy ought to be a core aim of such reforms.

The conference provides a valuable opportunity to learn more about Japanese Lesson Study given its potential to inform both teacher education and mathematics education initiatives in Ireland and elsewhere. What is Japanese Lesson Study? Lesson Study is a system of collaborative learning from live teaching that uses investigation, planning, research lesson, and reflection - to create changes in teachers' knowledge and beliefs, professional community, and teaching - learning resources. Lesson Study develops teachers' knowledge (of content, pedagogy, and student thinking), by building teacher professional community, and by improving teaching materials. As such, we might see it as a signature pedagogy in teacher education with the potential to inform the whole teacher education endeavour. In particular, Lesson Study provides a viable model for thinking about how the re-sedign of initial teacher education can deepen engagement with pedagogy. As such, Lesson Study is an exemplary model of a professional learning community may provide the base for transforming schools' engagement with pedagogy in schools and initial teacher education.

I would like to thank a number of people who made today's event possible: Dr Vanessa Rutherford (Irish Research Council Post-doctoral Researcher), in particular, for her work in planning the conference, as well as Stephanie Larkin, Angela Desmond, Professor Kathy Hall, Dr Fiachra Long (PDE Co-ordinator), Dr Tracey Connolly (PDE School-University Partnerships/Placement Co-ordinator) Dr Brian Murphy (in-coming PDE Co-ordinator) all in the School of Education here in UCC; Professor Aki Murata, Dr Aisling Leavy, MIC, Dr Máire Ní Riordáin, NUIG, Aoibhinn Ní Shúilleabháin, TCD, Moira Leydon, ASTI, Dr Fionn O'Murchú, DES, Prof. Elaine Munthe, University of Stavangar, Norway, education agencies including the Irish Research Council, Project Maths, and, finally, colleagues presenting posters listed in the programme.

Enjoy the conference.

Dr Paul Conway

School of Education, UCC

Conference Overview

Reform and Re-design of Initial Teacher Education: Deepening Engagement with Pedagogy

AIMS

Share findings from the DES-funded ***Learning to Teach Study*** **(LETS)**[1] and promote discussion about current directions and dilemmas in re-designing initial teacher education

FORMAT & SCHEDULE

9.00-9.30: Registration and Posters (G04) on initial teacher education

9.30-10.45: Symposium (WGB Room: 1.07):

Insights from the DES-funded *Learning to Teach Study* (LETS)

10.45-11.15: Coffee/tea & Posters (Room G04) on initial teacher education

11.00-1.00: Keynote (WGB Room: 1.07):

Lesson Study in ITE - Professor Aki Murata, University of California, Berkeley, USA. Followed by Discussion.

1.00-1.45: Lunch

1.45-3.45: Symposium: Panel & Plenary (WGB Room: 1.07): Re-designing initial teacher education

KEYNOTE ADDRESS: Lesson Study as a guide for ITE re-design and deepening engagement with pedagogy

- An emerging signature pedagogy in ITE and a high leverage practice in teaching
- An exemplary model of a professional learning community
- A proven approach for transforming schools' engagement with pedagogy

[1] The DES-funded ***Learning to Teach Study*** (LETS) is available at: http://cora.ucc.ie/bitstream/handle/10468/880/PFC_LearningPV2011.pdf?sequence=1

Programme

9.00-9.30: Registration and Posters on initial teacher education

9.30-10.45: Symposium: Insights from the DES-funded *Learning to Teach Study* (LETS)

- Welcome: Dr Fiachra Long, PDE Co-ordinator
- Overview of Learning to Teach Studies (LETS) 1 and 2: Dr Paul Conway [15min]
- Novice teachers as invisible learners: Dr Fiachra Long, PDE Programme Director [12min]
- School-university partnerships: Insights from LETS 1 and LETS 2: Dr Tracey Connolly [12min]
- Reading literacy in secondary teacher education: from the background to the foreground: Dr Brian Murphy, PDE Programme Director 2014- [12min]
- Plenary

10.45-11.15: Coffee/tea & Posters on initial teacher education

11.00-1.00: Keynote: Lesson Study in ITE - **Professor Aki Murata, University of California, Berkeley, USA**. Followed by Discussion

- Intro: Dr Paul Conway
- Aki Murata [75-90 min]
  - Response from: (i) Dr Aisling Leavy, MIC, (ii) Aoibhinn Ní Shuilleabháin, TCD [2 x 5-7min]
  - Reflection on insights from LETS and Lesson Study re redesign of initial teacher education

1.00-1.45: Lunch (and posters)

1.45-3.45: Symposium on re-designing initial teacher education

- **Panel [3 x 8-10min]:**
  - Dr Máire Ní Riordáin, NUIG,
  - Moira Leydon, ASTI,
  - Dr Brian Murphy, UCC
- **Plenary**
- **Final Remarks:** Dr Paul Conway

Keynote Speaker: Prof. Aki Murata

Brief Bio

Dr. Murata earned a PhD in Learning Scienes from Northwestern University, Chicago, IL, USA, in 2002. Her research focuses on developing better understanding of and improving teaching and learning of mathematics in elementary classrooms. Lesson Study is a central context within which she undertakes research. Improving mathematics education is a significant task, and her research focuses on examining classrooms as a learning space where teaching and learning interact. Her work aims to unpack and explain the complex processes of such interactions. In investigating these interactions, she emphasizes teaching supports (e.g., visual representations) as windows into the practice, for how they are used as instructional tools, how teachers make sense of the roles of the supports, how the supports are used, and how students learn with them. Another important aspect of her work explores how group and individual learning occur simultaneously and affect each other in classrooms. Importantlyin the context of understanding educational reform, she also uses lesson study as a research context to examine these interactions and study how teachers learn in collaboration and how lesson study supports instructional improvement.

Selected Publications

Murata, A. (2012). Diversity and high academic expectations without tracking: Inclusively responsive instruction. *The Journal of Learning Sciences.*

Murata, A., Bofferding, L., Pothen, B., Taylor, M., & Wischnia, S. (2012). Making connections among student learning, content, and teaching: Teacher talk paths in elementary mathematics lesson study. *Journal for Research in Mathematics Education, 43*(5). 616-650.

Bofferding, L., Kemmerle, M., & Murata, A. (2012). Making 10 my way: Differentiation in a kindergarten lesson study. *Teaching Children Mathematics.*

Murata, A., & Kattubadi, S. (2012). Grade 3 students' mathematization through modeling: situation models and solution models with multi-digit subtraction problem solving. *Journal of Mathematical Behaviors. 31*(1).15-28. doi:10.1016/j.jmathb.2011.07.004

L. Hart, A. Alston, & A. Murata. (Eds.). (2011). *Lesson study research and practice in mathematics education: Learning together*. NY: Springer

Murata, A. (2011). Conceptual overview of lesson study: Introduction. In L. Hart, A. Alston, & A. Murata (Eds.).*Lesson study research and practice in mathematics education: Learning together*. NY: Springer. pp. 1-12.

Murata, A. & Pothen, E. B. (2011). Lesson study in preservice elementary mathematics courses: Connecting emerging practice and understanding. In L. Hart, A. Alston, & A. Murata (Eds.).*Lesson study research and practice in mathematics education: Learning together*. NY: Springer. pp. 103-116.

Murata, A. (2010). Teacher learning with lesson study. In P. Peterson, E. Baker, & B. McGaw. (Eds.). *International Encyclopedia of Education, v7.* pp. 575-581. Oxford: Elsevier.

Murata, A. (2008). Mathematics teaching and learning as a mediating process: The case of tape diagrams. *Mathematical Thinking and Learning. 10*(4).374 – 406.

Murata, A. & Fuson, K. C. (2006). Teaching as assisting individual constructive paths within an interdependent class learning zone: Japanese first graders learning to add using ten. *Journal for Research in Mathematics Education. 37*(5).421 - 456.

Lewis, C., Perry, R., & Murata, A. (2006). What is the role of the research in an emerging innovation?: The case of lesson study. *Educational Researcher, 35*(3).3 – 14.

Murata, A. (2006). Coherent in-depth curricular paths: Early number sense development. In Lewis, C. and Takahashi, A. (eds.). *Learning Across Boundaries: U.S-Japan Collaboration in Mathematics, Science and Technology Education.* Oakland, CA: Mills College School of Education. pp. 178 – 188.

The Inauguration of Teacher Education in Queen's College Cork

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School of Education
University College Cork
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> *In my last report I mentioned the inauguration of a department for the training of secondary school teachers, a thing much needed in this country. It was the first to be formed; it has excellent and energetic teachers . . .*[2]

Early days: A new department for the training of secondary school teachers

President of University College Cork, Bertram Windle [1858-1929] set up a course of lectures in education for trainee teachers in 1905 – the forerunner to the Higher Diploma in Education.

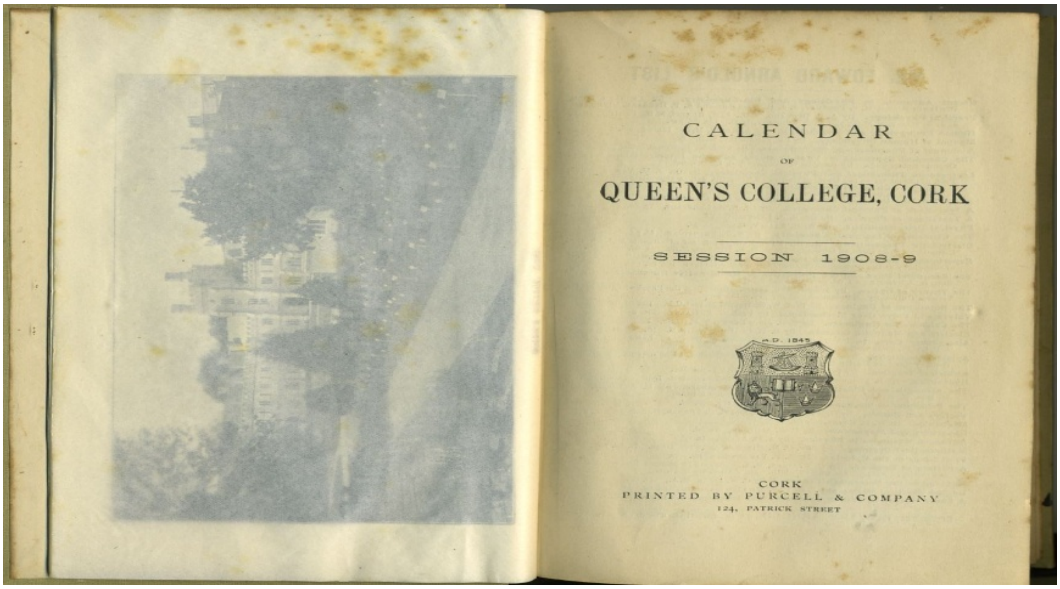
Eugene McSweeney, Head Master, Blackpool Boys National School and Harriet Martin, Headmistress, The High School for Girls, later St. Angela's were appointed jointly to the lectureship in education.

The syllabus for preparation for the Diploma in Teaching granted by the Royal University of Ireland, comprised

1. Mental and Moral Sciences in their Relation to Education;
2. History of Education;
3. Methods of teaching, school management and organisation;
4. Practical instruction in teaching

The material studied in the first three courses was substantial.

[2] *Report of the President of Queen's College Cork, 1905-1906*, p.12.



CALENDAR

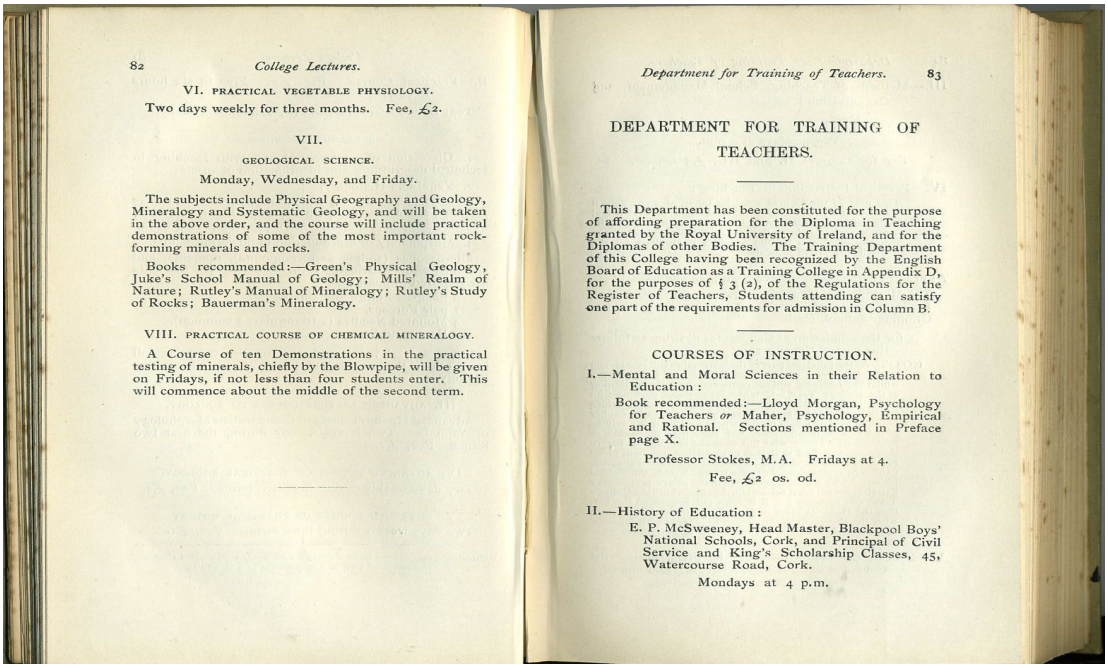
OF

QUEEN'S COLLEGE, CORK

SESSION 1908-9

CORK
PRINTED BY PURCELL & COMPANY
124, PATRICK STREET

Source: University Archives, UCC.



82 *College Lectures.*

VI. PRACTICAL VEGETABLE PHYSIOLOGY.

Two days weekly for three months. Fee, £2.

VII.

GEOLOGICAL SCIENCE.

Monday, Wednesday, and Friday.

The subjects include Physical Geography and Geology, Mineralogy and Systematic Geology, and will be taken in the above order, and the course will include practical demonstrations of some of the most important rock-forming minerals and rocks.

Books recommended:—Green's Physical Geology, Juke's School Manual of Geology; Mills' Realm of Nature; Rutley's Manual of Mineralogy; Rutley's Study of Rocks; Bauerman's Mineralogy.

VIII. PRACTICAL COURSE OF CHEMICAL MINERALOGY.

A Course of ten Demonstrations in the practical testing of minerals, chiefly by the Blowpipe, will be given on Fridays, if not less than four students enter. This will commence about the middle of the second term.

Department for Training of Teachers. 83

DEPARTMENT FOR TRAINING OF TEACHERS.

This Department has been constituted for the purpose of affording preparation for the Diploma in Teaching granted by the Royal University of Ireland, and for the Diplomas of other Bodies. The Training Department of this College having been recognized by the English Board of Education as a Training College in Appendix D, for the purposes of § 3 (2), of the Regulations for the Register of Teachers, Students attending can satisfy one part of the requirements for admission in Column B.

COURSES OF INSTRUCTION.

I.—Mental and Moral Sciences in their Relation to Education :

Book recommended:—Lloyd Morgan, Psychology for Teachers *or* Maher, Psychology, Empirical and Rational. Sections mentioned in Preface page X.

Professor Stokes, M.A. Fridays at 4.

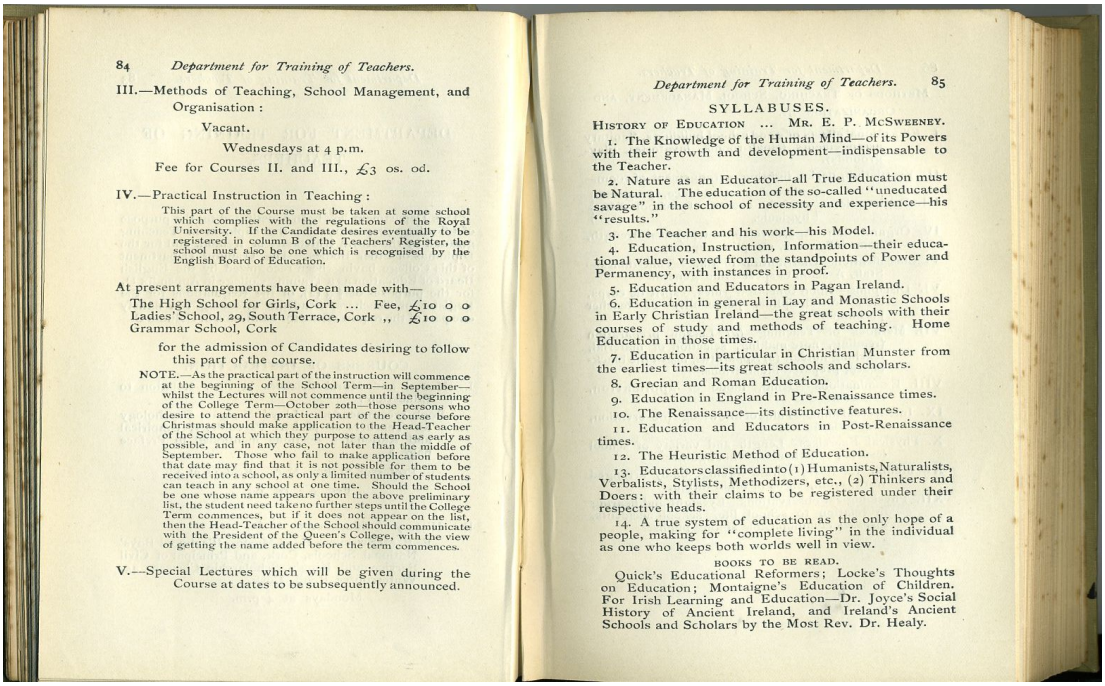
Fee, £2 0s. 0d.

II.—History of Education :

E. P. McSweeney, Head Master, Blackpool Boys' National Schools, Cork, and Principal of Civil Service and King's Scholarship Classes, 45, Watercourse Road, Cork.

Mondays at 4 p.m.

Source: University Archives, UCC.



84 *Department for Training of Teachers.*

III.—Methods of Teaching, School Management, and Organisation :

Vacant.

Wednesdays at 4 p.m.

Fee for Courses II. and III., £3 os. od.

IV.—Practical Instruction in Teaching :

This part of the Course must be taken at some school which complies with the regulations of the Royal University. If the Candidate desires eventually to be registered in column B of the Teachers' Register, the school must also be one which is recognised by the English Board of Education.

At present arrangements have been made with—

The High School for Girls, Cork ... Fee, £10 0 0
Ladies' School, 29, South Terrace, Cork ,, £10 0 0
Grammar School, Cork

for the admission of Candidates desiring to follow this part of the course.

NOTE.—As the practical part of the instruction will commence at the beginning of the School Term—in September—whilst the Lectures will not commence until the beginning of the College Term—October 20th—those persons who desire to attend the practical part of the course before Christmas should make application to the Head-Teacher of the School at which they purpose to attend as early as possible, and in any case, not later than the middle of September. Those who fail to make application before that date may find that it is not possible for them to be received into a school, as only a limited number of students can teach in any school at one time. Should the School be one whose name appears upon the above preliminary list, the student need take no further steps until the College Term commences, but if it does not appear on the list, then the Head-Teacher of the School should communicate with the President of the Queen's College, with the view of getting the name added before the term commences.

V.—Special Lectures which will be given during the Course at dates to be subsequently announced.

Department for Training of Teachers. 85

SYLLABUSES.

HISTORY OF EDUCATION ... MR. E. P. MCSWEENEY.

1. The Knowledge of the Human Mind—of its Powers with their growth and development—indispensable to the Teacher.

2. Nature as an Educator—all True Education must be Natural. The education of the so-called "uneducated savage" in the school of necessity and experience—his "results."

3. The Teacher and his work—his Model.

4. Education, Instruction, Information—their educational value, viewed from the standpoints of Power and Permanency, with instances in proof.

5. Education and Educators in Pagan Ireland.

6. Education in general in Lay and Monastic Schools in Early Christian Ireland—the great schools with their courses of study and methods of teaching. Home Education in those times.

7. Education in particular in Christian Munster from the earliest times—its great schools and scholars.

8. Grecian and Roman Education.

9. Education in England in Pre-Renaissance times.

10. The Renaissance—its distinctive features.

11. Education and Educators in Post-Renaissance times.

12. The Heuristic Method of Education.

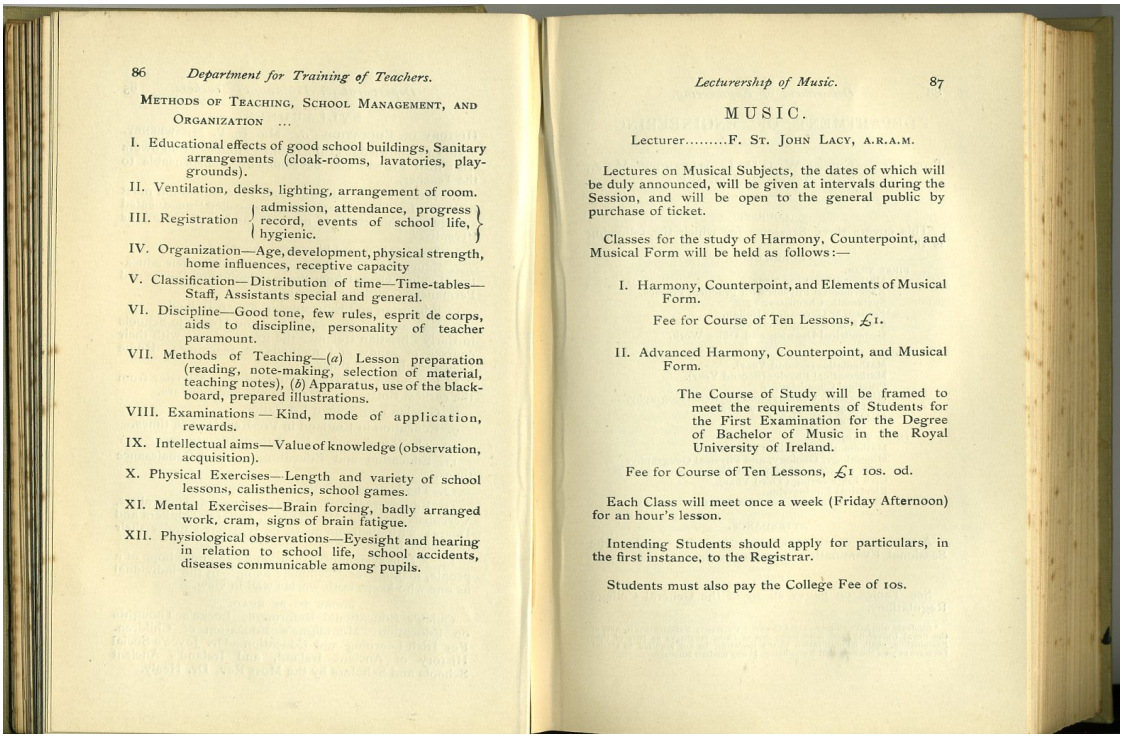
13. Educators classified into (1) Humanists, Naturalists, Verbalists, Stylists, Methodizers, etc., (2) Thinkers and Doers: with their claims to be registered under their respective heads.

14. A true system of education as the only hope of a people, making for "complete living" in the individual as one who keeps both worlds well in view.

BOOKS TO BE READ.

Quick's Educational Reformers; Locke's Thoughts on Education; Montaigne's Education of Children. For Irish Learning and Education—Dr. Joyce's Social History of Ancient Ireland, and Ireland's Ancient Schools and Scholars by the Most Rev. Dr. Healy.

Source: University Archives, UCC.



86 *Department for Training of Teachers.*

METHODS OF TEACHING, SCHOOL MANAGEMENT, AND ORGANIZATION ...

I. Educational effects of good school buildings, Sanitary arrangements (cloak-rooms, lavatories, play-grounds).

II. Ventilation, desks, lighting, arrangement of room.

III. Registration { admission, attendance, progress record, events of school life, hygienic. }

IV. Organization—Age, development, physical strength, home influences, receptive capacity

V. Classification—Distribution of time—Time-tables—Staff, Assistants special and general.

VI. Discipline—Good tone, few rules, esprit de corps, aids to discipline, personality of teacher paramount.

VII. Methods of Teaching—(*a*) Lesson preparation (reading, note-making, selection of material, teaching notes), (*b*) Apparatus, use of the black-board, prepared illustrations.

VIII. Examinations — Kind, mode of application, rewards.

IX. Intellectual aims—Value of knowledge (observation, acquisition).

X. Physical Exercises—Length and variety of school lessons, calisthenics, school games.

XI. Mental Exercises—Brain forcing, badly arranged work, cram, signs of brain fatigue.

XII. Physiological observations—Eyesight and hearing in relation to school life, school accidents, diseases communicable among pupils.

Lecturership of Music. 87

MUSIC.

Lecturer.....F. ST. JOHN LACY, A.R.A.M.

Lectures on Musical Subjects, the dates of which will be duly announced, will be given at intervals during the Session, and will be open to the general public by purchase of ticket.

Classes for the study of Harmony, Counterpoint, and Musical Form will be held as follows:—

I. Harmony, Counterpoint, and Elements of Musical Form.

Fee for Course of Ten Lessons, £1.

II. Advanced Harmony, Counterpoint, and Musical Form.

The Course of Study will be framed to meet the requirements of Students for the First Examination for the Degree of Bachelor of Music in the Royal University of Ireland.

Fee for Course of Ten Lessons, £1 10s. od.

Each Class will meet once a week (Friday Afternoon) for an hour's lesson.

Intending Students should apply for particulars, in the first instance, to the Registrar.

Students must also pay the College Fee of 10s.

Source: University Archives, UCC.

Practical instruction had to be undertaken in schools that complied with the regulation of the Royal University and recognised by the English Board of Education. During the year 1908-1909, arrangements were made with The High School for Girls, Cork; Ladies' School, 29 South Terrace, Cork and Cork Grammar School. The practical course commenced in early September and university lectures late October. Students applied directly to the Head-Teacher of the school. The Head-Teacher subsequently communicated with the President of the Queen's College.[3]

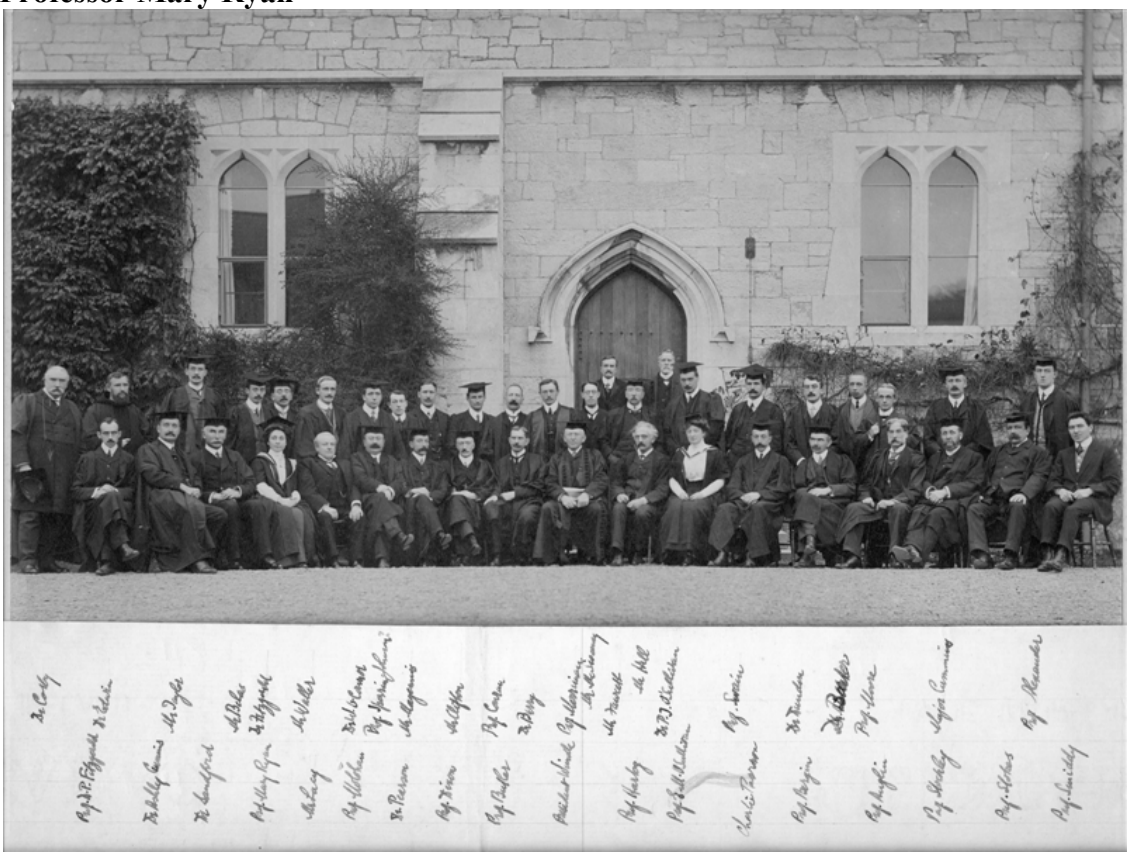
With establishment of the National University of Ireland (NUI) in 1908 two new universities were created in Ireland, the National University of Ireland, with constituent colleges in Dublin, Cork and Galway, and Queen's University Belfast. [4] The first Professor of Education in National University of Ireland Cork, Elizabeth O'Sullivan, was appointed in 1910. O'Sullivan held the Chair from 1910 until 1935. She was succeeded by predominantly female Professors of Education: Frances Vaughan (1936–48); Lucy Duggan (1949–62); Vincent A. McClelland (1969-77); Daniel G. Mulcahy (1978-91); Aine Hyland (1993-2006), and Kathy Hall (2007-).

Elizabeth O'Sullivan attended St. Angela's College, Cork. She left Cork for Dominican College at Eccles Street, Dublin. She took her BA in 1895 and her MA in 1897. She was the first woman student to be admitted to lectures of Fr. Tom Finlay, Professor of Mental and Moral Science the Catholic University College. In 1901-1902 she took a Teacher's Training Course in London that led to a Training Secondary Teachers' Diploma of the Cambridge Syndicate. She took a further course and obtained a further Diploma from the Belgium Department of Industry (Teacher Certificate from Training Practical Technical School, Brussels). Miss O'Sullivan on her return to Ireland in 1904 opened a Domestic Science School in Waterford. She was a Lecturer and an Examiner for the Department of Agriculture and Technical Instruction in subjects, including Theory and Practice of Teaching. In addition, she was an Examiner with the Intermediate Board of Education. With her former school and university companion, Mary Ryan, Miss O'Sullivan was appointed as Lecturer on Methods in Education, UCC in 1909 and became Professor of Education, UCC in 1910.

The Higher Diploma in Education training course began in 1912 and was supported by the regulations of the Registration Council from 1918. The Higher Diploma in Education was offered as the training course for secondary teachers who sought to be registered with the Registration Council. Courses were conducted in late afternoon and evening. Practice-lessons were conducted in local schools. The College authorised assistants to visit and supervise practice-lessons in schools. The total number of students attending lectures in 1912 -1913 was 32. By 1923-1924 the total number had increased to 105.[5] Miss O'Sullivan retired from UCC in 1936. The Department of Education had grown from small beginnings. During her term of office the number of students increased and staff numbers expanded.

[3] *Calendar of Queen's College Cork, Session 1908-9* (Cork: Purcell and Company), p. 84.
[4] *An Act to Make Further Provision with Respect to University Education in Ireland*, 1908. [8 Edward VII, c. 38].
[5] *Report of the President to the Governing Body,* 1912-1913; 1923-1924.

Academic Staff, UCC, 1909-1910 including Professor Elizabeth O'Sullivan and Professor Mary Ryan



Source: University Archives, UCC.

From the 1960s…

There were significant changes in teacher education during the 1960s with the publication of reports such as *Investment in Education Report* (1966), the *Commission on Higher Education Report* (1967) and the Higher Education Authority (HEA) *Report on Teacher Education* (1970). The Higher Diploma in Education was restructured as a one-year full-time course. The route to a teaching qualification had elements of university and school-based experience. The prescribed course of 1962-1963 included

1. Philosophy and Sociology of Education
2. Educational Psychology
3. School Organisation
4. General Methods of Teaching

For practice, students had to undertake

1. A minimum of one hundred lessons, under supervision in a selected school
2. Prepare work plans and lesson notes
3. Discuss and critique practice problems encountered.[6]

[6] *Calendar of UCC*, 1962-1963.

The number of candidates for the Higher Diploma in Education, UCC for the year 1968 was 22. Of those 22, 11 were rejected and 11 passed the summer examination.[7] By 1971, 407 candidates entered, 372 passed.[8] The number of candidates increased to 460 in 1972-1973. Of the 460, 414 passed.[9]

Post graduate work in the School of Education, UCC was re-vitalised during the 1970s when M.Ed. courses were introduced. Ph.D. degrees in education were expanded. In addition, there was an expansion of specialist post-graduate diplomas in education, such as guidance and counselling, and remedial education .[10]

During the 1970s the course content of the Higher Diploma in Education developed further. Courses were conducted by Staff of the Education Department and by 'Specialists'. These courses included

1. The Meaning and Purpose of Education
2. The Psychological and Physical Development of the Adolescent
3. Curriculum, Communication and Method
4. Education and Society
5. A Subject selected from among the following and after consultation with the Professor of Education

    I. Child Psychology
    II. An Introduction to the History of Educational Thought
    III. The Scientific Study of Language
    IV. The Organisation and Administration of Education in Ireland and Great Britain
    V. Religious Issues and Higher Education in Nineteenth-Century Ireland and England
    VI. The History of Education, seventeenth and eighteenth centuries
    VII. Group Dynamics and Education
    VIII. Education, Mass Media and Contemporary Culture
    IX. A Study of Primary Education
    X. Any other subject approved by the Professor of Education[11]

The Professional Diploma in Education

The current Professional Diploma in Education is a full-time programme running for 9 months from the date of first registration for the programme. The course specification reflects a considerable development in the professional training of teachers, and changing needs in Irish education, since the appointment of the first Professor in 1910. Four foundation courses are followed by all students regardless of their specialized teaching subjects: Philosophy and History of Education; Psychology and Sociology of Education; Curriculum Assessment and Technology; Inclusive and Multicultural Education. The specific skills of teaching individual school subjects to pupils in each age group, and at varying levels of learning ability, are covered in Professional Studies - Theories and Practices of Teaching and Learning and Reflective and Professional Practice.

[7] *Report of the President,* 1967-68.
[8] *Report of the President,* 1971-72.
[9] *Report of the President,* 1972-73.
[10] *Calendar of UCC,* 1976-77.
[11] *Calendar of UCC,* 1972-73.

Today there is a provision for practice teaching throughout the school year. All students are required to spend a minimum of 100 hours of personal experience of directly teaching a class or classes in one or more approved subjects. Including the hours spent in directly teaching a class or classes, the students have an overall school experience with second level pupils of circa 200 hours duration. This experience comprises opportunities for systematic observation, for collaborative work with school staff and for structured participation in school life. Teaching Practice is undertaken during the morning hours of Monday to Friday, starting at the beginning of the school year (end of August) and continuing until the end of the school year.

The course content of the Professional Diploma in Education today is significantly more substantial than it was under the first Professor of Education. The program learning outcomes for the Professional Diploma in Education include ability to

- Display a systematic knowledge and understanding in the field of Education;
- Demonstrate a critical awareness of current problems and new insights informed by development in the area of Education;
- Demonstrate a range of standard and specialised research or equivalent tools and techniques of educational enquiry;
- Select from complex and advanced skills in the field of Education and develop new skills to a high level;
- Act in a wide variety of ways appropriate to the teaching profession;
- Communicate conclusions and the knowledge and rationale underpinning these to specialist and non-specialist audiences clearly and unambiguously;
- Demonstrate the ability to self-evaluate, reflect and take responsibility for their continuing academic and professional development;
- Take responsibility for the work of individuals and groups and thus lead and initiate activity in the field of Education.

Conclusion

Impressive structures have now been built within the School of Education, UCC for the professional education and training of teachers that can be traced back to1905.

Eugene McSweeney, Harriet Martin and Elizabeth O'Sullivan laid solid foundations for what is now a vibrant School of Education, UCC.[12] Their contribution was essential in the success of today's School of Education.

The accelerating pace of societal and legislative change and educational reform coupled with the increasingly complex and demanding role of teachers, necessitate a fresh look at initial teacher education.

[12] Incorporating undergraduate courses in Early Years and Childhood education, Sports Studies and Physical Education and postgraduate courses to primary, post-primary, further education and third-level teachers.

The Learning to Teach Study (LETS): Background and Summary

Background to LETS: Funded (2008-10) by the DES

LETS was funded by the Research and Development Unit in the Department of Education and Skills who also provided feedback on a draft of the final report including advice on the policy context. This programme-level study of the PGDE, the first of its kind, would not have been possible were it not for the research grant awarded to the research team. Th

The Executive Summary of the study[13] is available online. The Principal Investigator for the *Learning to Teach Study (LETS): Curricular and Cross-curricular competences in Initial Teacher Education* was Dr. Paul Conway, and the Research Fellow was Dr. Rosaleen Murphy. The other members of the research team (in alphabetical order) were Michael Delargey, Prof. Kathy Hall, Dr. Karl Kitching, Dr. Fiachra Long, Jacinta McKeon, Dr. Brian Murphy, Dr. Stephen O'Brien, Dan O'Sullivan, all from the School of Education, UCC.

Colleagues, both full- and part-time, in the School of Education in UCC who contributed in various ways through discussions about initial teacher education (ITE) in PGDE Committee meetings, cognate group committee meetings and Teaching Practice moderation boards. We would also like to acknowledge the work of Dr Anne Rath (retired), who participated in initial meetings with the DES at the outset of this research study, as well as Hannah Joyce and Stephanie Larkin for their invaluable administrative support.

Summary

The aim of this research, the *Learning to Teach Study* (LETS), the first of its kind on the Postgraduate Diploma in Education (PGDE) in Ireland, funded by the Department of Education and Skills (DES), was to develop and implement a study of initial teacher education in the PGDE in post-primary education, in the School of Education, University College Cork. Its aim was to identify the individual and contextual dynamics of how student teachers develop curricular and cross-curricular competences during initial teacher education (ITE). Within an overall framework that explores how student teachers develop their skills, competences and identity as teachers, it focuses on curricular competences in mathematics, science and language teaching, and on the cross-curricular competences of reading and digital literacy and the development of inclusive teaching practices. LETS is the first programme level research on the PGDE, familiarly known to generations of student teachers and teachers as '*the Dip*' or '*the HDip'*.

Drawing on research on teacher education both in Ireland and internationally, the LETS report is divided into six sections encompassing thirteen chapters. Section 1 includes the review of literature and study aims in Chapter 1 and the research methodology in Chapter 2. Adopting an interpretive approach, LETS involved the collaborative development of three interviews protocols and a survey by the research team. Seventeen (n=17) students were interviewed three times over the course of PGDE programme, and one hundred and thirty three students completed a detailed survey on their learning to teach experience (n=133, i.e. response rate of 62.7% of the 212 students in the PGDE 2008/09 cohort). The four chapters in Section 2 focus on professional identity as a central dimension of learning to teach. Among

[13] http://cora.ucc.ie/bitstream/handle/10468/880/PFC_LearningPV2011.pdf?sequence=1

the dimensions of learning to teach addressed in this section are the role of observation and cultural scripts in becoming a teacher, the visibility/invisibility of PGDE students as learners and the relationships between emotions, resilience and commitment to teaching. The three chapters in Section 3 focus on mathematics, modern languages and science respectively in the context of conventional and reform-oriented visions of good teaching. A number of common as well as subject-specific themes emerged in this section in relation to subject matter teaching. Section 4 focuses on PGDE students' experience of inclusion (chapter 10) and reading literacy (chapter 11) while learning to teach. Section 5 focuses on a key aspect of initial teacher education, namely, the school-university partnership. The final section provides a summary of the findings, identifies seven key issues emerging from these findings, makes recommendations under four headings (system, teacher education institutions, partnerships in ITE and further research) and discusses some implications for research, policy and practice in initial teacher education.

Among the main findings emerging from the study are: (i) schools provide valuable support for PGDE students but this typically does not focus on classroom pedagogy, (ii) PGDE students typically felt that they had to be 'invisible' as learners in schools to gain and maintain authority and status, (iii) inherited cultural scripts about what it means to be a 'good' subject teacher shaped teacher identity and classroom practice, and (iv) as PGDE students begin to feel competent as teachers of maths, modern languages and science, this feeling of competence typically does not include their capacity to teach for inclusion and reading literacy within their subject teaching. In the context of research on teacher education, many of the findings are not unique to the PGDE or to UCC but reflect perennial dilemmas and emerging challenges in initial teacher education. This fact is important in setting a context for the wider dissemination[14] of the *Learning to Teach Study*.

Learning to Teach Study 2: Funded (2012-13) by the Irish Research Council

The Irish Research Council (IRC) funded (2012-13) an extension of LETS focused on three findings from the *Learning to Teach Study (LETS)*: post-primary teachers struggled to enact the meaning of 'real world' experiences in maths, had limited understanding of how reading literacy impacted their subject and while they felt ready to teach did not feel able to promote inclusion. Using LETS, as a unique data set, and extending it based on the three key findings above by focusing on student teacher development (interview, survey and artefacts) to examine how mathematics student teachers, in particular, engage with the 'real world', reading literacy and inclusion. Some preliminary findings from LETS 2 will be presented at this conference. The LETS 2 research team members are: Dr Paul Conway, (PI), Dr Alicia Curtin, Dr Rosaleen Murphy (Research Fellow), Dr Tracey Connolly, Dr Declan Kennedy, Michael Delargey and Dr Vanessa Rutherford (Post-doctoral researcher).

LETS Publications

Murphy, B., Conway, P. F., Murphy, R., Hall, K. (2013, in press). Reading literacy and learning to teach in secondary school: From the background to the foreground. *European Journal of Teacher Education*.

[14] Details of future *Learning to Teach Study* (LETS) research presentations and publications will be available on the LETS webpage in Funded Research section of School of Education, UCC website: http://www.ucc.ie/en/education/research/

Conway, P. F., Murphy, R. and Rutherford, V. (2013) ''Learningplace' practices and Initial Teacher Education in Ireland: knowledge generation, partnerships and pedagogy' In: M. Jones, O. McNamara, J. Murray (eds). *Teacher learning in the workplace: widening perspectives on practice and policy*. Amsterdam: Springer/Verlag.

Conway, PF., Murphy, R., Delargey, M., Hall, K; Kitching, K., Long, F.,McKeon, J., Murphy, B., O'Brien, S., & O'Sullivan, D. (2012) 'Developing 'good' post-primary teachers and teaching in a reform era: cultural dynamics in a programme level study of the 'Dip'' In: F. Waldron, J. Smith, M. Fitzpatrick and T. Dooley (eds). *Re-imagining Initial Teacher Education (ITE): Perspectives on Transformation*. Dublin: Liffey Press.

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Conway, P.F., Murphy, R., Delargey, M., Hall, K., Kitching, K., Long, F., Mc Keon, J., Murphy, B., O'Brien, S., O'Sullivan, D. (2011) *Learning to Teach (LETS): Developing curricular and cross curricular competences in becoming a 'good' secondary teacher*. [Executive Summary]. School of Education, UCC, Cork.

What is Lesson Study?[15]

Lesson Study[16] is a professional development process that Japanese teachers engage in to systematically examine their practice, with the goal of becoming more effective. This examination centers on teachers working collaboratively on a small number of "study lessons". Working on these study lessons involves planning, teaching, observing, and critiquing the lessons. To provide focus and direction to this work, the teachers select an overarching goal and related research question that they want to explore. This research question then serves to guide their work on all the study lessons.

While working on a study lesson, teachers jointly draw up a detailed plan for the lesson, which one of the teachers uses to teach the lesson in a real classroom (as other group members observe the lesson). The group then comes together to discuss their observations of the lesson. Often, the group revises the lesson, and another teacher implements it in a second classroom, while group members again look on. The group will come together again to discuss the observed instruction. Finally, the teachers produce a report of what their study lessons have taught them, particularly with respect to their research question.

Resources: Lesson Study

Hiebert, J., & Stigler, J. (2004). A world of difference: Classrooms abroad provide lesson in teaching math and science. *Journal of Staff Development*, 25(4), 10–15.

Lewis, C., & Tsuchida, I. (1997). Planned educational change in Japan: The shift to student-centered elementary science. *Journal of Education Policy, 12*(5), 313–331.

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Murata, A., Bofferding, L., Pothen, B., Taylor, M., & Wischnia, S. (2012). Making connections among student learning, content, and teaching: Teacher talk paths in elementary mathematics lesson study. *Journal for Research in Mathematics Education, 43*(5). 616-650.

Wang-Iverson, P., & Yoshida, M. (2005). *Building our understanding of lesson study.* Philadelphia: Research for Better Schools.

[15] Source: http://www.tc.columbia.edu/lessonstudy/lessonstudy.html

[16] "Derived from the Japanese word jugyokenkyuu, the term 'lesson study' was coined by Makoto Yoshida...it can also be translated in reverse as 'research lesson' [coined by Catherine Lewis], which indicates the level of scrutiny applied to individual lessons." RBS Currents, Spring/ Summer 2002

Lesson Study: Helping Pre-service Teachers to Bridge the Theory-Practice Gap

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Studies of teacher education have repeatedly revealed a disparity between the theory learned by student teachers in their teacher education programmes and the subsequent classroom practice of these teachers (Allen et al 2010; Cheng et al 2010). Indeed it has been widely reported that a major challenge for teacher educators is helping pre-service teachers (PSTs) put into practice what they have learned in their teacher education programme (Allen, Butler-Mader, & Smith, 2010; Cheng, Cheng & Tang, 2010; Korthagen, 2010). This gap between what teachers know and what they can do has been labelled as a 'performance paradox' (Pfeffer and Sutton 1999, p. 94). Cheng et al (2010) further defined this 'performance paradox' in the teaching profession as, the "inconsistencies between the selection of the best teaching strategies and the most commonly employed teaching strategies" (p. 94). This paper examines this theory-practice problem by reporting on a study that researched how a curriculum specialisation in mathematics education, modelled on the principles of Japanese Lesson Study, could assist pre-service primary teachers to bridge the theory-practice gap. The findings revealed that using the Lesson Study model is an effective approach to help pre-service teachers bridge the theory-practice gap. The classroom-based inquiry approach and continuous guidance from the lecturers teaching the module enabled the PSTs to effectively choose and implement the best teaching strategies.

Short Paper: Introduction

The objective of teacher education programmes is to provide PSTs with a set of skills which enable them to cope with the complex situations they find themselves faced with in their everyday teaching (Cheng et al 2010). However it seems the challenge of teacher education is to help these PSTs put what they have learned in the teacher education programme into practice (Cheng et al 2010). Indeed one of the main criticisms of teacher education programmes is their failure to enable students to bridge this theory-practice gap (Allen, 2009).Several factors have been as identified as contributing to the theory-practice problem. These include:

- the complexity of teaching (Allen et al 2010; Korthagen 2010; Leikin and Levav-Waynberg, 2007)
- PSTs' preconceptions (Hiebert, Morris, Berk & Jansen, 2007; Joram and Gabriele, 1998; Lortie, 1975)
- socialisation towards patterns existing in schools (Frick, Carl & Beets, 2010; Zeichner and Tabachnick,1981)
- the relationship between researchers and practitioners (Klein, 1992; Korthagen, 2007)
- the inadequacy of the theory (Cheng et al, 2010; Hiebert et al, 2007).

Several solutions have been hypothesised and tested in recent years, however the problem still remains. The Japanese approach of lesson study, which treats theory and practice as inseparable entities, has been gaining increasing support in the reform of teaching (Cohan and Honigsfeld, 2006; Hiebert et al, 2002; Lewis, Perry and Murata, 2006; Sims and Walsh, 2009) and more recently researcher have examined how the Lesson Study approach can be adopted in preservice teacher (PST) education (Cohan and Honigsfeld, 2006; Burroughs &

Luebeck, 2010; Sims and Walsh, 2009). Other researchers such as Corcoran & Pepperell (2011) and Cohan & Honigsfeld (2006) examined how lesson study could benefit PSTs. Cohan and Honigsfeld (2006) found that "the lesson study approach is an effective tool for lesson planning, lesson presentation, and lesson evaluations" (p.81). Corcoran and Pepperell (2011) found that "lesson study fosters the collective development of mathematical knowledge" (p.229). This echoed the findings of Leavy (2010) who had previously found lesson study supported PSTs' development of statistical knowledge. However they have not looked specifically at how Lesson Study can be used to bridge the theory-practice gap. The author believes that several aspects of lesson study lend itself to supporting PSTs in adapting new knowledge and beliefs they are being taught, hence helping to bridge the theory-practice gap. It directly connects "to the work of teachers and their students, participant driven and grounded in enquiry, reflection and experimentation and collaborative and involve the sharing of knowledge" (Darling-Hammond & McLaughlin 1995, p.2).

Literature

Lesson Study was introduced in Japan as a form of professional development which Japanese teachers regularly engage in, to examine their teaching practice through the careful planning and observation of lessons (Cohan and Honigsfeld, 2006). Stigler and Hiebert (1999) describe lesson study as an opportunity for teachers to examine their practice "with new eyes". Figure 1 graphically represents the lesson study cycle. The focus of the lesson study cycle is the research lesson. Although these research lessons are taught in the teachers' actual classrooms they differ from everyday lessons in that they comprise of a number of special features. Lewis and Tsuchida (1998) identify the following special features of research lessons: They are carefully planned, with a focus either on a specific goal or developing a successful approach to a specific topic, they are observed by other teachers, they are recorded and subsequent to the teaching of the lesson, the strengths and weaknesses of the lesson are discussed.

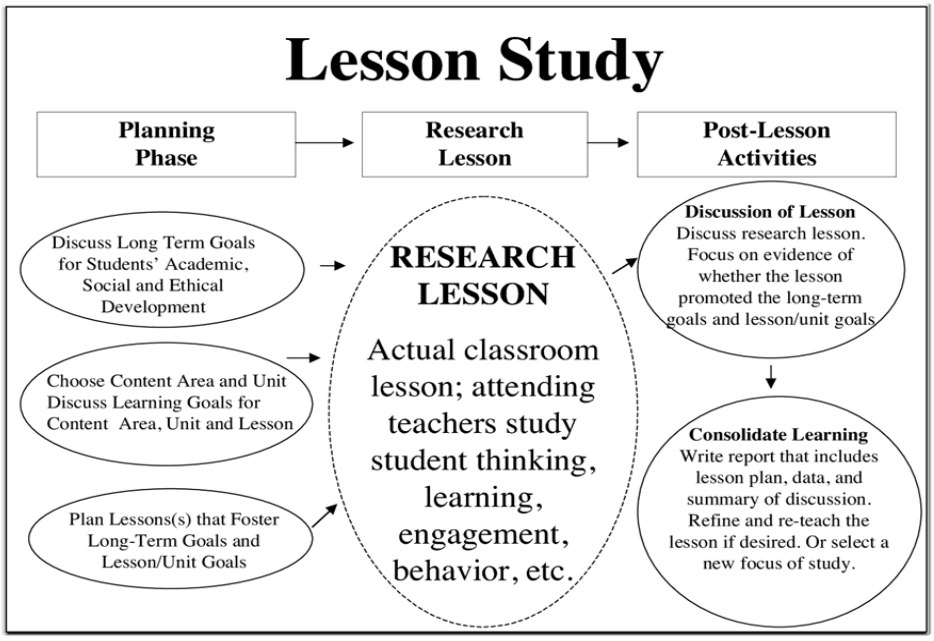


Figure 1: Lesson Study Cycle (Lewis, Perry, Friedkin, Roth, Baker & McGrew, 2012)

Design

The Lesson Study research was carried out over a 12 week spring semester in the context of a curriculum specialisation in mathematics education course offered to final year primary

PSTs. The group consisted of 25 students, who had selected the teaching of mathematics as their specialist area of study. At this stage in their degree programme the PSTs had completed all the compulsory mathematics education courses and all their required teaching practice placements of their degree. As part of this course students were required to take part in a Lesson Study cycle. The course reflected the main components of the Japanese Lesson Study process as outlined in Figure 1. Each of the participants was involved in every aspect of the process. Three members of the mathematics education faculty (Mentors) were responsible for instructing and supervising the lesson study process. The initial weeks of the semester involved introducing students to the Lesson Study process and preparing for Lesson Study. The participants were divided into five groups of five and then each group was assigned a different topic of either algebra or probability. The groups then researched the relevant theory surrounding their topic, worked collaboratively on the lesson preparation and met with at least one mentor 3/4 times during this planning phase, where they received feedback on their lesson planning. The groups then followed the steps of the lesson study cycle (which can be seen in Table 1). In the study only qualitative data were collected. However a variety of data collection techniques were used. The primary qualitative methodology was participant observation which included in-class observation of teacher practice and observations of Lesson Study group meetings (which were also recorded and transcribed). Modelled on the procedures used by Sloane and Leavy (2008) data collection methods adopted were closely synchronised with the stages of the lesson study process. Table 1 illustrates the relationship between the data collection procedure and the Lesson Study cycle.

STEPS OF THE LESSON STUDY CYCLE	**DATA COLLECTION STRUCTURE AND METHOD**
STEP 1: Collaboratively Planning the Research Lesson →	Audio taped meetings with researcher Written logs of group discussions Record of resources used to research and design lesson
STEP 2: Seeing the Research Lesson in Action →	Observation of lesson by researcher Observation notes of lesson study group members
STEP 3: Discussing the Research Lesson →	Audio taped group meetings of researcher, faculty member and lesson study participants following the lesson
STEP 4: Revising the Lesson →	Written logs of group discussion Record of changes made to revised lesson and justification of those changes
STEP 5: Teaching the New Version of the Lesson →	Videotaped lesson Observation of lesson by researcher Observation notes of lesson study group members
STEP 6: Sharing Reflections about the New Version of the Lesson →	Written logs of group discussion Record of changes made to revised lesson and justification of those changes Videotaped group presentation of their work Group interview with researcher

Table 1: Synchronisation of the data collection methods with the lesson study process

Findings

Through examination of the data from the various data sources valuable insights were gained into the PSTs' learning throughout the lesson study process. The main finding of this investigation was that Lesson Study helped the PSTs to adopt the best teaching strategies in their lesson planning and implementation. This was the result of both the careful guidance of the mentors in throughout the process and through first-hand experience of the effectiveness of these strategies in the classroom.

Reiterated the Purpose and Importance of Different Aspects of the Lesson:

From the initial drafts of the PSTs' lesson plans it was clear that the PSTs weren't applying the knowledge from their previous modules in their classroom practice. The aspects of the lesson which the PSTs most frequently neglected in their lesson planning were; the lesson objectives, the introduction and the conclusion. The mentors brought these issues to the attention of the PSTs during the feedback meetings. They gave them feedback on how they could improve these aspects of their lesson and why they were so important. This feedback was reflected in subsequent lesson plan drafts and in their reflections and presentations where the PSTs demonstrated a greater understanding of the purpose and importance of these aspects of the lesson.

"We felt that we had lost our mathematical focus but because we had clear objectives we were able to go back and think, what are we trying to do in this part?" (Pia, Group 3, Presentation)

"The introduction to the lesson succeeded in grabbing their attention…and as a result were stimulated and engaged from the beginning, which made them eager to investigate the topic further" (Grainne, Group 2 Reflection)

"This [the concluding activity] allowed the teacher to grasp the children's understanding and their conceptualisation of the lesson and enabled her to probe into why certain children chose certain answers" (Darina, Group 4, Reflection)

Purpose of the Activities

As a consequence of their improved lesson objectives and with guidance from the mentors the PSTs began to critically examine the purpose of the activities they were including in their lessons. This differed from previous teaching practices where PSTs had "put activities into their lessons to kind of be the singing and dancing element in case the supervisor comes into the room" (Sophie, Group 5, Interview). Whereas lesson study allowed them to critically examine activities in their lesson plan and make decisions such as; "it wasn't an activity that we needed for assessment, it wasn't an activity that was going to teach anything new…you know there wasn't a real purpose or point to it so…you…say 'no look we don't actually need this'." (Sophie, Group 5, Interview) Comments like this represent a major change of emphasis in the reasons PSTs had for choosing activities.

Anticipating Students' Responses:

In the planning phase of lesson study particular attention is paid to anticipating student responses in order to enable teachers to be better prepared to deal with As the PSTs were not able to "draw on their past experiences" and "observations of their current students" (Fernandez and Yoshida 2004, p. 7) in order to anticipate student responses, the PSTs relied on the experience of the mentors and relevant research to help them. Anticipating student responses allowed the PSTs deal effectively with issues that might arise during the course of the lesson (Fernandez and Yoshida, 2004). For example in the algebra lesson (Group 1) a student wrongly identified the algebraic pattern the class were working on. The teacher,

whose group had prepared for this error, was able to guide the student to the correct answer using suitable manipulatives. The teacher later commented that knowing this error may arise meant she had a solution ready which helped maintain the flow of the class and gave her confidence.

Using a Context in Mathematics Teaching:

The importance of using a context in the teaching of mathematics is strongly encouraged in the mathematics primary school curriculum. This was something which all the groups recognised at the beginning of the lesson study process. However the contexts originally chosen by three of the groups were not appropriate or meaningful for the class group. For example one group chose the fairy tale, Goldilocks and the Three Bears, as the context for their lesson. This issue was flagged by the mentors in the initial group meeting and the groups subsequently changed their contexts. These changes proved to be very successful in the teaching of the lessons, in particular for 2. They elected to show a video clip of the TV programme, Top Gear rather than the fairy tale context they had originally chosen. In their meeting after the lesson, all of PSTs in that group remarked how important their context had been in immediately sparking the students' attention and engaging them in the lesson.

Tweaking Lesson Management to Improve the Flow of the Lesson

Several issues relating to classroom organisation, pacing of activities and decisions about sequencing arose following the first teaching of the lesson. In the subsequent meetings the mentors gave the PSTs feedback on how they should deal with these issues in a classroom situation. Practical strategies for dealing with particular classroom issues were suggested. For example in group 2 the PSTs found that the students were dictating the pace of the lesson. "A practical solution which arose from this [the meeting] was limiting time and providing the class with a five second countdown." (Keira, Group 2, Reflection). Group 3 were advised of strategies to use when distributing and collecting materials to improve the flow of the lesson. The PSTs reported how they felt these changes would benefit their lesson; "Making sure all the materials we were using were ready to go…so that the flow of the lesson was not disturbed and the children were not losing focus" (Darina, Group 3, Reflection).

Role of the Mentor in the Lesson Study Process in Initial Teacher Education

The role of the mentor was hugely important throughout the lesson study process. In the initial planning phase they brought to the attention of the PSTs aspects of their lesson planning that needed more attention. In particular in respect to those aspects mentioned earlier; the objectives, the introduction, the conclusion and the purpose of the activities. In their reflections and their presentations the PSTs regularly acknowledged the guidance from the mentors.

"The initial feedback we received from lecturers recommended the establishment of a realistic context". (Group 2, Assignment)

"From our meetings with the maths team I learnt the importance of prediction when carrying out probability games" (Bernadette, Group 3, Reflection).

"The most useful thing that I have taken from lesson study…was the importance and value of activities… This became evident after the first lesson, brought to our attention by the maths lecturers." (Orla, Group 3, Reflection)

They also provided a critical perspective during the implementation stage. They gave advice to the PSTs on different aspects of their lesson they could improve. This 'outside perspective' was appreciated by the PSTs.

"It was useful to have an outside influence, as we had become so engrossed the lesson, it was difficult to detach ourselves and see it from an objective prospective" (Orla, Group 3, Interview).

Finally the PSTs had very little experience of teaching the topics which were taught during lesson study therefore they were invaluable in providing insights into teaching the topic. They also were able to deal with any misunderstandings that the PSTs had regarding their mathematical content knowledge.

Conclusion

Implementing the lesson study model as part of the primary pre-service course proved to be an effective approach to help PSTs bridge the theory-practice gap. The PSTs developed several valuable skills; they learned the importance of using a context to engage their students with mathematics, they learned the importance of understanding student thinking and anticipating their responses; they learned valuable instructional techniques and they learned to analyse their lessons in view of learning goals. This was similar to the findings of Sims & Walsh (2009) who found that through lesson study the PSTs learned to think more deeply about learning goals and began to analyse the success of their own lessons in terms of these learning goals. Hiebert et al. (2007) suggest "that assessing whether students achieve clear learning goals and specifying how and why instruction did or did not affect this achievement lies at the heart of learning to teach from studying teaching" (p.48). Therefore implementing a lesson study approach, with the necessary support, in initial teacher education has the potential to help PSTs bridge the theory-practice gap and become better teachers.

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LET'S build together: some insights on school-university partnership from the Learning to Teach Study (LETS)

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Abstract

Against the background of current changes in initial teacher education in Ireland and the Teaching Council's Policy on the Continuum of Teacher Education (2011) there is a growing acknowledgement of the need for partnership to promote teaching and learning in initial teacher education. This acknowledgement derives from the recognition that collaboration between stakeholders optimises synergy, and within the context of Wenger's work develops a Community of Practice (1999).

Thinking on how we teach for the professions, Shulman (2005) explains signature pedagogies as types of teaching that organise fundamental ways in which future practitioners are educated for their new professions. A partnership approach holds much potential to strengthen the signature pedagogy of initial teacher education. More recently Meyer and Land (2012) have explored the significance of threshold concepts for teaching and learning. A threshold concept can be considered as akin to a portal, opening up a new and previously inaccessible way of thinking about something. As well as potentially developing the signature pedagogy in initial teacher education, partnerships can potentially further engagement with the threshold concepts.

Research findings from LETS 1 (2008-10) and LETS 2 (2012-13) of student teachers experiences and views on school university partnership provide the lens for this paper. These findings are explored in the context of identifying and developing approaches to school university partnership as a means to strengthen initial teacher education. The paper situates these findings in relation to the key challenges for teacher educators today.

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Learning to Teach Mathematics – Really!

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BACKGROUND:

The Learning to Teach Study (LETS), 2010 developed and implemented a study of initial teacher education in the Postgraduate Diploma in Education. The mathematics component of LETS (Conway *et al.*, 2010) yielded four findings concerning how student teachers learned how to teach mathematics.

OBJECTIVE

How do student teachers become competent teachers of mathematics?

METHODS

LETS data collection involved semi-structured interviews (n=17), analysis of documents and survey questionnaire (n= 212, response rate of 63%)

RESULTS

- The appeal and associated challenges of 'real-world' mathematics
- The dynamics and consequences of support in schools on learning to teach mathematics
- The mediating role of the methods module in Initial Teacher Education
- The challenge of using resources

CONCLUSIONS

Future mathematics teachers must be competent in the pedagogy for the successful implementation of Project Maths and its emphasis on problem solving through the use of contexts. In particular, the findings present significant challenges in relation to the implemenation of the realistic mathematics education (RME)-inspired (see Conway and Sloane, 2006) Project Maths.

Novice teachers as 'invisible' learners

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Paper published in *Teachers and Teaching: Theory and Practice*, 18:6, 619-636 (2012)

http://dx.doi.org/10.1080/13540602.2012.746498

Abstract

The present study focuses on the way novice teachers, who are part of a one-year postgraduate diploma in post-primary teaching, have opted to negotiate their status as school teachers. In particular, it asks why novice teachers prefer to hide as they scramble to learn how to teach. On the basis of three separate interviews spaced out though the teaching year 2009 (January, March, May), a team of university-based tutors probed for student reactions to competence-based issues. Adopting a sociocultural perspective, this study drew upon roughly 10% of the pre-service student cohort (n=17), each in a different placement location. The study looked, in particular, at their negotiating power, particularly the effect of school supports for their reality as learners. Findings suggest that without quality mentoring support, our pre-service teachers prefer to become 'invisible' as learners. Three pre-professional stances are identified: fragile, robust and competitive. The key finding is that none of these pre-professional stances mitigate pre-service students' lack of negotiating power. On the other hand, informal school-based supports can help students considerably.

The emergence of reading literacy in post-primary teacher education: From the background to the foreground

Brian Murphy, Paul F . Conway, Rosaleen Murphy & Kathy Hall

Abstract

While recognising the fact that historically teacher education and adolescent literacy are two fields that have had limited intellectual contact, the development of reading literacy is increasingly now accepted internationally as a core responsibility of all teachers and teacher educators. Adopting a socio-cultural perspective, this paper[17], drawn from the *Learning to Teach Study* (LETS), focused on the beliefs, knowledge, and experiences regarding reading literacy of Irish post-primary student teachers on one initial teacher education (ITE) programme. The data was collected through three interviews with each of 17 student teachers. Results suggest that the surveyed student teachers had some concerns about their own literacy, had narrow conceptions of literacy, tended not to see it as their responsibility, held a minimal threshold view of literacy, and viewed new digital technologies as a resource and motivator for their students' literacy learning. Results are discussed in terms of how student teachers' knowledge of literacy in ITE programmes could be reframed, extended and deepened.

Keywords: reading literacy, teacher education, learning to teach, socio-cultural, post-primary, literacy definitions, adolescents

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‘Learningplace’ practices and Initial Teacher Education in Ireland: knowledge generation, partnerships and pedagogy

Paul F. Conway, Rosaleen Murphy and Vanessa Rutherford

Abstract

Informed by key ideas from the learning sciences (i.e. metaphors, resources and levels of learning), this chapter addresses some challenges in initial teacher education in Ireland and identifies a number of potentially generative concepts from workplace learning research that might advance policy and practice. The main point of this chapter[18] is that, more often than not, work rather than learning appears to be the leading activity in schools during initial teacher education, and that reframing the school as a ‘learningplace’ is central to both teacher education reform and widening the scope of workplace learning research. The challenges are: (i) invisibility-visibility of learners and learning; (ii) solo and assisted performance; (iii) reframing the knowledge-practice relationship; (iv) school-university partnership: which model(s)?; and (v) advancing learning at the system level. In light of workplace learning research, ‘generative concepts’ from the research literature are identified that might inform future research, policy and practice.

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Learning to Teach Study (LETS): developing cross-curricular competences in becoming a 'good' secondary teacher

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Abstract

This study is part of the *Learning To Teach Study (LETS): developing cross-curricular competences in becoming a 'good' secondary teacher*. It explores the developing curricular knowledge in a second/foreign language among a group of student teachers. It examines how their understandings of communicative language teaching evolve during the course of the PDE programme. The data are taken from interview transcripts which took place based on interviews of 17 student teachers which took place three times over the course of the PDE programme. The role of the context of their teaching placement, their previous experiences of learning and in particular second/foreign language learning and the interplay of theory and practice were all found to impact on their developing understandings in complex and unique ways.

Exploring Lesson Study as a Model of Peer-to-Peer Professional Learning

Paper submitted for conference proceedings, UCC, 2013

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Abstract

Lesson Study (LS) is a relatively new approach to professional learning that focuses on collaborative professional learning between teachers in schools. This paper reports on a project in which the LS method was used by teachers to generate collaboration and collegial engagement in improving agreed aspects of classroom practice. LS is founded on a form of 'community of practice' in which teachers share experiences and learn together. The teachers in the project reflected on specific classroom challenges (for example, improving literacy levels or helping students to grasp difficult aspects of the curriculum) and found the LS approach to be a successful form of professional development. They were of the view that working with others to plan and design lessons was a very beneficial way to share good practice and to broaden teaching, while the experience of observing other teachers' practice enabled the creation of a culture of meaningful reflection and discussion about how young people learn.

Introduction

In 2009/10, the General Teaching Council for Northern Ireland (GTCNI), in conjunction with the Regional Training Unit and the School of Education at Queen's University Belfast, launched a pilot project in eight schools in Northern Ireland to trial Lesson Study (LS) as a model of peer-to-peer professional learning (Galanouli, 2010). The success of the pilot prompted a follow-up SCoTENS-funded cross-border project with two secondary-level schools, one each in Cavan (Republic of Ireland) and Belfast (Northern Ireland). The project was facilitated by the GTCNI and was organised by colleagues in the School of Education at Queen's University Belfast and the Department of Home Economics in St Angela's College, Sligo. This paper is drawn from the final report of the project and sets out how the following key research questions were addressed:

1. Can LS offer an effective school-based and peer-to-peer approach to staff development in schools?

2. What factors facilitate or hinder the improvement of pedagogy and ultimately learning through LS?

Literature

Known as *Jugyokenkyu*[19] in Japan, where it has been in regular use for over 100 years, the Lesson Study (LS) approach[20] is best considered as a rounded and long-term professional development activity rather than simply the study of a lesson or lessons. However, the improvement of classroom pedagogy is a central pursuit. In contrast to mentor-mentee and coaching contexts, the core of the LS process is its peer-to-peer approach. Its key features are self and collective reflection, experimenting with teaching techniques, and sharing experience. The efficacy of LS in promoting professional learning has been claimed by a number of researchers, most notably by Stigler and Hiebert (1999) in the United States who attributed the 1999 TIMSS success in mathematics in Japanese schools to its regular use by Japanese teachers. Other researchers (e.g. Fernandez and Yoshida (2004) and Cerbin and Kopp (2006)) have extended the research base, primarily in the area of mathematics education with strong endorsements of the potential of LS to effect improvements in pedagogy and, as a consequence, student learning and outcomes. On foot of such research, Lewis and her colleagues in the USA (2006) described how, within just a few years, more than 330 schools were using LS across 32 states and it had become the focus of many conferences, reports and articles.

Collaborative approaches to professional development have been used in the UK for many years and the evidence points to considerable potential for school improvement initiatives (see for example the systematic reviews on the EPPI-Centre website[21]). In relation to LS specifically, several researchers have examined its use in mathematics in schools including Burghes and Robinson (2009), Tall (2008) and Corcoran *et al* (2011). However, it was arguably the work of Pete Dudley (2005, 2008a) that initiated the broadening of the focus across the whole school curriculum and across the primary and secondary school sectors.

Design

Data collection for the project was undertaken from the autumn of 2010 through to September 2011. At the beginning of the project, the schools identified the project coordinators and LS teams, and the themes on which they chose to work. The project was explained in detail to both groups of teachers and their consent, and the consent of their students, was sought and received. School 1 (Belfast) had two teams of three teachers involved in LS work on the themes: Assessment for Learning (AfL) and Literacy Development (LD) respectively. The teams worked 'vertically' with students from different year groups (range: Year 8 - 11); and across the subjects: drama, history and sociology for the AfL team; and science, English and geography for the Literacy Development team. School 2 (Cavan) chose the teaching of aspects of microbiology as the theme for their group of three teachers with classes in the same 6th year student group. Team members met throughout the

[19] A useful glossary of LS-related terms may be found on the US-based Research for Better Schools website: http://www.rbs.org/Special-Topics/Lesson-Study/Glossary-of-Lesson-Study-Terms/212/

[20] Examples of resources outlining LS approaches may be found on the UK Lesson Study site http://lessonstudy.co.uk/about-2/ or the Lesson Study Group at Mills College, USA http://www.lessonresearch.net/resources1.html

[21] EPPI-Centre, Institute of Education, London http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=274#intro

project at various events including an LS conference organised by the GTCNI. These events enabled the teachers to discuss and share experiences. Data analysis was an ongoing process from the beginning of data collection and involved observations from the LS teams on planning meetings, jointly planned lessons, group and self-reflections, student evaluations, video capture of taught lessons and focus group sessions with students. These were complemented by one-to-one and focus group interviews between the research team and the teachers in each school.

Findings

LS effectiveness for peer-to-peer professional development

All of the teachers praised the LS approach as an effective model for professional development for both experienced and newly qualified teachers. They explained that its flexible and ongoing nature was better than other models of professional development, which tend have a more prescribed format and limited impact. They also reported that involving students in the project gave them valuable insights into their own practice from the students' perspective. Arguably too, the involvement of the students more strongly grounds the professional development in classroom practice and is more explicitly relevant to the classroom process than conventional professional development away from the classroom.

Impact on student learning

There was no formal attempt in the project to try to assess impact on student outcomes through examinations, tests etc. but the reflective comments of the teachers revealed their professional opinions that learning had been improved by the pedagogical tactics that they planned and tried out.

Observing and being observed

One aspect of LS which had the potential to cause difficulty was the core process of the teachers being observed by their colleagues while delivering the jointly constructed lessons. However, all of the teachers confirmed that being observed or observing was very valuable and that they enjoyed it despite at times being apprehensive about it. It was emphasized from early in the process that it was not the teacher who was being observed but the learning and teaching process and its impact on the students.

Obstacles hindering the LS process

Many of the teachers reported that the major obstacle to adopting the LS method was that enduring problem in all types of professional development: time; time for engaging with colleagues, time for trying out new ideas etc.

Conclusion

The project set out to explore whether LS can offer an effective school-based and peer-to-peer approach to staff development in schools and the feedback data from the participating teachers roundly endorses the view that it can and does. The teachers' reflections on the processes in which they were engaged included positive perceptions of the LS approach directly or indirectly:

- promoting self and collective reflection on classroom practice and student learning;
- enabling a non-threatening and constructive peer-to-peer process of improving classroom teaching;
- promoting successful collaborative professional development on classroom pedagogy across a range of school subject areas, specific learning challenges (e.g. literacy development) and student age ranges;
- enabling opportunities to experiment with teaching approaches, resources and lesson planning;
- engaging students more actively and directly in their own learning, and in the planning and evaluation of teaching methods and classroom activities.

The positive feedback was perhaps unsurprisingly tempered by the enduring problem of insufficient time for teachers to work collegially, to plan and evaluate and to experiment with new techniques.

Overall the project addressed its objectives and to have added a formal evidence base to the growing literature on using lesson study to improve classroom teaching, and student learning and outcomes.

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Out-of-Field Teaching in Post-Primary Mathematics Education: An Analysis of the Irish Context.

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Abstract

Widespread coverage in the national media has highlighted the underperformance of Irish second level students in mathematics. Smith (2004) emphasises that an adequate supply of suitably qualified mathematics teachers is an essential prerequisite for delivering long term improvements at second level mathematics education. Thus, the aim of this study was to investigate the level of out-of-field teaching occurring in Irish post-primary mathematics classrooms. A stratified random sample of 60 schools was selected with a target sample of approximately 400 teachers (margin of error of ± 5% with a 95% confidence level). The study was quantitative in nature with 324 questionnaires returned and a response rate of 85%. The study found that 48% of teachers teaching mathematics at post-primary are not specifically qualified to do so. These teachers are primarily deployed in the Junior Cycle years and with the weaker students. Surprisingly, 63% of out-of-field teachers felt that their qualifications were adequate to teach mathematics. It is essential to address the CPD needs of these teachers, and develop initial teacher education programmes, with a focus on mathematical *and* pedagogical knowledge, in order to tackle the issue of out-of-field mathematics teaching in the Irish context.

Lesson Study as a context for Teacher Professional Learning

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Abstract

Since 2010 there has been a phased introduction of a new post-primary mathematics curriculum entitled 'Project Maths' in Ireland. This new curriculum implies not only changes in mathematics content, but also changes to teaching and learning approaches within the classroom. This research investigates a model of professional development for newly qualified and experienced teachers based on a theoretical frame of a community of practice engaging in the task of lesson study. Participating in lesson study has been shown to improve teachers' content knowledge and pedagogical content knowledge. In this research, this model of professional development has been introduced in two Irish post-primary mathematics departments. The research investigates how effective this approach may be in developing the particular pedagogical practices envisaged by a new curriculum. The research also hopes to identify the features which support changes to teachers' professional and pedagogical practices as a result of their participation in lesson study. This research may also provide a suitable model for initial teacher education, within which pre-service teachers may engage with their co-operating teachers and school mathematics departments through their engagement in lesson study.

Short Paper: Introduction

Project Maths is a reform of the mathematics curriculum in Ireland. In 2008, 24 schools began Phase 1 of Project Maths introducing revised strands of the curriculum. In 2010 the national phased roll-out began and will be completed by 2015. Project Maths was designed to change not just what students learn about mathematics, but how they learn and how they are assessed (Jeffes et al., 2012). The curriculum is based on an inquiry-based approach where learners' active participation and sense-making is an important basis in designing the teaching and learning approaches (Cobb, Jaworski, & Presmeg, 1996; Forman, 1996; Lynch, 2011). Project Maths represents a philosophical shift in Irish post-primary classrooms from a highly didactic approach with relatively little emphasis on problem solving (Lyons, Lynch, Close, Sheerin, & Boland, 2003; Oldham, 2001), towards a dialogic, investigative, problem-focused approach to teaching and learning mathematics.

Effective curriculum reform requires a change at the individual teacher level focusing on teachers' beliefs (Harris, 2003; Hopkins & Reynolds, 2001). Teachers will either respond to imposed curriculum by embracing change or, more often, resisting, ignoring or modifying the curriculum change simply because their beliefs are being imposed upon (Fetters, Czerniak, Fish, & Shawberry, 2002; Jenkins, 2000; Van Driel, Bulte, & Verloop, 2007; Van Driel & Verloop, 2002). In this research the introduction of a community of practice, focused on the task of lesson study, within a post-primary mathematics department aims to provide a structured model of professional development where dialogue on teaching and learning can

be considered and reflected upon and where teachers' are afforded the opportunity to engage creatively and meaningfully with the curriculum.

In the background of curriculum change, teachers from both phase 1 & 2 schools have participated in the research. The research investigates how effective this model may be in developing the particular pedagogical practices envisaged by a new curriculum. The research also hopes to identify the features which support changes to teachers' professional and pedagogical practices as a result of their participation in lesson study. This research may also provide a suitable model for initial teacher education, within which pre-service teachers may engage with their co-operating teachers and school mathematics departments through their engagement in lesson study.

Literature

The project is informed by three inter-connected literatures: professional development, communities of practice and lesson study. Following initial teacher education, teachers should continue to engage in professional development. Such opportunities which encompass reflection on practice can have substantial impact on teachers' beliefs, knowledge and practices which in turn impacts on student learning (Villegas-Reimers, 2003) (Eurydice, 2011) (Fetters et al., 2002). It has also been argued that these professional development opportunities should be subject-specific in order to integrate new methodologies and resources for both newly qualified and experienced teachers (Smith, 2004) (Yow, 2008).

It is widely recognized that teacher communities figure among the most important factors for promoting educational change (de Lima, 2001; Grossman, Wineburg, & Woolworth, 2001; Louis, 2006; McLaughlin & Talbert, 2001; OECD, 2009; Stigler & Hiebert, 2009; Wineburg & Grossman, 1998). Within the many forms of community referenced in the literature, there are a number of common characteristics such as: collaboration, collective responsibility, shared values, meaningful relationships, reflective personal inquiry, collaboration and promotion of group as well as individual learning (Grossman et al., 2001; Louis, 2006; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006; Wenger, McDermott, & Snyder, 2002). In this research, it is necessary to introduce a further two features of community of practice to those proposed by Wenger (Lave & Wenger, 1991; Wenger, 1998). A feature of 'situated realism' recognises the unique environments of schools and individual work settings. A feature of 'shared meaning' (Bohm, 1996) acknowledges the importance of dialogue within a community (Burbules, 1993).



Figure: Features of Community of Practice

In this investigation teacher participants in the community of practice will engage in the task of lesson study. Lesson study is a teacher-oriented and teacher-directed practice where members of a community determine a particular goal for their teaching and examine their practice through planning, conducting, observing and reflecting on specific lessons (Corcoran, 2007; Fernandez, 2002; Fernandez & Chokshi, 2002; Lewis, Perry, & Murata, 2006) (Lewis & Hurd, 2011; Zawojewski, Chamberlin, Hjalmarson, & Lewis, 2008) (Isoda, 2010; Isoda & Katagiri, 2012) (Stigler & Hiebert, 2009). It is important to note here that it is not the 'product' of the research lesson or lesson plan which is of import, but rather the process of teachers collaborating and conversing with one another (Corcoran, 2007) (Lewis & Hurd, 2011; Lewis, Perry, & Hurd, 2009).

Design

The investigation was conducted as a case study in two post-primary school sites. All participants in the study were members of the mathematics department and took part in the research on a voluntary basis. The two sites were not heterogeneous since schools involved in both phases 1 and 2 of the national curriculum change process participated in the research.

Over the course of one academic year, all meetings and research lessons of the teacher community were recorded and each participating teacher was interviewed on three occasions. Lesson study cycles were repeated throughout the academic year with a focus on different areas of the curriculum.

Researcher field notes and supplementary artefacts such as teacher notes, lesson plans, and samples of student work were also collected during the data generation.

Findings

Although the research is in its initial stage of data analysis, a number of findings have emerged. Each of the participating teachers have expressed an increased focus on and noticing of student thinking. This finding is important as the literature suggests a connection

between a focus on student thinking and increased engagement of students in lessons (Cerbin & Kopp, 2006; Fernandez, 2002; Lewis et al., 2009).

Newly qualified teachers participating in the research have expressed greater confidence in their content knowledge and pedagogical content knowledge due to their participation in the community of practice (Ball, Thames, & Phelps, 2008; Shulman & Shulman, 2004). While these findings may be expected {Lewis}, the inclusion of content knowledge is noteworthy. These findings suggest that lesson study within a community of practice might usefully be introduced within initial teacher education where pre-service teachers can work with their co-operating teachers and mathematics departments in partner schools. Experienced teachers have expressed less of a change in confidence in their content knowledge but have expressed an increased awareness of different teaching approaches and increased confidence in implementing new practices.

The research has identified teachers' enhanced engagement with the new curriculum due to their participation in the task-based community of practice. This is particularly relevant in the phase 2 school which, in contrast to the phase 1 school, did not receive external support during the national curriculum change process.

Conclusion

This research has implemented a model of professional development within two post-primary mathematics departments. This intervention was based on a theory of community of practice and teachers were provided with a framework from which to critically reflect on their teaching by engaging in, conducting and reflecting on research lessons. The research was undertaken as a case study in two sites with the researcher acting as participant-observer. Qualitative data was generated through recorded teacher meetings, research lessons and teacher interviews. The proposed features of community of practice have emerged and developed. Initial findings suggest that both teachers' content knowledge and pedagogical content knowledge have been enhanced, with newly qualified teachers in particular professing increased confidence. Teachers have also professed changes to their teaching approaches, in accordance to those encouraged in the curriculum, and an increased awareness of student thinking. The sustainability of this model of professional development will be further assessed with future observation of both mathematics teacher communities in the next academic year. This model will also be suggested as a model of teacher education for pre-service teachers.

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Opportunities gained, Opportunities lost: The reality of supervision communities on school placements

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Abstract

The aim of a successful school placement is to "enable the PST (pre-service teacher) to put into practice the theoretical components of their course and engage in experiential learning" (Moody, 2009, p. 157). For this to occur and be successful, the teacher must adopt many roles, such as advisor, observer, role model and critical friend. The adoption of these roles must occur through appropriate training by the teacher education institution, as there is an urgent need to address the role of the cooperating teacher (CT) in the school placement process. Developments in contemporary politics of teacher education policy in Ireland reflect a shift in attitudes and highlights that the "time is ripe for a fresh and thorough look at teacher education" (Teaching Council, 2011, p. 6). This research is significant to current developments in physical education teacher education as further work is required to enhance initial teacher education through developing the expertise of teachers to supervise PSTs effectively on school placements.

Introduction

Research highlights the need to put measures in place to establish clear lines of communication between the university and the school placement schools and the development of mentoring systems (Beck and Kosnik 2002, Borko and Mayfield 1995, Caires and Almeida 2005).This study examines the challenges faced by the CT in buying into working within a professional framework in a country where there is no national formalised system as regards support for PSTs or beginning teachers. There is no equity of experience for PSTs in Irish post-primary schools due to the lack of a tradition of supervision in schools and poor school-university partnerships (Conway et al., 2011). The absence of formalised and structured roles for CTs has resulted in a fragmented system lacking in consistency (Moody, 2009). There are many CTs who resist involvement in any form of supervision whilst PSTs are on placement in their schools. However, there are CTs who provide supportive and engaging learning environments for PSTs and are willing to develop the role of the CT in the supervision process. It seems the time is favourable for the development of a formalised structure of supervision, with associated training and support, as teachers are interested and engaged. Developments in contemporary politics of teacher education policy in Ireland reflect a shift in attitudes and highlights that the "time is ripe for a fresh and thorough look at teacher education" (Teaching Council, 2011, p. 6). This research is significant to current developments in physical education teacher education as further work is required to enhance initial teacher education through developing the expertise of teachers to supervise PSTs effectively on school placements. The theory of situated learning (Lave & Wenger, 1991) provides a framework for examining the experiences of CTs as they strive to contribute to professional learning communities.

Literature

Effective school-university partnerships can enhance a PST's experience and encourage more experienced teachers to become CTs. International literature alludes to the lack of formalised links between teacher education institutions and schools (Beck and Kosnik 2000, McCullick 2000) and a similar concern is noted in Ireland (Conway et al. 2009). Acknowledging this concern, *Initial Teacher Education: Criteria and Guidelines for Programme Providers* (Teaching Council, 2011) recommends that "new and innovative school placement models should be developed using a partnership approach, whereby HEIs and schools actively collaborate in the organisation of the school placement" (p.16). At present school placement partnerships are voluntary with CTs following an "informal support and guidance role" (Conway 2009). The aim of this study was to examine the reality of a being a CT and acknowledging what is feasible in creating effective school placements. The aim of this study was to examine the intricacies of the learning trajectory of CTs when responsibility was devolved to them in a bid to contribute to effective school placements.

Design

Data were collected throughout five phases to determine CTs' interpretations and experiences of the development of professional learning communities. Interviews and focus groups were the primary data collection methods to provide analysis of the supervisory experiences of CTs. Utilising Lave and Wenger's (1991) theory of situated learning, the data revealed CTs' intended and actual enactment of relationships and the establishment of communities on school placements.

Findings

The data revealed that functioning professional learning communities involving the triadic stakeholders in the school placement process do not exist in an entirety in an Irish context. Instead the development of various forms of learning communities evolved, most prominently 'dyads' (Murphy, 2010, Veal and Rikard, 1998) or 'micro-communities' (Patton et al., 2005). Importantly, there are CTs who avail of opportunities to support PSTs on placement and develop effective and sustainable relationships to benefit their professional learning. Support from teacher education institutions and the Teaching Council can promote and facilitate the development of structured relationships. The CTs state that clear roles and responsibilities need to be disseminated to all members of the school placement process and that these roles need to be recognised and supported. The three main factors that inhibited the development of successful supervisory communities were unprepared PSTs, limited time to carry out the supervisory role and the lack of supervisory professional development. The CTs suggested that the role of a supervisor can be strengthened in a community by the provision of time, effective training and opportunities to interact with other CTs.

The data conveys that functioning learning communities which involve CTs and university tutors (UTs) do not exist. The school placement process lacks an infrastructure which supports change, exchange of knowledge and expertise and few opportunities for stakeholders to work together. However, certain practices undertaken in this research serve as a useful guide and reminder that CTs can gain the skills and knowledge to serve as change agents in the supervisory process. To do this effectively, CTs need to be supported and trained by the teacher education institution.

Conclusion

The findings indicated that the partnership element between the CT and the PST was particularly strong due to the gradual development of an effective working relationship based on respect and trust. It is clear from the findings that within the school placement the role of

the CT is very influential but poorly prepared for and supported by the teacher education institution. If the role of the CT is so critical then it is time for teacher education institutions to recognise the importance and urgency in providing structured CPD opportunities to enable CTs to establish and nurture school placement relationships. Data has identified mechanisms to potentially enhance existing policy and practice, develop the role of the CT and create a systemic shift in university-school partnerships.

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Assessment in Teacher Education: North & South [ATENS][22]

Authors: Dr Tracey Connolly, School of Education, University College Cork and

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Acknowledgement is due to Dr Alicia Curtin, School of Education, University College Cork who was research assistant on the original research project.

Abstract

Central to successful learning and teaching is assessment. Therefore, this small-scale, Irish, cross-border research project investigated the assessment of and satisfaction with school-based placements as experienced by a sample of primary and post-primary student teachers and their tutors. The resultant connections between such professional practices and subsequent planning, teaching and learning are also examined. Reflective of current practices in formative modes of assessment and being particularly relevant to the experience of pre-service teachers, Rogoff's (1995) socio-cultural theory has been chosen to underpin this project. It explores the balance between personal, interpersonal and cultural factors in learning as student teachers journey toward newly-qualified status.

[22] SCoTENS-funded Research Project Completed in February, 2013

Signature Pedagogies in Professional Learning Seminar: Wed 12th June

Signature Pedagogies[23] and Professional Learning Seminar

Western Gateway Building, University College Cork

Wednesday 12th June 2013

AIM:

To support debate on the role of signature pedagogies in support of high-leverage learning across professional fields in the ISS21 Educating for the Professions Cluster

Who should come?

Lecturers, teachers and researchers in various fields of professional practice (e.g. law, nursing, teaching, architecture, medicine, social work, management, counseling…etc.)

FORMAT & SCHEDULE:

1.00-1.45: Registration (free) & Posters

1.45-3.15: Roundtables (90min): Signature pedagogies across professional fields.

3.15-3.45: Coffee/tea & Posters on signature pedagogies across fields.

3.45-5.30: Symposium: *'Lesson Study: A Model for Professional Learning',* Professor Aki Murata, University of California, Berkeley, USA.

[23] **Signature Pedagogies** are characteristic forms of teaching and learning in a given professional field (Shulman, 2005) e.g. Lesson Study in teaching, simulation in medicine and nursing; case-based teaching in law, business and psychology.

What is LESSON STUDY?

LESSON STUDY is an on-going system of collaborative learning focused on 'in vivo' teaching involving co-planning, peer observation and collaborative re-design of lessons. Lesson Study can be thought of as a 'signature pedagogy' in teaching.

POTENTIAL OF LESSON STUDY:

- A high leverage learning practice in teaching
- An exemplary model of a professional learning community
- Proven approach for enhancing organisational learning in professional education.

Contact: Dr Paul Conway or Dr Vanessa Rutherford, School of Education, UCC:

pconway@education.ucc.ie, v.rutherford@ucc.ie All welcome. Registration: (free)



Seminar

Signature Pedagogies[24] and Professional Learning: Fostering Cross-Professional Dialogues

ISS21 Educating for the Professions Cluster

The purpose of this afternoon seminar is to examine powerful learning models and moments in professional education across a range of professions (e.g. law, architecture, planning, teaching, social work, nursing, occupational therapy, medicine, management, counselling, early childhood education…etc.) by bringing together university and school-based professional educators from a range of professions. Powerful learning models encompass a range of practices across professions, now widely perceived to be 'high leverage learning practices', such as role play, problem-based learning, simulation-based learning, rounds, case-based learning and lesson study. The seminar will involve a round table format, involving the representation and discussion of powerful learning models and moments across professions, and a public lecture and panel discussion in which Japanese Lesson Study, now popular in many countries worldwide, will be presented as a powerful professional learning model in that its focus on professional collaborative dialogue via sustained structured and inquiry-oriented conversations can open up ways of re-framing education at undergraduate and post-graduate levels for the next generation of professionals. Among the questions that might be addressed are:

[24] "The psychoanalyst Erik Erikson once observed that if you wish to understand a culture, study its nurseries. There is a similar principle for the understanding of professions: if you wish to under stand why professions develop as they do, study their nurseries, in this case, their forms of professional preparation. When you do, you will generally detect the characteristic forms of teaching and learning that I have come to call signature pedagogies…. And though signature pedagogies operate at all levels of education, I find that professions are more likely than the other academic disciplines to develop distinctively interesting ones. That is because professional schools face a singular challenge: their pedagogies must measure up to the standards not just of the academy, but also of the particular professions". (Shulman, 2005, p. 52)

- On what basis is a particular practice/model presumed to be a powerful learning model (i.e. a high leverage practice) in a given professional education context?
- What kinds of contexts support and/or constrain the enactment of such models in professional education?
- What evidence is useful in understanding the learning that occurs/does not occur in these presumed powerful learning models?
- In what ways do the powerful learning models support and/or constrain engaging with the language, ethics and cultural issues and values that underpin contemporary professional practice?



The Sudan-Ireland-US Helping Babies Breathe (HBB) Initiative, Training of Trainers Workshop Evaluation.

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University College, Cork, Ireland***.

Objectives

The introduction and dissemination of the American Academy of Pediatrics Helping Babies Breathe (HBB). HBB is a simple neonatal resuscitation curriculum targeted at resource-limited circumstances by focusing on the first minute of after delivery including: newborn assessment; temperature control; stimulation; and ventilation assistance as needed for the newborn.

Background

Sudan's Population is 31,894,000 with a current birth rate of 36.12/1000 (2011est. rank 25); Infant mortality 68.07/1000 (2011 est. rank 20); with neonatal mortality rates of 41/1000 of live births. Most (80%) births are not in hospitals but are assisted by the community village midwife. Presently, the 13,400 est. Sudanese midwives registered have various levels of training: Village Midwife program; Midwifery Diploma Schools; and in the University setting as a Nurse Midwife.

Methods

With support from Irish AID and Sudan Federal & Local Ministries of Health, the program was developed for Master Trainer and Facilitator Trainer courses over 4 days for 30 physicians, 12 Sister midwives, and 42 health visitors who will then go out to train village midwives in 17 states and 23 CPD centers. All candidates were evaluated for teaching, skills performance, and knowledge of the HBB program. Candidates were chosen for their prior teaching skills and literacy. All US developed English learning materials, the learners' workbooks and clinical reminders were translated into Arabic.

Signature Pedagogies for HBB

- **Role Play:** Students act out defined role behaviors of a remote village delivery in Sudan to acquire the skills of newborn resuscitation in that context

- **Student Peer Teaching:** Students, in pairs or groups, teach resuscitation skills to fellow students
- **Simulation**: Students engage in activities that simulates the birthing process and requires them to make rapid decision-making when a baby is not breathing
- **Cognitive Apprenticeship**: ***It Happened to Me!*** Students listen to real stories of experienced practitioners highlighting complications of Newborn Resuscitation and ways to avoid and mitigate.
- **Team Work:** Students engage in group activities that emphasize working together to save babies' lives

Conclusions

Candidates of the program for HBB demonstrated high satisfaction, high self-efficacy and gains in knowledge and skills. Mastery of ventilation skills and integration of skills into case management was observed in the classroom setting. To maintain skills, additional practice and continued learning of HBB are required with ongoing evaluation.

Merging two teaching methodologies to develop student nurses' clinical competencies.

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Introduction

Educators are challenged to utilise pedagogical teaching approaches to support students in developing competencies which endorse preparedness for professional practices, such as nursing. The merger of problem based learning (PBL) and simulation are emergent signature pedagogies in Nurse Education. The aim of this poster is to demonstrate the merger of these two active pedagogies for a final-year nursing module (Nursing Management of Challenging Acute Nursing Episodes (CANE).

Methods

A descriptive mixed method approach evaluated the merger of these two pedagogies from students' perspective. Following ethical approval a convenience sample of nursing student (n=30) agreed to participate in this study. Students followed the PBL process [1] and subsequently recorded simulations using a state of the art integrated digital nursing system.

Results

The anonymous electronic student module evaluations provided data on the students' experience of the module. The process of PBL and simulation was rated as very or extremely satisfactory by 60% of students. The level of realism was rated as very or extremely satisfactory by only 36% of students. From the focus group discussions with students, rich commentary highlighted that students felt competent in recognising a deteriorating patient.

Conclusion

The success of this module is owed to the merging of the two active pedagogies. This merger supports them as emergent signature pedagogies for nurse education. Additionally, it informs how we as educators encourage students to think, perform and act within the boundaries of their profession.

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Signature Pedagogies in Early Childhood Education: A Selection of Recent Papers from *An Leanbh Óg, the OMEP Ireland Journal of Early Childhood Studies*

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Abstract

Aistear, the Early Childhood Curriculum Framework (NCCA, 2009), sets out a number of principles in relation to how children learn and develop in the early years (birth to age six. These principles might be considered to be the signature pedagogies for early childhood education and care. These fundamental principles are in three groups: children's lives (their uniqueness as individuals, their rights as citizens, equality and diversity), their connections with others (relationships, the role of parents, family and community, the role of the adult) and a holistic approach to learning, which includes active learning, play, hands-on experiences, communication and language and a learning environment that is conducive to enabling all of these. This holistic philosophy is a central and signature pedagogical approach in high quality early years care and education. Play and playful learning activities give young children opportunities to learn with and from their peers as well as from the adults around them, parents, carers, early years educators: together they participate in a community of practice, as they develop young children's social and emotional skills as well as laying the foundation of literacy, numeracy and creativity. This poster presents abstracts from a selection of papers that have appeared in recent volumes of An Leanbh Óg, the OMEP Ireland Journal of Early Childhood Studies (OMEP: L'Organisation Mondiale pour l'Education Préscolaire- The World Organisation for Pre-school Education: see www.omepireland.ie) The papers presented discuss various aspects of how children's learning can be facilitated in settings such as nurseries, infant classes and the home, and relate these to the principles of Aistear. The six featured papers are:

- What are the Development Enhancing Features of Mathematical Play? (Donna Kotsopoulos and Joanne Lee, Wilfrid Laurier University, Canada)
- Aistear in Action in South Tipperary and North Cork (Dr Mary Daly, National Council for Curriculum and Assessment, Máire Corbett and Lucy Connolly, Early Childhood Ireland)
- Worlds within Worlds- an exploration of children's formation of individual and group identities in a pre-school community of practice (Frances Clerkin, PhD Student, University College Cork)
- Learning to Play through Drama: A study of Irish Preschool and Primary children's experiences (Una McCabe, St Patrick's College, Drumcondra)

- Golden Key: Employing Aspects of a Vygotskian Approach to Education, to Early Years Education in the Northern Ireland Context (Andrea Doherty, PhD Student, Queen's University Belfast)
- Story Sacks: Look what is inside! (Florence Noonan-Lepaon and Anna Ridgway, University College Cork)

The editors of *An Leanbh Óg* are Rosaleen Murphy, Anna Ridgway and Patricia Radley. For more information on OMEP, consult the OMEP Ireland website www.omepireland.ie or email info@omepireland.ie

Conference Notes