CORA Cork Open Research Archive
Cartlann Taighde Oscailte Chorcaí

Title	The information needs of prospective postgraduate students: a data placemats approach
Authors	Patton, Aaron
Publication date	2023
Original Citation	Patton, A. 2023. The information needs of prospective postgraduate students: a data placemats approach. MRes Thesis, University College Cork.
Type of publication	Masters thesis (Research)
Rights	© 2023, Aaron Patton. - https://creativecommons.org/licenses/by/4.0/
Download date	2026-11-07 12:01:38
Item downloaded from	https://hdl.handle.net/10468/15018



UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Ollscoil na hÉireann, Corcaigh

National University of Ireland, Cork



The information needs of prospective postgraduate students: A data placemats approach.

Thesis presented by

Aaron Patton

114402708

Thesis submitted for the degree of Masters of Science in Business Information Systems, Cork University Business School,

University College Cork

Head of School/Department: Prof. Frederic Adam

Supervisors: Prof. David Sammon and Dr. Tadhg Nagle

[May 2023]

Table of Contents

Acknowledgements:.....9
Abstract.....10
Chapter 1: Introduction.....11
1.0: Introduction.....11
1.1: Research Objective and Questions.....11
1.2: Research Motivation.....13
1.3: Outline of the Research Plan.....14
1.4: Reflecting on Research Motivation.....16
Chapter 2: Literature Review.....17
2.0: Introduction.....17
2.1: Sectoral Report.....18
2.1.1: Current Trends of Third Level Education.....18
2.1.2: The Justification for Improving Recruitment & Retention.....20
2.2: Academic Research.....23
2.2.1: Institution Name Recognition:.....27
2.2.2: Cost:.....27
2.2.3: Faculty Reputation:.....28
2.2.4: Geography:.....28
2.2.5: Cost:.....30
2.2.6: Career Prospects / Employment Rates:.....30
2.2.7: Quality of Qualification:.....31
2.2.8: Reputation of Programme:.....31
2.2.9: Prestige.....32
2.2.10: Faculty:.....33
2.2.11: Institution:.....33
2.2.12: Programme:.....33
2.2.13: Institutional Trust:.....36
2.3: Trade Players.....37
2.3.1: Increasing Institution or Programme Visibility:.....38
2.3.2: Process Outsourcing:.....38
2.3.3: Branding:.....38
2.3.4: Lead Generation:.....39
2.3.5: Trade Players and Their Role in Recruitment.....39

2.3.6: Effectiveness of Trade Player Assistance....41
2.4: Conclusion....41
Chapter 3: Research Methodology....43
3.0: Introduction....43
3.1: Research Objective & Question....43
3.1.1: Objective: 43
3.1.2: Research Question 1:....44
3.1.3: Research Question 2:....44
3.1.4: Research Question 3:....45
3.2: Research Design....45
3.2.1: Design Considerations....46
3.2.2: Protocol....49
3.2.3.: Case Context....50
3.3: Data Collection....53
3.3.1: Interviews 53
3.3.2: Semi-Structured Interviews....54
3.3.3: Interview Groups....55
3.3.4: Thematic Analysis....57
3.3.5: Data Placemat Experiment 58
3.4: Data Analysis 71
3.5: Gaps in Research & Potential Continued Efforts....74
3.6: Summary 76
Chapter 4: Data Gathering & Analysis 77
4.0: Introduction....77
4.1: Placemat Analysis 78
4.1.1: Class Stats....78
4.1.2: Course Info 84
4.1.3: Employment Rates....90
4.1.4: Roles....96
4.1.5: Testimonies....102
4.1.6: Course Intake....108
4.1.7: Achievements 113
4.1.8: Faculty Placemat 118
4.1.9: Module Roadmap 123
Chapter 5: Conclusions....129

5.0: Introduction 129
5.1: Contributions of this Research 130
5.1.1: Contributions 130
5.2: Limitations 140
5.2.1: Sample Size 140
5.2.2: Bias of the Researcher 140
5.2.3: Diversity of Data Pools 141
5.3: Conclusions 142
References 143
7.0: Appendix 148
7.1: Appendix A – Proof of Ethical Approval 148
7.1.1: Confirmation of Ethical Approval for research 148
7.2: Appendix B – List of Interviews by Group 149
7.2.1: List of Final Year Undergraduate Student Interviews. 149
7.2.2: List of Faculty Member Interviews. 149
7.2.3: List of Postgraduate Student Interviews. 150

List of Tables

Table 1: Student Numbers 19
Table 2: PG Numbers / Total 19
Table 3: Irish University Funding 2008-2021 22
Table 4: Most commonly occurring university selection criteria 26
Table 5: Most commonly occurring course selection criteria 29
Table 6: UCC Student numbers 51
Table 7:Percentage of UCC Student Population in PG Studies 51
Table 8: CUBS Student Numbers 2021 51
Table 9: Criteria Link to Data Placemat 70
Table 10: Interview Times across 3 groups 72
Table 11: Class Stats - Findings 83
Table 12: Course Info - Findings 89
Table 13: Employment Rates - Findings 95
Table 14: Roles - Findings 101
Table 15: Testimonies - Findings 107
Table 16: Grades - Findings 112
Table 17: Achievements - Findings 117
Table 18: Faculty - Findings 122
Table 19: Module Breakdown - Findings 127
Table 20: Influence & Usefulness Scorings 128
Table 21: Findings of Research Question 1 131
Table 22: Findings of Research Question 2 134
Table 23: Findings of Research Question 3 136
Table 24: CUBS Information Matrix 139

Table of Figures

Figure 1: Data Placemats Methodology....58
Figure 2: Class Stats Placemat....61
Figure 3: Course Info Placemat....62
Figure 4:Employment Rate Placemat....63
Figure 5: Job Roles Placemat....64
Figure 6: Student Testimonies Placemat....65
Figure 7: Grade Distribution Placemat....66
Figure 8: Achiements Placemat....67
Figure 9: Faculty Placemat....68
Figure 10: Roadmap Placemat....69
Figure 11: Class Stats Placemat....78
Figure 12: Class Stats - Overall Picture....79
Figure 13: Class Stats - Undergraduate Input....80
Figure 14: Class Stats - Postgraduate Input....81
Figure 15: Class Stats - Faculty Input....82
Figure 16: Course Info Placemat....84
Figure 17: Course Info - Overall Picture....85
Figure 18: Course Info - Undergraduate Student Perspective....86
Figure 19: Course Info – Postgraduate Student Perspective....87
Figure 20: Course Info - Faculty Perspective....88
Figure 21: Employment Rates Placemat....90
Figure 22: Employment Rates - Undergraduate Perspective....92
Figure 23: Employment Rates - Postgraduate Perspective....93
Figure 24: Employment Rates - Faculty Perspective....94
Figure 25: Roles Placemat....96
Figure 26: Roles - Overall Picture....97
Figure 27: Roles - Undergraduate Perspective....98
Figure 28: Roles - Postgraduate Perspective....99
Figure 29: Roles - Faculty Perspective....100
Figure 30: Testimonies Placemat....102
Figure 31: Testimonies - Undergraduate Perspective....103
Figure 32: Testimonies - Postgraduate Perspective....104
Figure 33: Testimonies - Faculty Perspective....105
Figure 34: Grades Placemat....108
Figure 35: Grades - Overall Picture....109
Figure 36: Grades - Undergraduate Perspective....109
Figure 37: Grades - Postgraduate Perspective....110
Figure 38: Grades - Faculty Perspective....111
Figure 39: Achievements Placemat....113
Figure 40: Achievements - Undergraduate Perspective....114
Figure 41: Achievements - Postgraduate Perspective....115
Figure 42: Achievements - Faculty Perspective....116
Figure 43: Faculty Placemat....118
Figure 44: Faculty - Undergraduate Perspective....119
Figure 45: Faculty - Postgraduate Perspective....120

Figure 46: Faculty - Faculty Perspective 120
Figure 47: Module Breakdown Placemat 123
Figure 48: Module Breakdown - Undergraduate Perspective.....124
Figure 49: Module Breakdown - Postgraduate Perspective.....125
Figure 50: Module Breakdown - Faculty Perspective 126

The Author hereby declares that, except where duly acknowledged, this thesis is entirely his own work and has not been submitted for any degree in the National University of Ireland, or any other University.

Acknowledgements:

I would like to express my gratitude to Prof. David Sammon, for his exceptional guidance, unwavering enthusiasm, and immense patience throughout the entire process of completing this research. I am also grateful for Dr. Tadhg Nagle for his support of my research.

I would also like to extend my appreciation to the faculty members of Cork University Business School for their contributions to my academic journey. Their commitment to excellence and their willingness to share their knowledge have greatly enriched my research experience. Their insightful discussions and constructive critiques were invaluable.

Furthermore, I am profoundly grateful to my family and friends for their unwavering support and encouragement throughout this endeavour.

Finally, I would like to express my gratitude to all the individuals who participated in my research study. Their willingness to share their experiences and insights has been instrumental in shaping the outcomes of this research.

Abstract

This is an exploratory study into the information needs of final year students when considering a postgraduate offering. There is little academic evidence on such information needs in the Higher Education Institution (HEI) context, yet the challenges that HEIs face to design effective data-driven recruitment and marketing strategies, and the variability in information currently provided to prospective postgraduate students presents a real opportunity for further investigation. For the purposes of this research, we are focusing on final year business school students only (Cork University Business School) and their interest in postgraduate programmes within the business school and beyond. This allows the research to focus on the information needs for recruitment but also retention. Hearing the final year student voice in this research but also comparing it to the HEI recruitment personnel voice will highlight the alignment of the respective positions on information needs. It is expected that this research will lend itself to the prescription of design guidelines for information needs. These design guidelines would be of practical value to HEIs.

Chapter 1: Introduction

1.0: Introduction

This study seeks to understand the information needs of prospective postgraduate students when considering enrolment in postgraduate programmes, with the assumption that those information needs are currently not being met to the degree that they could be, which could be impacting the overall enrolment rates within higher educational institutions. This research seeks to benefit these institutions by increasing their ability to recruit and retain postgraduate students.

1.1: Research Objective and Questions

The research objective of this study is:

Research Objective:

> "*Investigate the information needs of prospective postgraduate students in an effort to better understand how to increase recruitment and retention of undergraduate students into a postgraduate offering.*"

This is an exploratory study into the information needs of final year students when considering a postgraduate offering. The primary reason behind this objective is that there is little academic evidence on such information needs in the Higher Education Institution (HEI) context and what little there is, is mainly institution centric - yet the challenges that HEIs face to design effective data-driven recruitment and marketing strategies, and the variability in information currently provided to prospective postgraduate students presents a real opportunity for further investigation. For the purposes of this research a focus will be put on final year business school students only (Cork University Business School) and their interest in postgraduate programmes within the business school and beyond. This allows the research to focus on the information needs for recruitment of prospective postgraduate students, and the retention of undergraduate students into postgraduate education also. Hearing the final year student voice in this research but also comparing it to the HEI recruitment personnel (from a Programme Director to a Director of Recruitment) voice will highlight the alignment of the respective positions on information needs and whether those information needs are being met or not. There is a tertiary

aim within this research objective: that the research might lend itself to the design guidelines for postgraduate recruitment materials, specifically around the information needs that are contained within them. These guidelines would be of practical value to HEIs.

With this objective and the reasons behind it in mind, the research questions formulated to best arrive at this objective are as follows:

Research Question 1:

> *What are the most important information needs of prospective postgraduate students?*

This question will aim to identify the primary information needs of prospective postgraduate students when considering enrolment within a programme or higher educational institution. This question will be answered through the interviewing of both prospective and current postgraduate students and will form the foundation for being able to answer the other research questions included in this paper, and therefore achieve the overall objective of the research being conducted. The most important information needs of prospective postgraduate students will be gauged by analysing the collected qualitative and quantitative data gathered throughout the interviewing process in section 3.

Research Question 2:

> *What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?*

This research question will focus on the differences between the information provided within leaflets, information pages on HEI websites and other advertising material utilised by institutions to promote their programmes and institutions themselves, compared to the information needs of prospective postgraduate students that will be identified through addressing the objective within research question 1. The primary purpose of this research

question is to find the disparity between the perceived and actual value in different information presented by institutions firstly to present the disconnect between the thinking of institutions and students in their perception of the importance of different aspects of education and also so as to inform the potential design guidelines as is mentioned in research question 3.

Research Question 3:

> *What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?*

The design guidelines for information needs will be informed through literature as well as data gathered throughout the research. This question aims to offer potential solutions should there be a disparity between the information needs of prospective students, discovered through research question 1 and the actual available information as will be discovered through research question 2. This research question will seek to provide preliminary solutions to the issues that may be discovered throughout the research, often informed through student input gathered in the process of answering research question 1. The use of data placemats will be paramount in the gathering of the required data to answer the questions outlined above. Data placemats will be the primary visual tools used throughout the data gathering process.

1.2: Research Motivation

The collective purpose of the research questions above is to understand the information needs of prospective postgraduate students, as well as the potential gaps that currently exist within advertising materials of HEIs and begin to outline potential solutions for these gaps that may exist within the same.

This research will provide a student centric view regarding the importance of specific information points that may or may not be provided across a range of materials utilised by numerous HEIs, which may assist said HEIs in their efforts of improving their recruiting of prospective postgraduate students, as well as their retention of undergraduate students into postgraduate students within the same institution. The research will be informed by available

literature as well as student and faculty testimonials and opinions gathered throughout the data gathering portion of this study.

The research being conducted has been motivated by the personal experience of the researcher, primarily by their experience in investigating postgraduate offerings during their own decision-making process of whether to enrol in postgraduate education and in regard to what offerings to apply for when the decision to apply for a postgraduate degree was final. During this investigative period, the researcher found that the information that was included on the information pages online - across the majority of postgraduate offerings spanning numerous institutions - was insufficient for the researcher to feel like they were making a fully informed decision. This lack of consistently available information across several institutions and also across numerous offerings within the same institutions led to the investigation by the researcher into the most commonly occurring points of information that are presented and used by institutions to inform prospective students and also speculate on other information that would prove useful.

Throughout the process of investigating the most commonly used information points in postgraduate offerings, an approach was taken whereby the researcher chose 7 of the top 10 business schools internationally – as ranked by independent rankings - as well as 7 business schools in Ireland to compare and contrast the information used across these institutions for programmes of the same names or similar names. Through this process, it was found that there was a widely varying level of information displayed within the different information pages across the institutions, but also that there was a clear inconsistency in the types of information that was used.

1.3: Outline of the Research Plan

The plan to be followed throughout the research being conducted is as follows;

Chapter Two will focus on investigating several areas relevant to the research being conducted, through literature and other available sources of information. This chapter will give an idea of the current landscape of higher education, focusing on postgraduate education – as well as the speculated information needs of prospective postgraduate students according to the academic literature available.

Chapter Three will contain and present the research strategy adopted by the researcher to answer the research objectives outlined above, throughout the study. This chapter contains the approach taken to the gathering and analysis of data as well as context behind the research focus and the chosen target areas for data gathering. It will outline the concept of data placemats, and how they will be used throughout the data gathering phase of the research.

Chapter Four builds upon the findings generated in Chapter Two, a research objective as well as three research questions are formulated in this chapter. Within this section, the findings and interpretations of the data gathered will be presented. The data presented will be gathered through the individual interviewing of numerous final year undergraduate and postgraduate students as well as several faculty members from the institution where this research is being conducted. This chapter also contains the primary tool used throughout the data gathering, the data placemats which contain information points for the interviewees to observe and speculate on the importance of said information to them. The data presentation will be presented on a placemat-by-placemat basis, mirroring the structure of the conducted interviews.

Chapter Five concludes the study with the overall findings, theories and potential value discussed throughout. This is followed by a discussion on the implications of the research within the educational sector. This chapter ends with the limitations of the study and recommendations for further potential research.

1.4: Reflecting on Research Motivation

The motivation for the research conducted was initially based upon the personal experience of the researcher when considering the prospect of enrolling within postgraduate education. During this exploratory phase, the researcher found that the information provided within the advertising material used for various programmes was generally similar, with very little variation in the information provided. On top of this, the information did not prove compelling to the researcher as a means of motivating them to commit to enrolling within any specific programme. This general feeling of indifference to each programme led to contemplation of what information the researcher would like to see, and then a question of if these information needs would match up with a larger population of prospective postgraduate students. It was from this initial question that the objective of investigating the information needs of prospective postgraduate students to understand how to engage them and thus improve the recruitment efforts of HEIs was created, and throughout the research this objective has been achieved through answering the three primary research questions. These questions are answered through the reviewing of existing literature as well as the analysis of data collected by the researcher to; understand the most important information needs of prospective postgraduate students, find the similarities and differences in perceived information needs and actual information needs of prospective postgraduate students, and understand the information needs of prospective postgraduate students to a degree that allowed the researcher to draft design guidelines for HEIs to use in the effort of maximising their recruitment efforts. The utilisation of data placemats was pivotal to the research conducted and allowed for in-depth and nuanced conversation with every interviewee through their use as a visual aid and tool to foster conversation surrounding the information presented in a more meaningful way than what an alternative of purely conversational questions could have achieved.

Chapter 2: Literature Review.

2.0: Introduction

This chapter focuses on investigating several primary areas relevant to the research being conducted. The areas that will be investigated throughout the literature review are as follows: (i) the current state of higher education, mainly within Ireland, (ii) the academic research conducted in the general area of student recruitment and retention (within the higher education setting and with a focus on postgraduate students), and (iii) the impact and role that external trade players have within HEIs (Higher Education Institutions) and particularly their impact on student recruitment into these HEIs. This chapter concludes with a brief summary of what is discussed throughout, with the assertion that the information needs of prospective postgraduate students is a topic that is currently lacking in research focus based on the limited amount of literature investigating the topic.

2.1: Sectoral Report

The first topic to be explored throughout this chapter is the current trends within education, specifically those relating to postgraduate enrolment. Gauging the trend of total enrolments into third level education within the Irish education system will firstly allow for a broad view of the perceived societal importance of continued education post-secondary level. The identification of the trends within the enrolments can then be used in conjunction with the trends of postgraduate enrolments within the Irish education system to get a better view on the "market share" of postgraduate education. As well as the current trends within graduate education, this section will also be touch upon the potential reasons for HEIs to focus on improving their student recruitment and retention rates. These two areas will then be used together to discern the importance of increased student recruitment and retention rates for postgraduate students within the highly competitive industry of higher education.

2.1.1: Current Trends of Third Level Education

There has been a noticeable increase in the importance of third level education over the last 2 decades within Ireland, which is reflected in the number of individuals enrolled in third level education in the country since 2000. There has been an increase of nearly 100,000 total concurrently enrolled students in higher education between 2000 and 2020, an increase of 31% over the same time. This jump in students would indicate that there has been an increase in the societal value placed on third level education in Ireland. Even as far back as the 80's there has been a noted expectation, rather an aspiration, of an individual's completion of third level education (Scott, 1984).

However, this increased overall rate of third level education among populations all over the world has been cited as an issue within the education industry itself. Many authors state that the value of degrees overall is lessening due to the ever-increasing popularity of third level degrees at both undergraduate and postgraduate levels (Zhang L. , 2005; Brint, 2002; Ilchman & Dhar, 1971). The importance and direct value of a postgraduate education is increasingly more apparent, given the ever-increasing rate of third level graduates, a bachelor's degree is often inadequate for many occupations (Zhang L. , 2005). This sort of educational inflation has

been referenced as one of the primary reasons why the expected standard of academic qualification across numerous industries is being set at a masters or doctorate level (Zhang L., 2005; Ilchman & Dhar, 1971).

Below are tables showing the numbers of students enrolled within third level education in Ireland.

Table 1: Student Numbers

Year	Full-time	Part-time	Total students
2000	115,696	31,469	147,165
2010	160,972	32,215	193,187
2020	196,005	49,658	245,663

Table 2: PG Numbers / Total

Year	Total 3rd Level Students	Total PG Students	% of Total As PG
2000	147,165	22,316	15.16%
2010	193,187	34,740	17.98%
2020	245,663	52,513	21.37%

(Higher Education Authority Ireland, 2006, 2012; National Center for Educational Statistics, 2021)

The importance of postgraduate education cited within literature does seem to appear within the trends of third level education in Ireland. More recently within Ireland there has been an increase of 14.7% between 2019/2020 to 2020/2021 for enrolled postgraduate students. This is a significant increase from the year prior, where there was an 8.1% increase between 2018/2019 to 2019/2020. (Higher Education Authority Ireland, 2021) This increasing number of postgraduate enrolments is assumed to continue to rise over the next 10 years, as the projected number of total third level students is set to continue to rise by approximately 12% by 2030 (Irish Department of Education, 2018) which will inevitably lead to a higher rate of postgraduate enrolments also, given the trends of the last 20 years and the ever increasing importance of postgraduate qualifications in the acquisition of desired careers within

individuals target areas (Maringe, 2006; Jepsen & Neumann, 2010; Chapman, 1986; Hayes, 1989; Newell et al., 1996; Soutar & Turner, 2002; Hemsley-Brown, 2006; Gray, 2003; Jiménez & Salas-Velasco, 2000; Moogan et. al., 2001; Reimer et. al., 2008). The trend of increasing popularity of postgraduate education isn't just local to Ireland, however – Postgraduate enrolments in the United States have risen by 8% since 2010 while undergraduate enrolments have dropped 7% from the same time (National Center for Educational Statistics, 2021), this increased level of continuation of education past the undergraduate level might indicate the trend of the ever increasing importance of a postgraduate degree in the job market for individuals. The importance of postgraduate degrees is reflected in the labour market. As touched upon earlier, the lessening value of undergraduate degrees means that new entrants into the labour market who do not have a postgraduate education are at an immediate disadvantage to their competitors who do. This disadvantage of individuals who only have undergraduate degrees is due to the preconception that students with a master's or doctorate education have higher perceived level of skill than undergraduate students and therefore enjoy better labour market prospects, according to human capital theory (Barone & Ortiz, 2011) – and, as touched upon by Zhang 2005, this ever-increasing rate of postgraduate education will sustain the expectation for a postgraduate education for "more valuable" graduates through the idea of educational inflation and the perceived necessity of a postgraduate education. This sentiment is reinforced by Reimer et. al. 2008, who stated that in modern societies, education is the most important resource determining allocation processes to different labour market positions (Reimer et. al., 2008), and those who have the highest levels of education are allocated the highest labour market positions. There is currently a focus on branding in universities due to the increasing costs of education in the world. This branding gives a higher level of perceived value to education. Employers ultimately search for potential employees with the strongest educational background, which further increases the justification for postgraduate education (Tas & Ergin, 2012).

2.1.2: The Justification for Improving Recruitment & Retention

The trends of education as addressed in the previous section would indicate that HEIs are in a favourable position in current times given the ever increasing rates of third level students and the perceived importance of continued education past an undergraduate level. However, there has been a significant increase in competition for providing these postgraduate offerings. The access to more institutions for prospective students through the internationalisation of

education and globalisation in general has lead to a more competetive market (Rodríguez-Gómez, Feixas, Gairín, & Muñoz, 2015; Diaz-Mendez and Gummesson 2012; Plewa and Quester 2008). The increased competition in conjunction with the consistent reduction in funding by the state towards Irish HEIs leaves these insitutions in an uncertain position regarding the maintenance or increasing of their educational budgets, given that the core grant given by the state to HEIs per student has dropped nearly 45% within the last 12 years (Irish Universities Association, 2018; Higher Education Authority Ireland, 2021).

With the ever-increasing rate of postgraduate education, and the internationalisation of the same – it is more important than ever for HEIs to try and attain as large of a market share as possible for postgraduate educational offerings. This is even more true in countries where the levels of funding given by the state to HEIs per enrolled student has been reduced in recent years, such as Ireland – where the funding given by the state towards HEIs per student has dropped consistently over the last 20 years, in contrast to the increasing demand for education. This decreased funding from the state towards HEIs per student leaves a deficit that HEIs must balance through an increase in their rate of "sales" of educational offerings. Postgraduate education being the most expensive per annum per student within Irish HEIs – it is therefore the most obvious area for an institution to focus on in order to increase their incoming funds. The question of income for Irish HEIs is one of the primary reasons that this particular area of research was chosen, to increase the recruitment and retention rates of postgraduate students within HEIs would bring the greatest benefit to the financial circumstances of institutions in comparison to other student focused areas.

Within Irish HEIs the student contribution per annum for EU undergraduates is capped at €3,000 (Higher Education Authority Ireland, 2021) with the balance of the fees being paid by the state. The total of these fees is often less than €8,000. However – postgraduate fees within the same institutions and the same EU group for full time courses are often more than €10,000 per year.

Table 3: Irish University Funding 2008-2021

Year	Funding Per Student	% Decrease from 2008
2008	9,000	-
2015	7,000	22%
2021	5,000	43%

(Irish Universities Association, 2018)

There has been a concerted effort from educational institutions in the last decade in reconsidering and reinventing their relationships with stakeholders in order to increase or maintain their competitiveness (Plewa & Quester, 2008). These efforts are driven by the substantial cuts in public spending and particularly in education, as well as the ever increasing competition caused by the globalisation of education leading to a larger array of institutions being available to students (Diaz-Mendez & Gummesson, 2012) as well as an awareness and careful consideration from students of the rankings and reputation of institutions partially driven by the increase in consumerist considerations of prospective students in their selection of institutions and courses (F. Angulo, 2010; Veloutsou et. al, 2004; Harvey, 1996; Rosenberg, 2008).

There is a significant impact on numerous different aspects of an institution's success based on an institution's reputation. Numerous papers claim that an institutions reputation can impact its' profitability, trustworthiness and the quality of students that attempt to enrol within said institution (Selnes, 1998; Sung & Yang, 2008; Alan, Kabadayi, & Cavdar, 2018). The impact of these factors can then create a domino effect and influence an institution's draw for industry partners, future prospective students and also employees consisting of both teaching and general staff. (Alan, Kabadayi, and Cavdar, 2018). Therefore, the reputation of an institution can be considered to be a driving factor in its success and the guarantee in a consistent institutional budget through keeping a stable rate of enrolments or indeed, growing the rate of postgraduate enrolments within the ever-increasingly competitive and saturated industry of higher education, which is caused in part through the internationalisation of education and alternative educational options (Rodríguez-Gómez, Feixas, Gairín, & Muñoz, 2015). Results from successful university branding campaigns include increased admission applications and better student qualifications, increased retention rates for professors and students, increased

faculty recruitment and increased graduation rates based on the perception of prestigious universities “accepting the best” (Lockwood & Hadd, 2008)

2.2: Academic Research

This section will be discussing the current academic research conducted on the topics of student recruitment and retention within HEIs. This academic research spans over many years – which is beneficial to track the evolution of thought within this space, but also is used because of the lack of currently available literature dealing with the topic of postgraduate recruitment in a more recent setting. For this reason – many of the sources of information that will be discussed within this section are dealing with undergraduate recruitment, however, the information contained within these sources may still prove useful in the creation of the instruments used and also in the designation of the research methodology further along into this study.

Numerous studies have sought to explain why students select a particular HEI (Bowers and Pugh 1973; Caugh et al, 1978) but given the age of these studies, and the constantly evolving needs and wants of individuals over time, these factors might differ to those held by individuals in current times.

One example of the differences in the decision-making process of students between the 70’s and now is that studying abroad is far more accessible and commonplace now than it was compared to as little as 20 years ago. In Ireland in 2017 the number of full-time students in third level education whose domiciliary origin was not Ireland accounted for 13.3% of the total third level student population, nearly double compared to the same statistic in 2000 – where this student group only accounted for 7.4% of the total third level student population in Ireland. (Central Statistics Office, 2021)

Though the outcome of higher education has remained the same over time, the individual motivations for attaining said higher education has inevitably changed within that same period. Therefore – in order to achieve a better understanding for the continuation of this research – a review of current trends within the student population of HEIs and their motivations behind continuing their education must be completed.

Firstly, in addressing the research of the recruitment and retention of postgraduate students, a question of “why” must be answered. Why do undergraduate students choose to enrol into postgraduate education in the first place? Several factors influence this decision according to

numerous studies. The most prominent and commonly occurring decision-making factors within the literature include maximising individual employability & career prospects (Maringe, 2006; Jepsen & Neumann, 2010; Chapman, 1986; Hayes, 1989; Newell et al., 1996; Soutar and Turner, 2002; Hemsley-Brown, 2006; Gray, 2003) and the continuation of education within a subject area that a student has a particular interest in (Hesketh & Knight, 1999; Harris, 1996; Maringe, 2006).

The improved employability and career progressions that is expected through the completion of a postgraduate programme is attributed to a perceived competitive advantage of an individual who has attained a postgraduate degree compared to someone who has a bachelor's degree within the same field. The increased emphasis on education throughout the world has led to an educational inflation which has also increased the enrolment rates of postgraduate students. (Zhang L. , 2005). There has been an increased expectation of postgraduate education for a competitive advantage within the workforce. This expectation has led to a more apparent rational mentality approach to education from the perspective of a student, shopping around for an education that will provide them the greatest advantage in their professional careers, rather than seeking out an education in an area of interest (Maringe, 2006). This rationalised approach to postgraduate education is down to a more prevalent "consumerist" behaviour according to Maringe. This consumerist behaviour is a line of thought whereby prospective students are performing a cost/benefit analysis for any given institution and programme that they are considering. This consumerist behaviour relies on a combination of hard data such as employment rates, whilst also taking into account less tangible information such as the reputation and prestige of a given institution, programme or staff involved within a specific programme . Those who pursue a postgraduate education in a subject area purely that they have an interest in with lesser consideration for employability are more inclined to think emotionally (F. Angulo, 2010) and are generally more interested in an academic career within their area of study (Maringe, 2006).

The consumerist thought process of prospective students has lead to many HEIs treating students as "customers" rather than students. Veloutsou et. al, 2004 question the "ethicality" of getting into the train of thought of approaching students as customers, however – others claim that if an institution is able to understand the consumer behavioural patterns of these student customers that it will be massively beneficial in the institutions effort of attracting and ultimately recruiting a greater student body (Veloutsou, Lewis, & Paton, 2004). This sentiment has been repeated throughout a number of papers over numerous decades with Harvey, 1996

claiming that this changing of mindset to approaching prospective students as potential customers can benefit HEIs and focus the information put forward by an institution to attract these rationally thinking consumers/students. (Harvey, 1996). The more traditional approach to student recruitment within HEIs is with the mindset of individual enlightenment and personal development through the medium of education, and though this approach might still be effective towards a portion of the prospective student body, the majority of students aspire to well paid jobs and successful careers within their target educational area and therefore will weight up the beneficial factors within specific courses or institutions in order to have the best chance of attaining their desired outcomes(Jiménez & Salas-Velasco, 2000; Moogan et. al., 2001)

Within the literature that deals with this train of consumerist or rationally thinking decision making processes within prospective students, several key decision-making criteria are identified. These decision-making criteria differ between university selection and programme selection within this group, as identified within numerous studies. The most commonly reoccurring decision making criteria for prospective students for choice of university include: wishing to enrol within a university that has a recognisable name, or as elite of an institution as possible based on personal subjective perception (Rosenberg, 2008), the cost of studying at a given HEI – this includes all reasonable expenses and is not exclusive of other costs outside of tuition fees, the geographical factors of an institute – ease of access and current proximity to an individual's home etc. as well as the academic reputation of faculty within an institution. The factors that popped up more commonly over the entirety of the literature review that pertained to an individual's choice of programme were somewhat relating to the factors already discussed for an individual's choice of institution. These factors included: cost, career prospects / employment rates, quality of education / qualification and reputation of programme. The cost that a prospective student considers as being acceptable for an education seems to be intrinsically tied to the perceived "value" of a programme. This perceived value is tied to several other factors such as the career prospects that a programme offers, and the employment rates achieved by graduates of a given programme. The quality of a qualification is also tied to the career prospects and employment rates.

The most commonly occurring university selection criteria identified consisted of:

Table 4: Most commonly occurring university selection criteria.

Factor	Sources
Institution Name Recognition	(Hayes, 1989) (G. N. Soutar, 2002) (Hesketh & Knight, 1999) (Kallio, 1995) (Conard, 2000) (Moogan, Baron, & Bainbridge, 2001) (Mazzarol & Soutar, 2002) (Vaughn, 1978) (Lei & Chuang, 2010) (Joseph, 2012) (Thompson, 1967) (Fernandez, 2010) (Rosenberg, 2008)
Cost	(N. Ketel, 2016) (Sá, 2014) (Rosado & David, 2006) (Chapman & Pyvis, 2006) (Coccari & Javalgi, 1995) (Rosenberg, 2008) (Vaughn, 1978) (Curtis, 2011) (Lei & Chuang, 2010)
Faculty Reputation	(Malaney, 1985) (Mazzarol & Soutar, 2002) (Joseph, 2012) (Coccari & Javalgi, 1995) (Curtis, 2011) (Lei & Chuang, 2010) (Maringe, 2006)
Geography	(Moogan et. al., 2001) (Vaughn et. al., 1978) (Moogan, Baron, & Bainbridge, 2001)

2.2.1: Institution Name Recognition:

Name recognition has been referenced in one form or another in numerous academic papers. It is the immediate recognisability of an institution through name alone because of it's extensive reputation. For example; Harvard, MIT and Oxford University are far more recognisable to a broader range of individuals than various local or national HEIs such as IT Tralee, Galway University or any other local third level institutions when presented internationally. Having a widely recognised institution as being the provider of a qualification can - according to available literature - prove beneficial for an individual who has completed some level of education in one to maximise their chances of securing desirable employment (G. N. Soutar, 2002). A recognisable institution name often has a positive reputation attached to it, and gives a more favourable initial impression for employers when looking for new employees, through the perceived higher quality of the education being given within these recognised institutions because of an "elite" reputation (Rosenberg, 2008). The competitive advantage that having a qualification completed in a recognisable institution attached to an individual's resume can prove to be a highly influential factor that is considered by prospective students when deciding between various institutions.

2.2.2: Cost:

Cost within the institutional setting encompasses several different factors such as the cost of relocation to attend a specific institution and the cost of living over the expected educational term, as well as any other factors in cost that don't directly relate to the specific tuition fees that are required to be paid by any student. The cost of attending a specific institution can often play a significant part in the decision making process of prospective students (Rosenberg, 2008). For some, the cost of relocation to the institutional campus or transport to and from it might prove to be too expensive for the benefits that attending said institution might provide in contrast to another which may be more practical for the individual to attend. The costs attached to attending a particular university are often weighed against the perceived competitive advantage that attending said university would provide for the prospective student (Maringe, 2006). This weighing of cost against the potential competitive advantage can be considered to be a consumerist line of thought which, according to numerous sources is one of the main lines of thought that potential students are following when weighing up their options of institutions to attend and also the specific areas of study in which they're going to enrol in to (Veloutsou et. al, 2004).

2.2.3: Faculty Reputation:

The reputation of faculty members has been quoted as being one of the primary factors in establishing the overall reputation or prestige* of an institution (Malaney, 1985; Thompson, 1967). If an institution is seen to have highly qualified & experienced faculty members it can be a substantial selling point of a HEI, as the overall perceived quality of the education being provided by an institution is improved (Lockwood & Hadd, 2008). This improved perception of the quality of educational offerings within an institution can make a great impact within a large prospective student base who are often described as rationally thinking or consumerist in their approach to postgraduate education – whereby the greatest value for money, and the most competitive advantage are the greatest determining factors for their attendance of a postgraduate offering. In a similar vein as the recognisability of an institution based on name alone, the reputation of faculty members is a subjective means for individuals to determine the "superiority" of one insitution over another which they might be considering (Moogan, Baron & Bainbridge, 2001 pp. 187)

2.2.4: Geography:

The geography of an institution primarily deals with the location of the institution as a factor in the relocation, travelling distance or practicality of attending it as well as cultural considerations of prospective students when making a decision to attend specific institutions. A less cited factor in research dealing with the considerations of prospective HEI students, the geographical factors are less applicable to the line of thought which is predominant in said research – consumerist or rational thought – it deals more in the area of social variables (Moogan, Baron & Bainbridge, 2001).

The most commonly occurring course selection criteria identifies consisted of:

Table 5: Most commonly occurring course selection criteria.

Factor	Sources
Cost	(N. Ketel, 2016) (Sá, 2014) (Rosado & David, 2006) (Chapman & Pyvis, 2006) (Coccari & Javalgi, 1995) (Rosenberg, 2008) (Vaughn, 1978) (Curtis, 2011) (Lei & Chuang, 2010)
Career Prospects / Employment Rates	(Hayes, 1989) (Newell, Titus, & West, 1996) (G. N. Soutar, 2002) (Mazzarol & Soutar, 2002) (Hemsley-Brown & Oplatka, 2006) (Gray, 2003)
Quality of Education / Qualification	(Joseph, 2012) (Malaney, 1985) (Kallio, 1995) (Moogan, Baron, & Bainbridge, 2001) (Rosenberg, 2008) (Chapman & Pyvis, 2006) (Fernandez, 2010) (Zhang T. &., 2007) (Lei & Chuang, 2010)
Reputation of Programme	(Joseph, 2012) (G. N. Soutar, 2002) (Thompson, 1967) (Malaney, 1985) (Hesketh & Knight, 1999) (Conard, 2000) (Mazzarol & Soutar, 2002) (Rosenberg, 2008) (Chapman & Pyvis, 2006) (Fernandez, 2010)

2.2.5: Cost:

The cost of a programme is, in contrast to the factor of the same name in the most common factors occurring within the space of the process of selecting an institution, related to the cost of the specific cost of tuition fees and the price of other items directly involved in the programme. The cost of a programme has been ascribed as being an important factor for prospective students, especially those who are more consumerist in their mindset when approaching education as it, as well as a number of other factors allow the prospective student to form their own idea of the value for money given within a specific programme.

2.2.6: Career Prospects / Employment Rates:

The career prospects and employment opportunities that are presented through qualifications are often cited as being the most valuable and important outcome from continuing education (Maringe, 2006; Jepsen & Neumann, 2010). This factor is often seen as the "why" of a postgraduate programme and is frequently weighed against the costs of pursuing a postgraduate education by prospective students when deciding whether to enrol or not, as well as playing a significant part in the perceived value of acquiring a postgraduate education for a large cohort of potential postgraduate students (F. Angulo, 2010; Tas & Ergin, 2012). This factor is one of the most common ones cited within literature investigating the decision making process of prospective students, especially those that attempt to investigate the rationally thinking or consumerist minded prospective students, as without the prospect of attaining desirable employment off the back of, or with the assistance of attaining a postgraduate education within a specific institution or programme, individuals within the rational or consumerist school of thought would often be heavily dissuaded from pursuing a postgraduate education within that given institution or programme. This factor is often tied into the next which will be discussed; quality of education, as the employability of an individual after completing a postgraduate education is often tied to the quality of the degree with which they have been awarded (Lei & Chuang, 2010).

2.2.7: Quality of Qualification:

The quality of an education is often not an objective factor. It is influenced by numerous other items such as the reputation of a programme or the employment rates of the same. However, the perceived quality of education can often be an important factor for prospective students in their consideration of continuing their education (Joseph, 2012). The perception of an increase in quality in the education to be received is often weighed against the cost in an attempt to find the best value for money – according to Lei & Chuang, 2010, prospective students are inclined to spend more on an education that they perceive to be of better quality and therefore will provide them with as much of an advantage as possible in their desired job market (Lei & Chuang, 2010). Often tied to both institutional and other programme specific factors such as; institution recognisability, faculty reputation and employment rates - the quality of an education can be a highly influential factor in the decision-making process of prospective students when deciding between multiple programmes or even institutions.

2.2.8: Reputation of Programme:

Programme reputation is used quite frequently as an important factor that prospective students take into consideration when deciding between potential routes of postgraduate education (Hesketh & Knight, 1999). A positive reputation attached to a programme can often be advantageous for an individual enrolled within or who has completed it. These advantages often apply to the competitiveness of an individual within their desired job market, as a positive reputation attached to a programme, similar to the recognisability of an institution, can give an immediate advantage in the process of attaining employment within their desired field (Zhang T. &., 2007).

2.2.9: Prestige

Institutions compete for the best students, while applicants compete for the most preferred institutions. But what makes a preferred institution? A recurring factor that appeared prominently across many of the earlier papers researched during this study was the idea of prestige. Prestige is a high-level concept consisting of numerous institutional and reputational factors which appears to have been one of the more popular focuses for HEIs to focus on when improving their marketability and desirability for prospective students. The overall perceived prestige of an institution or programme consisted of numerous factors. However, the most prominent factors which occurred within the academic papers mentioning prestige were; faculty reputation, the perceived quality of education offered within an institute or programme and the inherent recognisability of a programme or institution among others. The notion of prestige was a driving force for many authors, notably Thompson, 1967 and Malaney, 1985, who use prestige as the primary influencing factor for a student's choice of institution of programme.

According to Thompson and Malaney, prestige is a type of reputational draw that is attained through the efficient marketing of a number of influencing factors that improve the external perception of a programme or institution as being a more valuable investment for an individual to attend rather than another of the same. Malaney indicates, through referencing Thompson, 1967, that the fostering of prestigious images is one of the cheapest ways for an institution to acquire recruiting power, specifically recruiting power, stating that through the acquisition of prestige an institution is more likely to passively acquire more and higher value or "outstanding" graduate students through those prospective students seeking out the institution or programme itself, reducing the dependence on marketing of said programme or institution. (Malaney, 1985; Thompson, 1967). Within this concept of prestige, there appears to be three prominent influencing factors on the perceived level of prestige that an institution can claim. These factors are; the reputation and calibre of faculty members, the reputation attached to specific programmes within a HEI, and also the overall reputation of an institution itself. (Coccari and Javalgi, 1995; Moogan et al., 1999; Soutar and Turner, 2002).

2.2.10: Faculty:

The reputation attached to the faculty members of an institution or specific school, or programme is seen to be - according to Malaney, 1985 and Thompson, 1967 - a substantial factor in the overall perceived level of prestige of an institution or a programme within an institution. These prestigious faculty members can create a desirable or "elite" environment for the facilitation of education. However, Malaney claims that these prestigious faculty members are themselves attracted to prestigious institutions, programmes, or monetary gain (Malaney, 1985; Thompson, 1967). Enforcing Malaney's opinion of prestige being dependent on the quality of faculty members, Ruth E. Kallio's 1995 research into factors influencing the college choice decision of graduate students found that the most important and highest weighted factor of a student deciding to matriculate into a HEI was the reputation of faculty members, with institution's academic reputation and quality of students enrolled in a particular program being listed as the other two of the most important factors to prospective students. (Kallio, 1995).

2.2.11: Institution:

As addressed previously within this paper, the reputation of an institution has been – and still is – seen to be a heavily weighted factor in the overall perceived quality of an institution itself or for the degrees that it awards. A prestigious institution is often the most desirable and the first-choice destinations for academics, both students and teaching staff, and is therefore inherently competitive. Creating a desirable institution can attract more valuable staff and students and therefore continue to create a higher perceived level of quality in comparison to other competitor institutions (Hesketh & Knight, 1999).

2.2.12: Programme:

Programme specific prestige is a concept that appears frequently within the academic research dealing with prestige as a prominent determining factor in the enrolment of students within HEIs. According to Hesketh & Knight, 1999, the reputation of a programme can itself supersede the reputation of an institution (Hesketh & Knight, 1999).

Malaney states that the prestige of an institution is a long-term investment that requires some time to mature, often through the investment by the HEI into attracting the best possible faculty members in order to develop the prestige of a programme and the institution itself over time (Malaney, 1985). The sentiments of Malaney and Thompson have appeared more recently through the mentioning of prestige by Joseph, 2012. Joseph claims that the combined perceived prestige of an institution is one of the primary driving factors behind student enrolment within a HEI, stating that a combination of institution & faculty reputation, name recognition and the accreditations of an institution or programme forms the prestige of a HEI and that a positive external perception of these factors drive the selection and application process of most university students. (Joseph, 2012) Hesketh & Knight, 1999 found throughout their research that the decision making of postgraduate students in their choice of enrolling and into what course or institution often hinge on the reputations of the institutions or programmes available, which would reinforce the sentiments of Malaney 1985, Thompson 1967 and Joseph, 2012, in their claims of the importance of prestige within a consumerist cohort of prospective students (Hesketh & Knight, 1999). Although most studies addressed suggest that academic reputation of an institution is an important criterion, Conard, 2000, claims that the primary factor considered by students when considering what comprises academic prestige reveals that the ability to get a good job following graduation and the perceived expertise of the faculty are strongly associated with the academic reputation of an institution and programme (Conard, 2000). Mazzarol & Soutar, 2002, in a similar line of thought, believe that three of the most important factors that a prospective student contemplates before choosing an institution are the combined reputational prestige of the prospective student's area of interest – consisting of the reputation of the Institution, faculty and the programme itself, as well as the recognisability of the institution or programme they are considering enrolling in. Recognisability of qualifications is another important factor that Mazzarol & Soutar state as being a primary point of interest for prospective students (Mazzarol & Soutar, 2002). The findings and observations of Mazzarol & Soutar draws a line between the older academic research into the decision-making process of prospective students and the importance of prestige, with the more modern academic research that deals with more specific criterion that is considered by prospective students. The two examples of this – recognisability of institution/programme and recognisability of qualification – are often tied to the consumerist line of thought of individuals considering enrolling in third level education.

This theme of prestigious universities being more sought after HEI's for matriculation is not exclusive to research from the last millennium, but instead is continually referenced. Rosenberg, 2008, states that applicants are choosing HEIs primarily based on the perceived elitism of said institution weighed against the financial impact of attending the same. Put simply – the decision is reduced to getting the best value for money. However, the perception of the intrinsic value of an institution according to Rosenberg is based on reputation and quality, quality which is often determined by the independent rankings of institutions in comparison to their competitors (Rosenberg, 2008).

Curtis, 2011, repeats a similar message to Rosenberg, stating that prospective students seek out affordability as a primary decision-making factor when considering a HEI to attend to continue their studies to a graduate level, but also lists faculty as an equally important factor for prospective students – especially those who are considering attending the same institution where they have completed their undergraduate for to complete their post-graduate studies (Curtis, 2011). Furthermore, Curtis repeats the idea that institutional reputation or prestige is a primary condition for a student's choice of institution, citing Lei & Chuang, 2010, and their findings that reputation of an institution, it's faculty and also the individual programs of study are pertinent to the decision-making process of students when deciding to attend post-graduate studies (Lei & Chuang, 2010). It's also important to note that Lei & Chuang refer to expense of an institution as another important factor for individuals to consider, mimicking Rosenberg's findings that it's a balance between reputation and cost that creates a desirable HEI to enroll in. Chapman, 1986, claims that when a prospective student is choosing to apply to a university, the importance of the perceived overall academic quality is an unwavering need for said student, and that the most important attributes when assessing this are the quality of faculty and the degree programmes offered (Chapman R. , 1986).

The idea of prestige and its importance to prospective students is one that, it appears, is still applicable today. There is a parallel that can be drawn between the classifying factors of determining prestige within an institution, programme or the faculty of either, to the factors which have appeared the most within the literature reviewed – such as the employability that alumni of specific institutions or degree programmes can expect post-graduation, as well as the quality and pedigree of the academic staff within the same. However, other, more obvious parallels can be drawn between the same two sets. The reputation of an institution and the recognisability of it or a specific programme within it is the most obvious continuation of the importance of these prestigious concepts to prospective students, at least with a consumerist

line of thinking. Perhaps the concept of prestige has been replaced with a more granular look at the factors that determine the desirability of institutions and programmes.

2.2.13: Institutional Trust:

According to Ivy, 2002, students don't consider traditional promotional tools that universities currently utilise as playing a significant role in their choice – such as websites, prospectuses and other written materials distributed by HEIs for the specific purpose of marketing their available programmes. They theorise that the reason behind these more traditional tools being a non-factor for prospective students is that there might be an underlying feeling of mistrust towards these promotional materials (Ivy, 2002). Bennet, 2006 claims a similar line of thinking as Ivy in this regard, and questions whether students find these traditional promotional tools trustworthy and adequate for their own decision-making process – saying that these marketing tools are often not an objective source of information (Bennet, 2006). Some authors claim that the marketing of educational offerings is negative for the overall trust that prospective students have in an institution, given the idea that the prospective students are looked upon as customers, and that this is an inherently negative approach for HEIs to take (Holbrook, 2005; Knapp, 2012) as it might impact the image of institutions, and portray them as being purely interested in monetary gain (Sharrock, 2000).

2.3: Trade Players

The marketing of HEIs isn't a new concept and has been referenced as being an essential part of maintaining and improving the rates at which individuals enrol within the same. The marketing of HEIs is an area that numerous authors have recognised the importance of in the impact that it creates within the area of student recruitment into said institutions (Cubillo et al., 2006; Ivy, 2001; Maringe & Foskett, 2002; Fisk & Allen, 1993; Carlson, 1992; Wonders and Gyuere, 1991; Beneke & Human, 2010). Czinkota et al refers to the need for marketing postgraduate education as far back as 1980 (Czinkota et. al., 1980). However, in the majority of cases, the emphasis of these marketing campaigns utilised by HEIs is in an effort of attracting the most suitable or "best candidates" for programmes. Within the space of higher education, there are numerous organisations which claim to assist HEIs in their pursuit of – in essence – increasing the market share that HEIs can attain through numerous means. These methods for assisting HEIs in their process of onboarding more students consist of; assisting in the onboarding processes of prospective students, increasing institution visibility and also in the general marketing of the institution as a whole or specific programmes within it. The marketing of an organisation is a practice that many would deem an essential part of maintaining a healthy business through the continuation of selling your products or services (Ivy, 2008). This claim is just as true for HEIs as it is for more traditional businesses and organisations, especially within the current climate of higher education where competition is at an all-time high through the increasing presence of non-traditional educational offerings available through online learning and newer institutions. The trade players in question seek to provide a competitive advantage for specific HEIs through numerous avenues, mainly targeting potential students in an attempt to create a positive change in both potential student engagement, and ultimately, increasing the rate of onboarding for those potential students. However, the purpose of addressing these trade players within this review is to get a view into the strategies and specific sales points that these trade players are utilising in their attempt to increase postgraduate student engagement and recruitment for HEIs.

The most common services that the trade players investigated offer to institutions to assist in their recruiting process of postgraduate students consist of increasing visibility, process outsourcing, branding, and lead generation.

2.3.1: Increasing Institution or Programme Visibility:

One of the primary selling points of trade player organisations within the HEI space is their claim that they can increase the footprint or visibility of an institution or specific programmes that an institution wants to promote. The approach to this is varied across the different trade player organisations, however – the end goal is the same. This service of increasing the visibility of an institution or specific programmes is in order to generate interest and passively generate leads.

2.3.2: Process Outsourcing:

A prominent service on offer according to the trade player organisations investigated, is the service of taking over or assisting in the process of onboarding prospective students. This process of onboarding students can span the entire journey of an interested student, all the way from the first engagement with to enrolment and retention of that same student. This service is often associated with improving the customer experience of interested students – as the trade player organisations who offer this service state that they can offer a smoother and more streamlined application process for prospective students, with facilities for quick and efficient communication as well as the expertise in knowing what is required of an interested party before they need to be asked for it in their applications.

2.3.3: Branding:

Branding is an important factor in the presentation of an institution. It can make the difference between a good or a bad first impression for prospective students and is therefore one of the more prominent services on offer from the trade player organisations that target HEIs as their primary customers. The branding services on offer often focuses on creating an appealing image of a specific institution or programme which will best attract the most desirable applicants for said institution and programme.

2.3.4: Lead Generation:

Within the offerings that the trade players offer to HEIs is that of lead generation – this is the practice of creating engagement with potential students that would be suitable for enrolment within the given HEI. Within this, there are numerous options for lead generation such as; the utilisation of recruitment agents, virtual fairs, and the promotion of specific institutions and programmes within a trade player's own website. Recruitment agents are often directly involved with institutions, however, numerous trade player organisations are offering the services of their own agents to represent their customer, the HEI. The role of these agents is to visit other educational institutions as well as fairs in order to promote said institution and engage with potential students in order to try and "sell" the institution to them as a desirable option to continue their education. This practice of getting the initial engagement and establishing a starting relationship with prospective students is lead generation for institutions, whereby they can continue to engage with and potentially recruit said prospective students. Virtual fairs were listed as an engagement tool by the majority of the organisations investigated. These virtual fairs are used as a means for organisations to contact interested individuals about the offerings available within the institutions that they represent. Another popular offering from these trade player organisations was the promotion of institutions and programmes on specifically student focused websites which attempt to display programmes of interest to specific interested parties. The information that is included within these websites is uniform across most of the offerings regardless of the institution or area of study. The promotion of programmes on these websites does appear to be a popular service for lead generation, however, and can also be included under the service of increasing institution visibility.

2.3.5: Trade Players and Their Role in Recruitment

Within the vast range of services on offer from these trade player organisations, there are a limited number which can be directly related to the topic being researched – the information needs of prospective postgraduate students. However, one of the main lines of investigation taken when looking at these trade players and the services that were on offer was the researching of the information that was included on both the internal trade player websites for the presentation of institutions and programmes, as well as the external websites of HEIs that were listed as being customers with testimonials given from the same. Throughout the investigation into searching for the most common information included by these trade player

organisations for institutions and programmes, it was found that the majority of the information points that were included were similar, with very little detail.

Often – the information that was included was limited to the cost, length, area of study and general course outline. This leaves a certain level of uncertainty as to the value of the information included by the trade players researched. According to Angulo, 2010 the literature investigating the enrolment of prospective students into Higher Education Institutions has examined numerous variables that prospective students consider when choosing a university. These variables are split between rational and emotional factors (F. Angulo, 2010). Rational factors in HEI recruitment can be seen as the logical decision-making criteria and information needs that a prospective student would research in different courses & institutions. These consist mainly of career focused and academic factors, such as; Cost & Tuition fees (N. Ketel 2016, D. Rosado, 2006), Career Opportunities (Hemsley-Brown & Oplatka, 2006; Gray, 2003) Institution Reputation and Perceived Quality of Education (Chapman & Pyvis, 2006; Fernandez, 2010). Often these factors are seen as objective criteria, which can be compared to other products or services, whereby the levels of each factor can be evaluated, and the optimal product can then be chosen to give them the best value for money, and as a result the most desirable outcome and greatest advantage (Zhang T. &., 2007) which reinforces Rosenberg's stated importance of attaining an education within as "elite" of an institution as possible whilst weighing that against the monetary investment to attain it. Interest or "love" of a subject of study (Maringe, 2006) is the primary emotionally based decision making factor occurring within the literature, but is accompanied by sociocultural influences and personal identity construction (F. Angulo, 2010). However, nowhere within the information presented by these trade players do any of these information points present themselves, outside of the cost of the programme on offer. The lack of this information could imply that there was a lack of potential student input as to the key information points that would provide value and give a prospective student enough information to make an informed choice as to the institution or programme that they would enrol within, and that perhaps the information points that are given are informed by HEI input on speculated information points that would prove important for prospective students.

2.3.6: Effectiveness of Trade Player Assistance

The presence of trade players in the area of student recruitment is undeniably apparent, however the effectiveness of the same is indeterminate. Throughout the investigation into the information present on the recruitment pages provided by the trade players chosen it was found that the information points were generally generic and nondescript. This lack of focus in the information provided leaves a large gap in the information needs / wants of students according to the preliminary findings throughout this research. Mazzarol & Soutar, 2002 found that agents recommendation is the lowest influencing factor for Asian students considering international studies (Mazzarol & Soutar, 2002) which might indicate an inherent lack of trust in the promotion of HEIs through these trade players via the medium of exposure through agents or otherwise – which leaves the question of what is the real value in acquiring the assistance of these trade players for HEIs.

The primary speculated advantage of the involvement of trade players within this recruitment process of prospective students is the handling of the onboarding process of the same, through the outsourcing of internal HEI processes to these other organisations. However – the information that is focused on within these trade players' advertising materiel may not be functionally optimised to entice prospective postgraduate students, according to the data gathered throughout this study.

2.4: Conclusion

Although the available literature within the realm of postgraduate student recruitment and retention is lacking - through the available literature a significant amount of emphasis has been placed on the transactional value provided by a postgraduate programme as being the priority factors that are considered by prospective postgraduate students when considering enrolment in the academic space. These transactional factors are required to put forward an image of a prestigious and valuable qualification in order to attract the most desirable students, and although it has been talked about for decades as to the importance of understanding the most impactful and effective factors that can determine a potential enrolment or non-enrolment, the area is still lacking a significant amount of student-centric literature.

The most commonly occurring impactful factors seem to be in the vein of providing a boost to an individual's career post-graduation within the areas of more desirable positions & employers, as well as increased monetary gain and greater chances of finding employment within their desired areas. These factors contribute to the overall perceived quality of education, which contributes to the overall perceived prestige of a programme as perceived by prospective students, which will then cyclically further increase the popularity and perceived quality of education for employers through the feeding of "higher quality" graduates into target industries.

Though attempts are made by HEIs and trade players alike to advertise and attract a greater number of high value postgraduate students, the information used within their advertising campaigns may not appeal to the wants of these prospective students, as dealt with later on in this research. An evaluation is made of the most commonly occurring information across numerous HEI advertisements for their programmes, which is then compared and contrasted to the "real" information wants & needs of prospective students as informed through both the literature within this section of this research, and also through the data gathered and analysed as a means to understand these information needs further and provide a contribution to the literature on this subject.

Chapter 3: Research Methodology

3.0: Introduction

This chapter presents the research objective and research questions along with the approach taken to answer the questions and fulfil the research objective. The approach taken to data gathering and data analysis for the research conducted is also discussed as part of the research design, along with an overview of the research participants and case study research site. Specifically, each of the data placements designed and used in this research are presented, and the execution of the "data placemats experiment" is also discussed.

3.1: Research Objective & Question

3.1.1: Objective:

> "*Investigate the information needs of prospective postgraduate students in an effort to better understand how to increase recruitment and retention of undergraduate students into a postgraduate offering.*"

The research objective is the primary focus of the research conducted (Wilson, 2014) The importance of formulating research questions based off the core items needed to achieve a research objective is reiterated across numerous papers by several scholars (Rao & Woolcock, 2003; Bryman, 2012)

This is an exploratory study into the information needs of final year students when considering a postgraduate offering. There is little academic evidence on such information needs in the Higher Education Institution (HEI) context and what little there is, is mainly institution centric - yet the challenges that HEIs face to design effective data-driven recruitment and marketing strategies, and the variability in information currently provided to prospective postgraduate students, presents a real opportunity for further investigation. For the purposes of this research, a focus will be put on final year business school students only (Cork University Business School) and their interest in postgraduate programmes within the business school and beyond. This allows the research to focus on the information needs for recruitment of prospective postgraduate students, but also the retention of undergraduate students into postgraduate education also. Hearing the final year student voice in this research but also comparing it to the

HEI recruitment personnel (from a Programme Director to a Director of Recruitment) voice will highlight the alignment of the respective positions on information needs and whether those information needs are being met or not. There is a tertiary aim within this research objective: that the research might lend itself to the design guidelines for postgraduate recruitment materials, specifically around the information needs that are contained within them. These guidelines would be of practical value to HEIs.

The following research questions have been formulated to focus the research in a direction that will best achieve the research objective stated above, given the additional context.

3.1.2: Research Question 1:

> *"What are the most important information needs of prospective postgraduate students?"*

The most important information needs of prospective postgraduate students will be gauged by analysing the collected qualitative and quantitative data throughout each semi-structured interview within the undergraduate student cohort. Achieving an answer to this research question is a priority within the grander objective of the research as it pertains to the specific goal of investigating the information needs of prospective postgraduate students.

3.1.3: Research Question 2:

> *"What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?"*

This is being gauged by comparing the responses of prospective postgraduate students and current postgraduate students to those of the faculty members interviewed, with the same interview questions and placemats being presented. The importance of this question is down to the contrast of opinion that will be revealed from analysing the two groups separately. Academic faculty being responsible for the preparation and presentation of information to

prospective students, it's important to see the contrast that exists – if any – between the perceived value of information between the two cohorts.

3.1.4: Research Question 3:

> *"What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?"*

As discussed within chapter 2; there is a lack of available literature within the postgraduate student recruitment space. The purpose of this question is to investigate the possible solutions that HEIs can implement to improve postgraduate recruitment. This research question will be answered through a combined effort of researching the literature of best design guidelines and strategies outside of academia and translating them into possible guidelines for HEIs.

3.2: Research Design

"A research design is a strategic framework for action that serves as the bridge between research questions and the execution or implementation of the research" (Durrheim, 2006). The following section will clarify the epistemology of the researcher, as well as the chosen research design for the research being conducted and the justification for its selection.

As a researcher I would consider myself as an interpretivist. This is due to the fact that the research being conducted is in the social, rather than natural sciences and research conducted within the realm of social sciences must reflect the distinctiveness of humans (Cohen, Manion, & Morrison, 2017; Bryman, 2012) Acknowledging that the research being conducted relies heavily on the experiences of individuals within the subject area, and the interpretivist epistemology of the researcher – the collection of data favours qualitative over quantitative data collection methods as the primary method to be used.

For the purpose of answering the research objective and questions addressed previously, the research being conducted will focus on building theory. The reasoning behind building theory for this research is that, according to the available literature covered in chapter 2, the subject area has not been well built or tested. The objectives are exploratory in nature, rather than explanatory or descriptive, and therefore contribute to the focus on building theory. As (Yin, 2009) explains, research questions of a "what" nature lend themselves to an exploratory study. In attempting to build theory, the researcher is exploring the importance of specific information

criterion on behaviour, and a data driven approach to harnessing the behavioural patterns to grant the best advantage to HEIs, specifically Cork University Business School.

3.2.1: Design Considerations

This section will discuss the various research designs researched and considered by the researcher. This section will also give a brief synopsis of each research design, with the advantages and disadvantages of each and its suitability for the research being conducted. The suitability of a research design revolves around the research objective and questions.

Throughout the process of discerning the most appropriate research design to conduct the required research, several designs were considered. These designs included: Mixed Method Triangulation Design as described by Creswell, 2018.

Mixed Methods Triangulation Design

The Triangulation Design's stated purpose is to "obtain different but complementary data on the same topic" (Morse, 1991). Similar to other mixed method research designs, (Creswell, 2018) summarises that it combines the differing strengths and nonoverlapping weaknesses of quantitative methods, with those of qualitative methods such as in-depth interviews. (Creswell & Clark, 2018). Triangulation Design seeks to directly compare quantitative statistical results with qualitative findings or to validate or expand quantitative results with qualitative data (Patton, 1990). The Triangulation Design is suitable for exploratory research – however, it's a mixed method form of research which relies on quantitative and qualitative data equally. Given the focus on qualitative data gathering throughout this research, there wouldn't be enough quantitative data for the purpose of validation to the extent required by this approach and was therefore deemed as non-appropriate for the purpose of the research being conducted.

Quantitative Exploratory Case Study

This method of research design is consistent with the requirements of the research being conducted. Used by numerous researchers for the purpose of exploring a subject, it is exploratory in nature and relies on an objective of building theory (Fritz, 2011; Eckles & Stradley, 2012). However, due to the reliance on quantitative methods for data gathering and analysis – it is epistemologically inconsistent with the researcher. The quantitative methods are not a correct fit with the research objective of studying behaviours, either. Therefore, for both

the epistemological and research objective mismatch – the quantitative exploratory case study would not be a good match for the research being conducted.

Qualitative Exploratory Case Study

Like the method outlined above, this research design is exploratory in nature and contributes to research directed at building theory. Examples of Qualitative Exploratory Case studies can be seen in (Kaae, Sonergaard, Haugbolle, & Traulsen, 2010) and (Osgerby, 2012). The exploratory nature of this research design is consistent with the research area. Epistemologically the qualitative exploratory case study research design is lines up well with that of the researcher.

Why a case study?

This section will provide justification and context behind the decision of choosing a case study design for the research being conducted.

> *"Case Studies are Particularly well suited to new research areas or research areas for which existing theory seems inadequate. This type of work is highly complementary to incremental theory building from normal science research. The former is useful in early stages of research on a topic or when a fresh perspective is needed, whilst the latter is useful in later stages of knowledge".*
>
> (Eisenhardt, 1989, pp. 548-549)

The case study design is very suitable for developing theory (Eisenhardt, 1989; (Harris & Sutton, 1986; Eisenhardt, 1989; Yin R. K., 2018) which is what this research sets out to achieve. Eisenhardt refers to this as the likelihood of generating novel theory from case study research. A common misconception of case study research is that it is limited by researcher pre-conceptions, however, the opposite is true (Eisenhardt, 1989). Creating insights from juxtaposing contradictory evidence often has the impact of shaking up thoughts in an area and thus contributing to developing theory. Having a research objective aimed at investigating and exploring the information needs of prospective postgraduate students, a case study design is appropriate.

(Benbasat, Golstein, & Mead, 1987) also argue that case study research is a suitable way of researching an area in which little to no research has been conducted in the past. The design allows the examination and exploration of phenomena in their natural setting, very consistent with what the research is attempting to achieve in this case. When assessing the suitability of a case study design for conducting research, 4 key questions are proposed:

- Can the phenomenon of interest be studied outside its natural setting?
- Must the study focus on contemporary events?
- Is control or manipulation of subjects or events necessary?
- Does the phenomenon of interest enjoy an established theoretical base?

This research requires a natural setting and a focus on contemporary events, manipulation of subjects or events is not necessary for the purpose of the research being conducted, and the area of research does not enjoy an established theoretical base within academia. Single case study is also claimed to be suitable at the outset of theory generation and late in theory testing (Yin R., 1981). This research being early in the theory development stage is consistent with Yin's suitability recommendation for single case research.

Therefore, using a research design of an exploratory case study using qualitative data collection techniques is the most appropriate design as it is consistent with the researcher's epistemological position and will support the research objective and the answering of the research questions outlined previously. This design will allow for the exploration of the information needs of prospective postgraduate students and a further understanding of improving recruitment and retention.

3.2.2: Protocol

Having chosen a case study research design, the next stage in developing the methodology is the creation of case study protocol. This protocol will be informed by Eisenhardt, who offers a case study protocol for building theory from case study research.

Eisenhardt breaks her approach into nine stages:

- Getting Started
    - Definition of research objective & questions to focus efforts and provide better grounding on construct measures.
- Selecting Cases
    - Specify population for data gathering to focus efforts on theoretically useful cases.
- Crafting Instruments and Protocols
    - Specify data collection methods to strengthen grounding of theory by triangulation of evidence.
- Entering the Field
    - Overlap data collection & analysis, to reveal helpful adjustments to data collection.
- Analysing Data
    - Within-case analysis using cross-case pattern searching, preliminary theory generation and familiarity with the data being collected. Also forces researchers to look beyond initial impressions.
- Shaping Hypotheses
    - Tabulation of evidence for each construct and searching for the "why" behind relationships within the data. This can confirm, extend, or sharpen a theory, as well as build internal validity.
- Enfolding Literature
    - Compare with similar and conflicting literature to further build internal validity and raise theoretical level.
- Reaching Closure.
    - Saturate the theory if possible – and end the process when marginal improvements become small.

Having introduced the case study protocol to be used, the next sections will provide further detail on the data gathering and analysis techniques. Each section will discuss the characteristics of the techniques to be used along with the strengths and weaknesses of each technique and how each technique was used to explore information needs of prospective postgraduate students.

3.2.3.: Case Context

This section will discuss the context of the case study undertaken. This includes the reasoning behind localising the study to Cork University Business School, how the research can benefit CUBS in achieving their strategic vision, as well as the importance behind selecting the three groups of interviewees within the data gathering phase – and how they apply to answering the three research questions described earlier in this chapter.

Cork University Business School

University College Cork (UCC) was founded in 1845 and has remained the centre of educational excellence in the south of Ireland. Currently – UCC offers a range of flexible full-time and part-time higher education programmes. Within the university there are several schools, Cork University Business School (CUBS) is the focus for this research.

CUBS was established in 2015 and has since become the largest educator of Business undergraduates in Ireland – following the vision of becoming a nationally and internationally recognised business school, known for the excellence of the student learning experience and for the impact of their research on business and society.

Student Profile

With a consistent student population of over 20,000 - UCC has a vibrant student body contributing to successful research, innovation, and enterprise projects.

Table 6: UCC Student numbers

Student Type	2018/19	2019/2020	2020/2021
Undergraduate	15,454	16,650	14,559
Postgraduate	4,720	4,949	5,983
Total	20,174	21,599	20,542

Table 7:Percentage of UCC Student Population in PG Studies

	2018/2019	2019/2020	2020/2021
Postgrads as % of total student population	23.4	22.9	29.12

Table 8: CUBS Student Numbers 2021

Undergraduate	Postgraduate	PG % Of Total Pop.
3,217	826	20.43

As can be seen from the figures above, despite the large increase in the overall percentage of postgraduate students within UCC – CUBS is significantly behind in its own postgraduate student enrolment for 2021 compared to the average within UCC. This lower rate of postgraduate enrolment within CUBS is a good reason why it can be focused on as the case study within this research – as it is underperforming in comparison to the rest of the university despite the growing suite of postgraduate programmes within the CUBS catalogue.

The impact of raising the rate of postgraduate enrolments within CUBS either through retention from undergraduate studies into postgraduate or through external recruitment is significant. An increased rate of postgraduate enrolment within CUBS inevitably leads to an increased level of research produced by the school – contributing to the CUBS value of collaboration, where an increased engagement with industry through cutting edge and innovative research is encouraged. A higher rate of postgraduate enrolment also leads to a higher standard of education and preparedness for students coming out of CUBS – this higher level of education would ultimately increase the reputation of the business school of being able to produce high value leaders and figures in industry and otherwise. On top of the reputational value increase that a higher rate of postgraduate enrolment would have within CUBS – it would also massively benefit the school financially. Postgraduate students are, in general, far more profitable than undergraduate students per student per year within a HEI. Therefore, an increase in postgraduate enrolment would lead to higher rates of profit for CUBS, allowing it to strive towards satisfying its own goals of investing in physical and digital infrastructures to support learning which will in turn enhance professional development and career advancement of students within the school.

3.3: Data Collection

The primary data collection technique used within this study was the use of interviews.

3.3.1: Interviews

Interviews are a qualitative form of data collection involving conversation, often structured with someone from whom you are trying to get some information (Thomas, 2015; Yin, 2018). The information sought from interviews can be facts, opinions, attitudes, or combinations of all three (Thomas, 2015). There are three types of interviews; un-structured, semi-structured and structured (Thomas, 2015; Bryman, 2012). Yin describes three types of interviews: open-ended, focused, and formal. Whereas Cohen et al. describe the types as informal conversational, standardized open ended and finally closed interviews. An open-ended or un-structured interview is characterised by the respondent being asked questions about a particular topic and then letting the conversation develop without any pre-defined script (Yin, 2018). The respondents' opinions may prompt the interviewer to pose more probing, but unforeseen questions, giving the interview the "unstructured feel" (Yin, 2018). The formal or semi-structured interview also allows for open ended questions but in this type of interview the interviewer is following a pre-defined line of inquire, often derived from the case study protocol (Yin, 2018). The third type of interview, the structured or formal survey interview, will likely ask a very set list of questions with very few if any open-ended questions or opportunities for the respondent to deviate. An interview can be completed either face to face, also known as in-person interviews, or over telephone (Thomas, 2015). Interviews are used frequently for data collection in case studies as they provide the "human account" (Yin, 2018) that can give real depth to a social science study, particularly for interpretivist researchers. A common issue that with interviewers must address is the question of how to record the interview (Yin, 2018). It can be recorded manually by the interviewer in real time, or an audio or video recording device can be used (Yin, 2018).

<u>Strengths of Interviews:</u>

Interviews as a data collection method have numerous strengths. Firstly – if properly structured they can be targeted and can ensure the researcher is asking for exactly the

information that they are looking for (Yin, 2018; Thomas, 2015). They are also insightful in that interviewers can learn through further conversation and probing, insight that might otherwise not have revealed themselves if the interviewer were not present (MacNealy, 1997; Yin, 2018). Interviews also encourage a greater level of participation than self-driven instruments such as questionnaires (Yin, 2018; Thomas, 2015).

Weaknesses of Interviews:

Bias is stated as one of the primary weaknesses across literature, both on the part of the interviewer (MacNealy, 1997; Yin, 2018; Bryman, 2012) and the interviewee (Yin, 2018). There is a risk that the interviewer hears what he/she wants to hear and also that the interviewee is saying what he/she feels the interviewer wants to her. Yin (2018) also refers to this type of participant bias as reflexivity. Interviewer bias can also manifest itself in the interviewer affecting the conditions or the environment which in turn may influence the interviewee's responses (Cohen et al., 2017). How the interview is recorded can present several weaknesses, in particular if a recording device is not used and the interviewer tries to take notes while interviewing. This can result in inaccuracies due to poor attention during the interview and poor recalling afterwards (Yin, 2018). Interviews can be time consuming particularly in their transcription (MacNealy, 1997). While the appeal of transcription software may provide a reduction in time, the loss of context and real learning with such a method would rule it impractical and counter-productive (Yin, 2018)

3.3.2: Semi-Structured Interviews

Consistent with epistemology and design, the primary source of data collection was interviews, as well as limited passive participant observation.

The first step in undertaking the data gathering required to address the objective and questions stated above was the structuring of the interview, and creation of the questions that would be asked. Individual interviews were selected as the preferred data gathering method. Individual interviews were decided upon primarily because group interviews generally "prevent delving as deeply into the individual" when gathering qualitative data (Crabtree & Benjamin, 2006), and individual perspectives and reasoning behind answers are an important source of

information in the attempt to answer the primary research questions pertaining to the objective of this research.

Given the suitability of semi-structured interviews to an exploratory case study due to its ability to have open-ended questions while still following a specific line of inquiry (Yin, 2018), it was chosen as the most fitting format for the interviews to be conducted within this research. The interview guide also included a data placemat experiment which will be discussed later in this section.

The questions that were included within the interview guide were formulated to get a background of the students being interviewed, their awareness of postgraduate programmes, and a preliminary information needs analysis. The only exception to the structure of the interview being followed was in the case of faculty interviews, whereby the questions to gather the interviewee background were excluded. Open-ended questions were utilised throughout the interview structure to allow for those being interviewed to discuss their experiences relating to the questions being asked (Turner, 2010). A number of questions throughout the interview were created to touch back on a previously asked question Creswell makes the suggestion of being flexible with research questions in their construction. Several questions along a similar vein of investigation were included within the interview guide, to touch back upon previously discussed topics to assure that each interviewee has sufficient opportunity to talk through their experiences within the most important topics included in the interview (Creswell & Poth, 2018)**.**

Also included within the semi-structured interviews was a section reliant on illustrations of potential information – the Data Placemat Experiment.

3.3.3: Interview Groups

This section will discuss how the individuals interviewed were categorised into one of three groups, how these groups were selected, and how interviewing the individuals from each group can contribute to answering the research questions discussed at the start of the chapter.

There are three groups that were identified as having the greatest value in information that could be gathered from them. Prospective postgraduate students (current undergraduates), faculty members, and current postgraduate students. All of the three groups are based in CUBS for the research conducted.

Prospective Postgraduate Students

The research gathering conducted with the prospective postgraduate students (current undergraduates) is the keystone with which the research can be held up. Primarily, the research seeks to investigate how to increase the recruitment and retention rates of these prospective postgraduates. Interviewing this group contributes to all of the research questions discussed at the start of the chapter, however, primarily deals with research questions 1 & 2 – discovering the information needs of prospective PG students, and identifying the differences in perceived information needs and actual information needs. The data gathering process for these current undergraduates will consist of the full semi-structured interview.

Current Postgraduate Students

Current postgraduate students were selected as a contributory group to the research due to their current enrolment in postgraduate education. Though the results of interviewing this group of individuals might not be used to discover the information needs and contrasts in faculty & student perceived information needs – the conversations that will be had with each postgraduate student will contribute to the context of "why" when it comes to postgraduate studies. The interviews conducted with these individuals will be retrospective in nature, asking each postgraduate interviewee to reflect on their process of exploring, deciding, and applying for their current postgraduate programme. The interview process for current postgraduate students will follow the same semi-structured interview used for prospective postgraduate students.

Faculty

Faculty members – primarily involved in recruitment and postgraduate programmes within CUBS – are an important group to interview for their contribution to the research. They are the primary decision makers when it comes to the recruitment strategies and advertising materials that are used to market the postgraduate opportunities for prospective students. When interviewing the faculty members – they will be asked the same questions as the undergraduate and postgraduate students within the same semi-structured interview. The reasoning behind including faculty members as one of the groups to interview within this study, is mainly to address research question 2. Research question 2 seeks to identify the differences in the

perceived information needs as perceived by faculty members in contrast to the actual information needs of prospective students.

3.3.4: Thematic Analysis

This technique offers significant flexibility in analysing data (Bryman, 2012). It is technique that is easy to learn and undertake, making it ideal for even inexperienced researchers (Cohen et al., 2017). This technique can highlight differences and similarities across the data and can also generate unanticipated insights (Bryman, 2012). While coding may categorise data and put significant structure and order on it, there is a risk that without further analysis, such as thematic analysis, appropriate context may be lacking leading to inaccurate findings (Joffe & Yardley, 2004). While all analysis techniques are heavily dependent on the quality of data collection, this technique is also heavily dependent on quality in data analysis, given it is often dependent on the results of coding of data (Cohen et al., 2017). While flexibility is certainly an advantage of this technique, it can also prove to be a disadvantage as it can drag out and cloud the research progress (Bryman, 2012)

The thematic analysis of the gathered data was passively done throughout the process of completing the other two analyses. It did, however, assist in the development of a clearer view of recurring talking points and opinions through the construction of a matrix to note the central themes of the data. Bryman's description of this technique as the "product of a thorough reading and re-reading of the transcripts or field notes that make up the data" encapsulates the practical implementation of this form of data analysis, and how it was conducted throughout this research (Bryman, 2012).

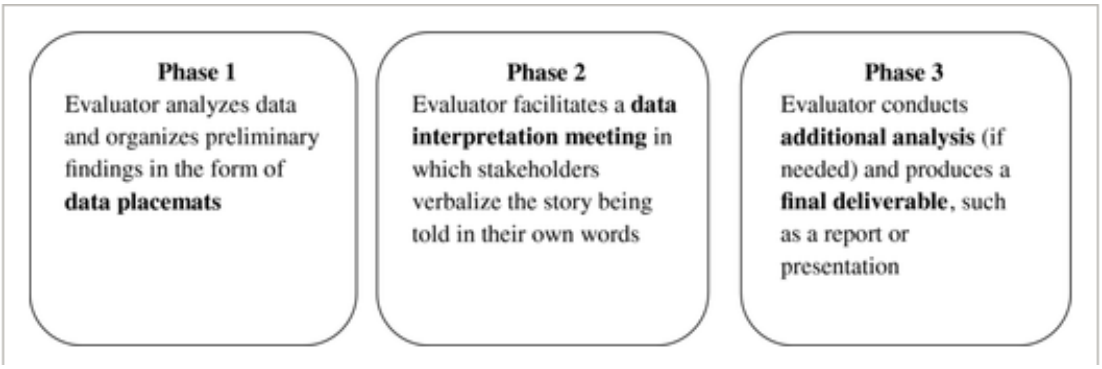
3.3.5: Data Placemat Experiment

Data placemats are a facilitative technique to give stakeholders a quickly readable and digestible view of target data. The primary function of data placemats is to "encourage stakeholder interaction with collected data and to promote the cocreation of meaning under the guidance of an evaluator" - (Pankaj & Emery, 2016). A data placemat is an image that shows grouped pieces of data in a simplistic form – often as graphs, charts and quotes depending on the cadence of the data and the stakeholder group that it is being presented to.

The purpose of including data placemats as one of the primary data collection tools during this research was to encourage conversation around the information included on each placemat. These placemats and the information contained on each was informed through exploring the most common/popular information that was contained within the information pages of postgraduate programmes - of the same or near same title - within 14 top international business schools, 7 in Europe and 7 in the United States, and also through the speculated most important information needs as speculated on by the researcher. It is also used as a form of low-fi prototyping of the presentation of the information included.

The proper usage of data placemats requires three phases as laid out by Pankaj & Emery , 2016.

Figure 1: Data Placemats Methodology



Phase 1:

The researcher investigated the most common information presented on HEI information pages relating to postgraduate offerings as a first step. Placemats were then created, informed by the findings of this research. The researcher also speculated on the most important information needs of students as perceived by the researcher and created placemats including the information that they themselves theorised as being the most important to a student in their decision-making process or as being the most impactful.

A number of the initial placemat designs were created with a review of what is provided to prospective students. These reviewed informational topics were then mixed with several other placemats of information that is assumed as useful, but which is lacking in detail. The researcher also did a review of 14 purposefully chosen schools both globally and nationally. The schools chosen on a global scale were chosen from the top rankings for business schools across a number of different sources.

Phase 2:

Interviews were carried out with individuals across three stakeholder groups within the business school of University College Cork. These groups are separated into the following:

- Final year undergraduate students (prospective postgraduate students).
- Faculty members involved in postgraduate programmes or postgraduate student recruitment.
- Current postgraduate students enrolled in programmes within Cork University Business school.

All of the interviews conducted consisted of a data placemat experiment – whereby the interviewee would be presented with 9 placemats (shown below), a narrative behind ones that are not rich in information, and 2-3 questions under each whereby they would be asked to rate the value, impact, and influence of each placemat. These placemat experiments were conducted during the interview so that the interviewee could explain their reaction to each data placemat and their reasoning behind the scores they would assign them individually.

Phase 3:

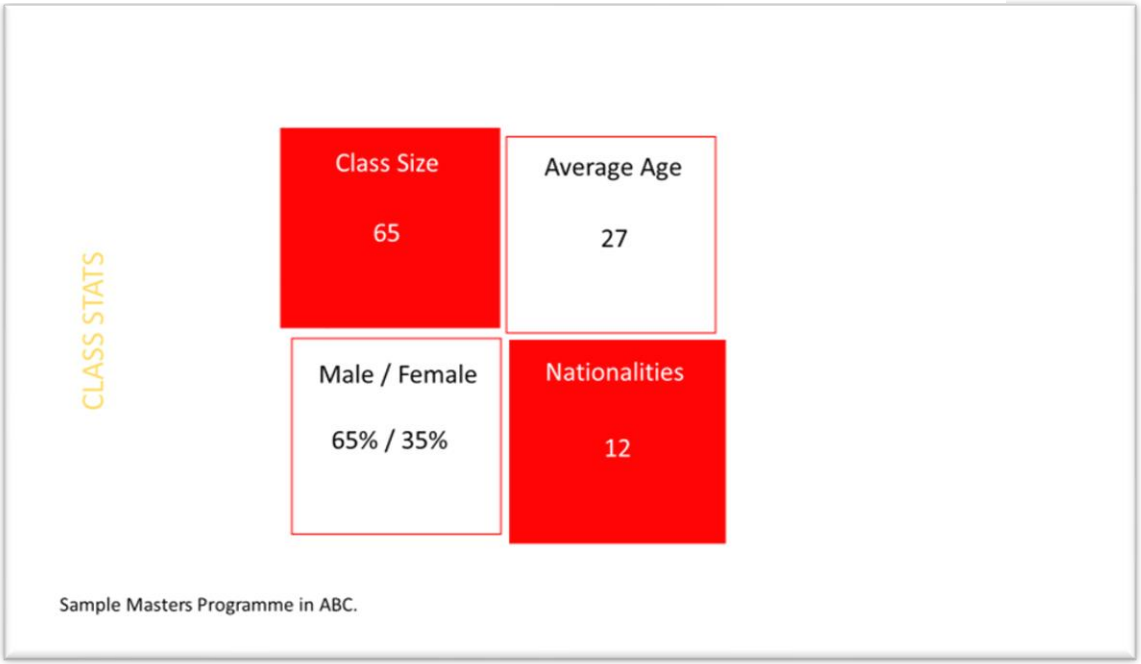
A qualitative analysis was conducted on each interview, following a transcription of each, as well as a quantitative analysis carried out on the submitted answers to the questions attached under each placemat. A constant objective through the analysis of these interviews was to gauge the disparity between what a faculty member considers as important information in comparison to the same from the students interviewed. Final analysis and presentation of the discovered trends is presented in a later section, dealing with the analysis of the data placemat responses and also the interviews conducted as a whole.

Within This Research:

The data placemat experiment is the primary data gathering method used throughout this research. It consisted of conducting interviews with individuals and sharing a pre-made form including all 9 of the data placemats shown in the section below. These placemats were primarily used to encourage discussion surrounding the information included within each placemat, and for the researcher to participate in nuanced conversation to better inform themselves in the information needs of prospective postgraduate students. These conversations encouraged by the inclusion of the data placemats were highly valuable for the research being conducted.

Class Stats

Figure 2: Class Stats Placemat

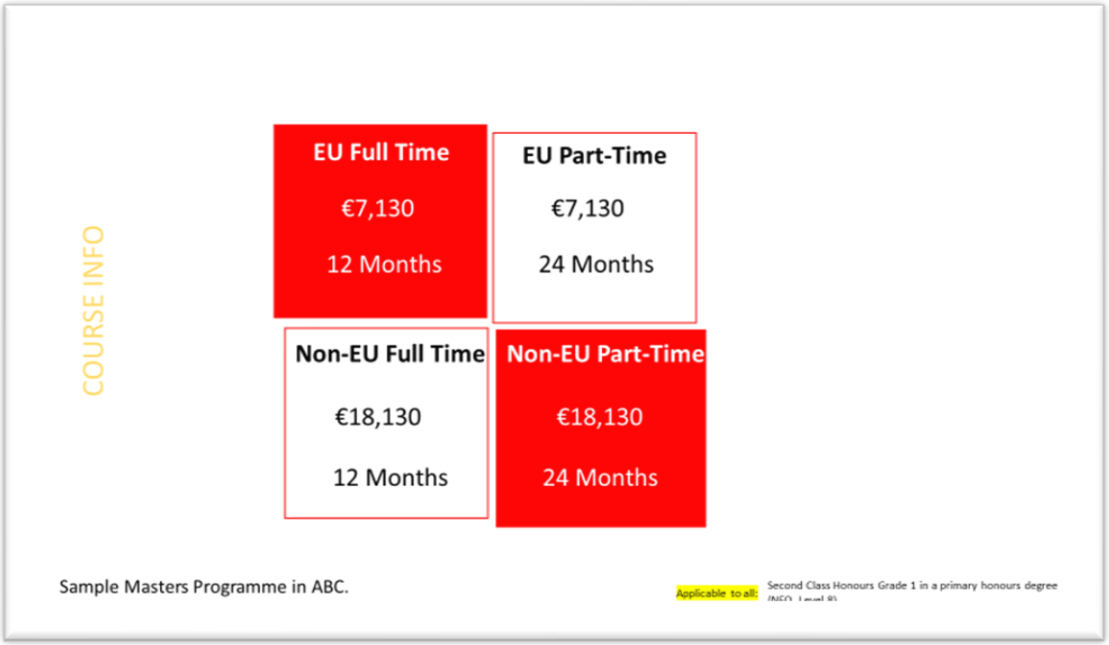


The Class Stats placemat consists of the average class size, average age within the class, the gender split and the average number of nationalities enrolled in the programme. The idea behind this placemat is to encourage a conversation around the social make-up of any given programme that a prospective student might be interested in and gauge if the social make-up is something that a student cares about – and if so – to what degree. This placemat is also intended to measure the most impactful part of the social make-up of a class for a student.

The information headings contained within the placemat were informed by a several top international business schools who had this information present across a number of their information pages relating to postgraduate offerings.

Course Info

Figure 3: Course Info Placemat

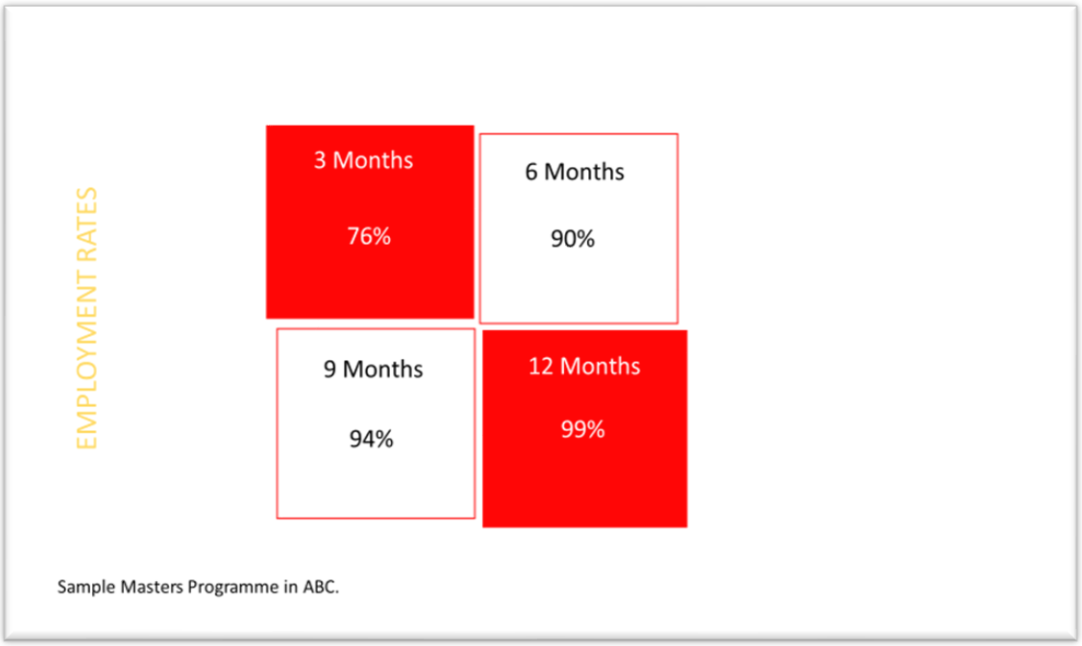


The Course Info data placemat was informed by the most common information contained about each postgraduate programme encountered – the Fee, Length of the programme in months and the entry requirements to enrol. This placemat was included as a control mechanism primarily to gauge the responses of interviewees – as the price, length and entry requirements are the most basic pieces of information that any prospective student should be informed about.

The desired outcome of including this placemat is to discover whether the monetary price or the time commitment is a more substantial influence on an individual's choice when deciding whether to enrol in a programme or not. The information included in the placemat itself was informed by taking the average price & length of a master's programme from the business schools within Ireland.

Employment Rate

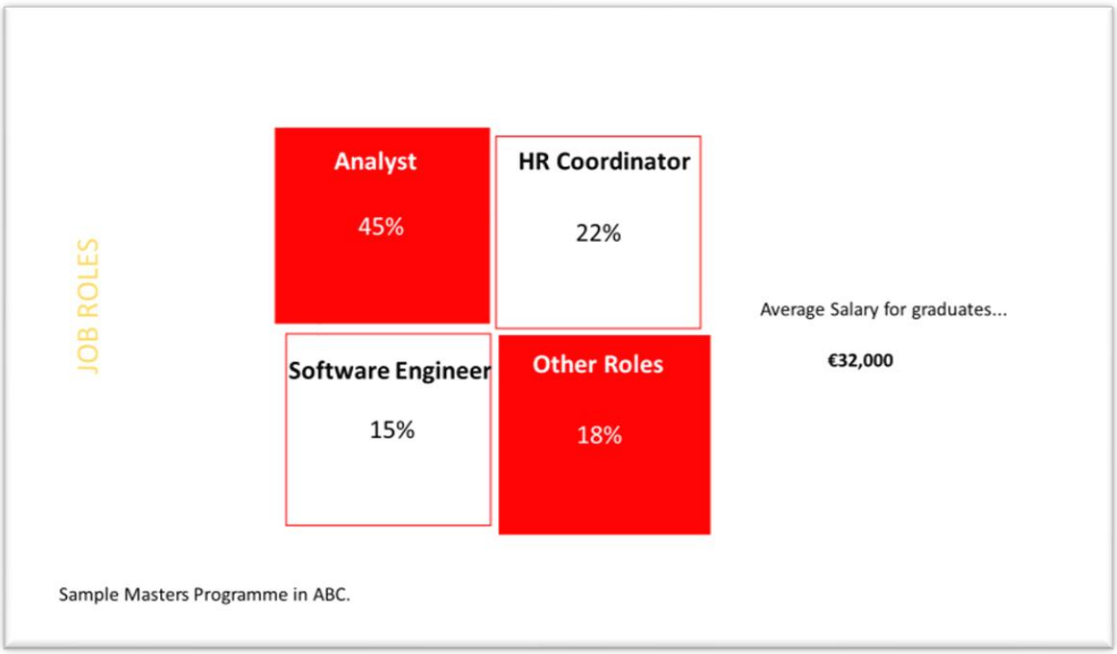
Figure 4:Employment Rate Placemat



The employment rates of a programme are one of the theorised most important information needs of students. The information contained on the placemat itself is not informed by any real statistics. This is reinforced to interviewees during the interview so that they can consider the titles of the information itself rather than the data contained within it. The purpose of this placemat is to get a testimony from students as to how useful and influential it would be to them to see the employment rates achieved by students of a specific programme that they would consider enrolling in, and also to coax out a conversation surrounding the context of the data itself, due to the non-descriptive information contained in the placemat.

Job Roles

Figure 5:Job Roles Placemat



Job Roles shows the top 3 most common generic job roles that graduates of a programme acquire post-graduation, as well as the percentage of the class that is in that role on average. The placemat also shows the average salary of the entire programme class once employed. The genericism of the information that is present in the placemat is meant to encourage conversation surrounding the data context - similar to the employment rates placemat which could include individuals employed in areas not relating to a course. This placemat has a similar goal as the employment rates placemat. The information present is informed by generic job titles listed on several international universities' information pages for master's programs. The percentages are totally false. The average salary sum included is informed by the average graduate salary listed on recruitment sites relating to graduate positions with titles similar to the generic titles included.

Student Testimonies

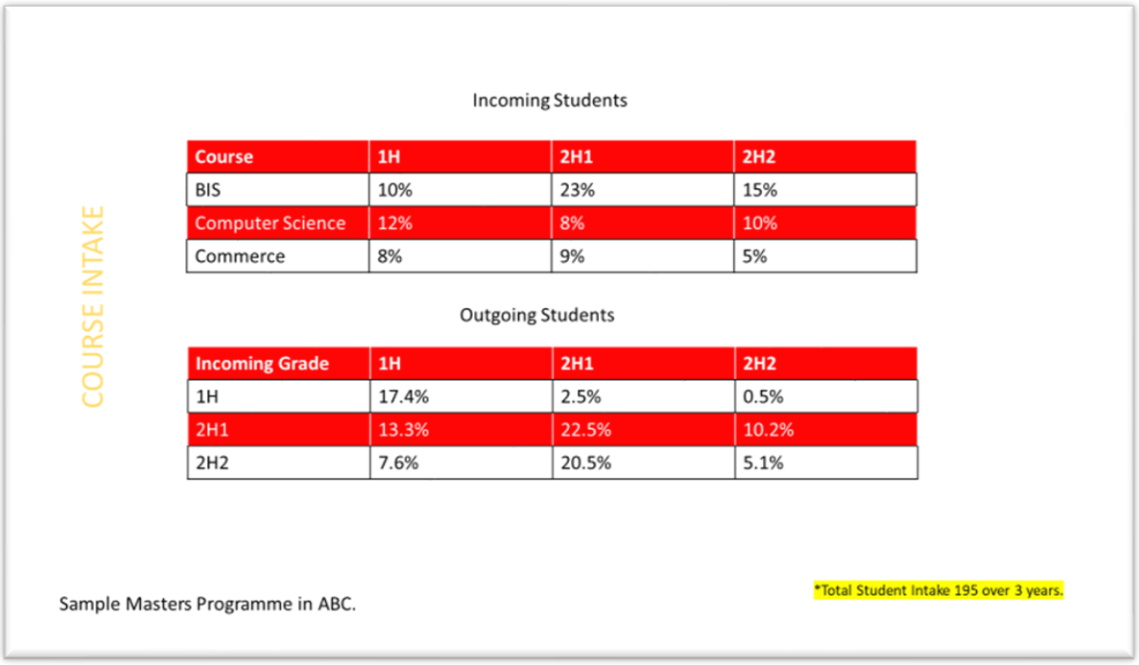
Figure 6: Class Statements Placemat



Student testimonies is a placemat that is informed by the testimonials included on quite a large proportion of programme information pages. The placemat itself requires further explanation to the interviewee however, as the context behind it is that the portraits would be links to a longform testimony – either in video format or long text format. The proposal of those ideas is to encourage the interviewee to voice their own opinion around what would be the most influential to them.

Grade Distribution

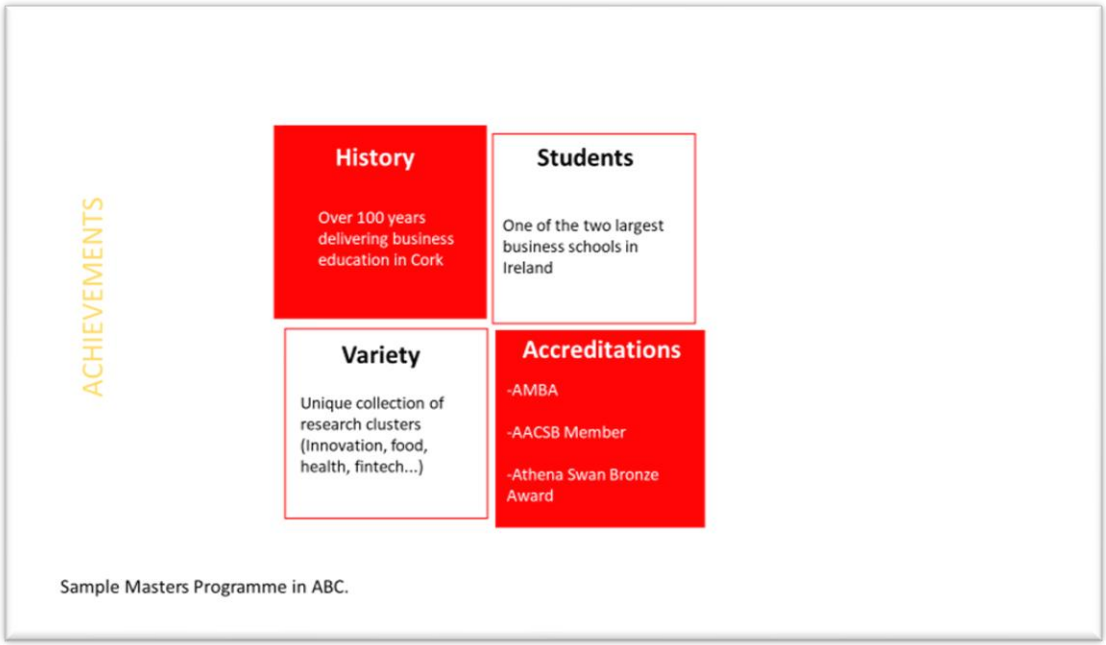
Figure 7: Course Intake Placemat



Grade distribution consists of two figures, the incoming grades of students as split up by the three most common undergraduate programmes students apply from, and further separated into 1H, 2H1 and 2H2 grade profiles. The outgoing students figure shows the grade distribution of students graduating from the programme, with the X axis being the incoming grade achieved in their undergraduate courses. The information contained in these tables are purely fictitious and are not informed by any sources other than the imagination of the researcher. The route of conversation trying to be achieved in the presentation and discussion of this placemat is to discover if students would find a detailed look at the grades achieved by past students as useful information.

Achievements

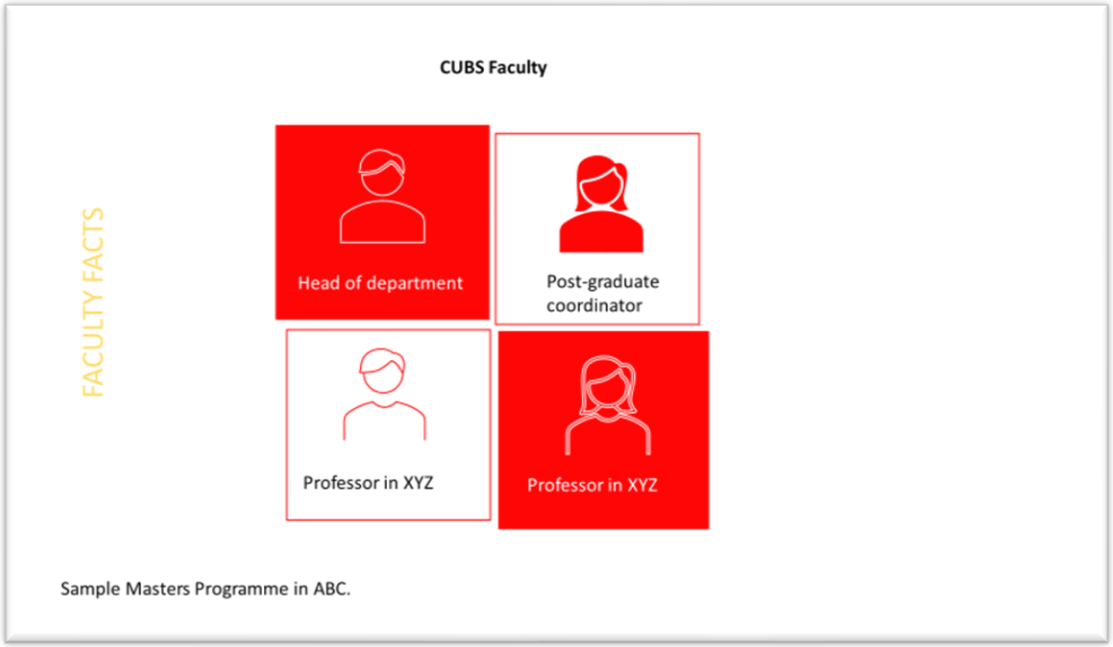
Figure 8: Achievements Placemat



This placemat has a level of nuance attached to it when it is to be presented to interviewees – the achievement titles and information contained within are totally interchangeable with achievements at a University, School, or Programme level – the intention for the placemat is to encourage a conversation surrounding the usefulness of being able to see the achievements of the institution a student is considering enrolling in. The achievements contained within the placemat were informed by University College Cork's own achievements and also those of Cork University Business School.

Faculty

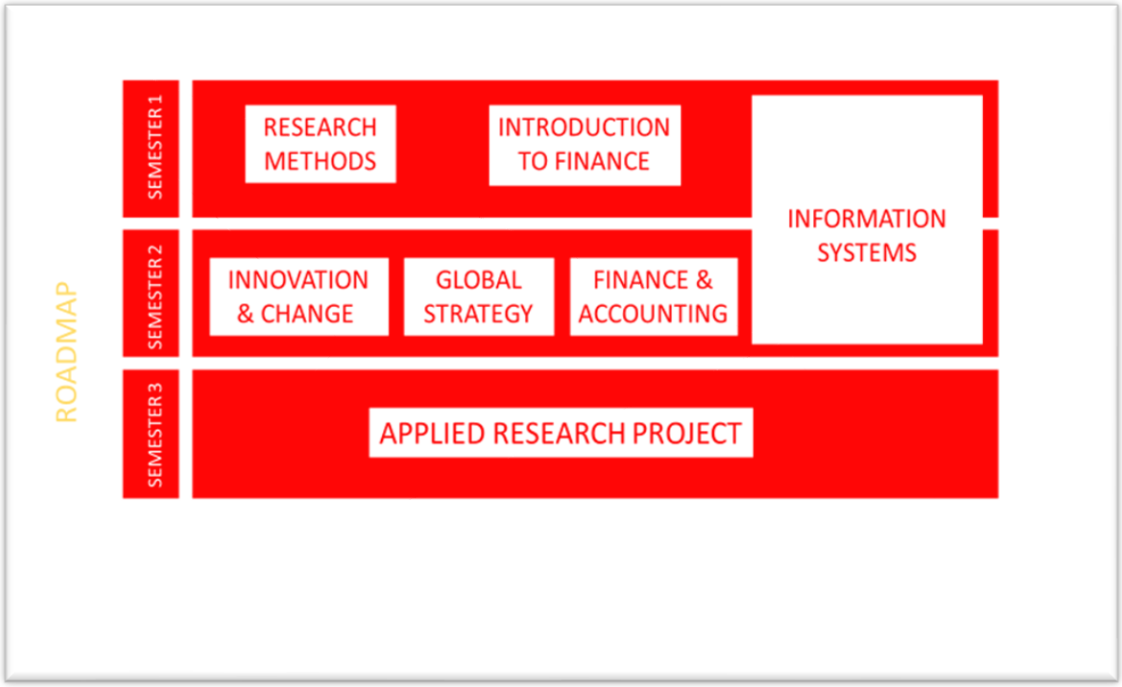
Figure 9: Faculty Placemat



Similar to the student testimonies data placemat, the Faculty placemat requires a small explanation on the desired real-world implementation of the placemat – in that each faculty member would have a portrait that would link to an external source of information, either in video format, long form text or at a basic level their research profile within the university. As there is no real information included in this, it is entirely a conversation starter surrounding the importance of knowing or indeed being acquainted with the faculty members involved in a postgraduate offering being considered by a student.

Roadmap

Figure 10:Roadmap Placemat



The roadmap placemat is very basic in presentation and in the desired outcome from it. It shows the module breakdown of a programme over three semesters and is meant to encourage a conversation surrounding the value of being able to see the modules involved in a postgraduate programme.

Table 9 below shows the criteria that are linked to each individual placemat, these criteria are informed by the literature reviewed within chapter 2.

Table 9: Criteria Link to Data Placemat

	Criteria	Class Stats	Course Info	Employment Rates	Job Roles	Class Statements	Course Intake	Achievements	Faculty Facts	Roadmap
University Selection Criteria	Institution Name Recognition									
	Cost									
	Faculty Reputation									
	Geography									
Programme Selection Criteria	Cost									
	Career Prospects / Employment Rates									
	Quality of Education / Qualification									
	Reputation of Programme									

3.4: Data Analysis

The data analysis techniques utilised in this study included coding, constant comparison, and thematic analysis. This section will first touch upon the characteristics of each of these techniques and then elaborate on how each was used within this research.

The analysis was conducted across the three groups of interviewees, Undergraduate (prospective postgraduate students), Postgraduate students and Staff/Faculty. These three groups had to be analysed separately and then compared once all three analyses were completed.

Undergraduate Interviews

In total – the undergraduate interviews made up 8 hours and 51 minutes of recorded interview conversations across 15 interviews. The reason for interviewing this group – the undergraduate (prospective postgraduate) students – is that the conversations that arise within this group are arguably the most important conversations to take place during the research, as without the input of prospective postgraduate students in their information needs the research questions cannot be answered. Given that the research is student-centric in its approach and goals, it's important that the greatest number of interviews were conducted with prospective students.

Postgraduate Interviews

Throughout the process of interviewing the 9 postgraduate interviewees who participated in the research – 5 hours and 36 minutes of conversation was recorded. The purpose of interviewing the postgraduate students was to gauge whether there was a large disparity in the information needs of prospective postgraduate students and the information needs of current postgraduate students, or what they felt their information needs would have been when considering enrolling in a postgraduate offering.

Faculty Interviews

Within the faculty cohort of interviewees, there were 10 officially recorded interviews resulting in just over 7 hours of conversation. Faculty members are an important part of the postgraduate recruitment process as they control the information that is presented and advertised to publicise postgraduate offerings. Not only that, but faculty are also the first point of contact for interested prospective postgraduate students. Determining whether the perceived information needs of students according to faculty contrasts or compliments the actual information needs of prospective students as recorded through the interviewing process of both undergraduate and postgraduate students is to assist in answering primarily research question 2 stated above.

Table 10: Interview Times across 3 groups

	No. of Interviews	Max	Min	Mean	Total
Undergraduates	15	49:10	20:31	35:26	8:51:24
Postgraduates	9	57:31	24:56	40:53	6:08:03
Faculty / Staff	10	1:00:32	30:29	42:27	7:04:34

Coding

Coding is the process of assigning meaning to data by putting tags, labels, or names against pieces of data (Thomas, 2015). In essence, coding aids in the indexing of data which allows for its identification and retrieval to be more efficient (Thomas, 2015). This also aids in the identification of themes and patterns within the data (Thomas, 2015; Bryman, 2012). Following the gathering of data, the researcher analyses these notes to find patterns or recurring categories throughout the whole sum of gathered data – it is the documentation of those patterns or categories which code the data (Westbrook, 1994).

Throughout this research, coding played an important role in the analysis of the data that was gathered. Primarily whenever pieces of information present within the data placemats, or possible decision-making criteria were mentioned during interviews, these were noted. These notes were then added to the end of each transcribed interview, and later transferred to an excel

spreadsheet whereby recurring codes could be identified across all interviewees, and the three interviewee groups.

Constant Comparison

The constant comparative method, created by (Glaser & Strauss, 1967) is generally recognised as the most effective means of content analysis (Lincoln, 1985; Mellon, 1990; Westbrook, 1994). One of the most common analysis methods for an interpretive researcher, this involves going through the data repeatedly, coding, analysing, and comparing each element to gradually form categories (Thomas, 2015; Westbrook, 1994). The researcher goes through several cycles of comparison to ensure that the coding scheme is accurate and useful (Westbrook, 1994). An aspect of 3-109 grounded theory (Bryman, 2012), this method can assist with the development of themes (Thomas, 2015), concepts (Bryman, 2012) or constructs (Punch, 2005) which summarise the data. Once themes are developed, the researcher can then move onto exploring any interconnections that may exist between the themes (Thomas, 2015). The technique lends itself to conducting longitudinal analysis with relative ease as it allows the researcher to track changes over time (Bryman, 2012). It is also quite flexible as they can be applied to a wide variety of data regardless of its structure (Bryman, 2012). A further benefit of this method is that while the analysis commences with raw data, the technique of constant comparison will generally assist with theories emerging (Punch, 2005). This of course is important as insights are of no use to the researcher unless they are converted into an element of theory, otherwise they are merely anecdotes (Glaser and Strauss, 1967). This technique isn't exempt from flaws, however. Coding can only be as good as the underlying data being analysed. If the underlying data is questionable for various reasons (authenticity, credibility, representativeness) then any coding of this data will also be questionable (Bryman, 2012). This technique lends itself to researcher bias, as any coding technique devised is likely to have some interpretation on the part of the coder (Bryman, 2012). A further drawback of this method is that it can be very labour intensive and time consuming (Punch, 2005).

Throughout the analysis phase of the research, comparison was being made primarily through tables created within Word and Excel. Recurring conversations and opinions during specific parts of the interview were primarily compared to both similar and differing conversations that would occur in different interviews but within the same area of discussion.

3.5: Gaps in Research & Potential Continued Efforts.

"It is important to make the design explicit, to get it out in the open where its strengths, limitations and implications can be clearly understood" (Maxwell, 2008)

Specifically, within this section the limitations of the research are addressed.

Limitations:

- A limited interviewee pool cannot be representative of the larger student-base within a third level institution or indeed within a school within that third level institution. As all student interviewees were based within the Cork University Business School the results of the research might be skewed towards a certain student cohort. Segmentation of the student body would be required in order to discover the differing information needs of different groups. The limited interviewee pool also meant that a further separation of student groups was not possible. Segmentation is defined as the process of identifying and profiling homogeneous groups who differ in their needs and preferences (P. Kotler, 2016) and the current body of interviewees can only be seen as three segments out several hundred that could be within University College Cork. For example – being able to identify the information needs of students returning to education after several years in their career, or mature students who have recently completed their undergraduate programme could prove valuable for HEIs in their efforts to recruit & retain postgraduate students.

- The information contained within the placemats presented was based on information present within Irish & international business schools' information pages of post-graduate offerings. The limitations in this are that it's already information that others have thought of. Being able to gather data specific to a University, School, or programme within the school and present that data as a "new" branch of information could present interesting results in student interest.

- Although the conversations surrounding the information contained on each placemat was constructive in understanding the information needs of students it also relied on the imagination of students to see past the information that was already being presented to them and think of a more desirable or optimal way for that information to be presented or indeed other information in the same vein that would be more useful or

impactful to them. Though it did result in numerous conversations surrounding the presentation of materials and how to best optimise the information included, being able to present similar information in different ways within one interview might present a more objective answer in how best to present said information.

3.6: Summary

The overall approach to the research has been outlined within this chapter. A case study strategy was employed to answer a specific research objective and three research questions shown at the beginning of this chapter, which provided a focus for the research effort and allowed for a more informed process of deciding on the research strategy and protocol. The case context of this research was also included and discussed within this chapter.

The data collection methods used are also described within this chapter, outlining the utilisation of data placemats as a primary tool to be used alongside individual interviews to encourage discussions around specific points of information informed by numerous sources. The data gathered through these interviews was analysed through a combined effort of coding the answers of individuals, as well as constant comparisons being made throughout the analysis of the gathered data.

A brief summary of the gaps in research & potential continued efforts is also included at the end of this chapter.

The findings of this research are discussed at length within chapter 4, where each research question is answered on a placemat-by-placemat basis.

Chapter 4: Data Gathering & Analysis

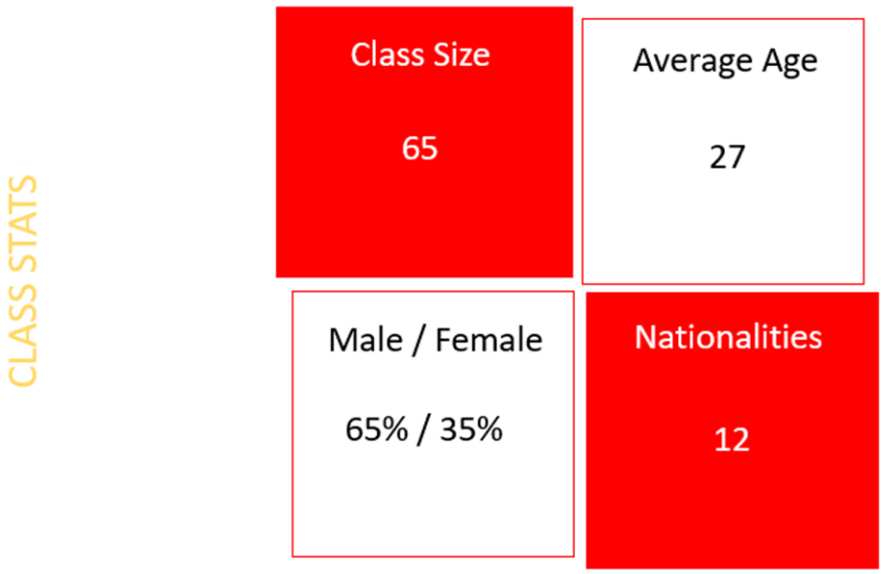
4.0: Introduction

This chapter presents a breakdown of the data analysis conducted across the 34 interviews conducted during the research. The 34 interviewees are categorised in three groups, as follows: (i) final year business undergraduate students (*prospective postgraduate students*), (ii) current business postgraduate students, and (iii) faculty involved in postgraduate programme support or in postgraduate student recruitment. The analysis is organised around each of the data placemats, with insights presented for each research question. The analysis of the observations for each data placement also lends itself to stating a design principle to better meet the information needs of prospective postgraduate students.

4.1: Placemat Analysis

4.1.1: Class Stats

Figure 11: Class Stats Placemat



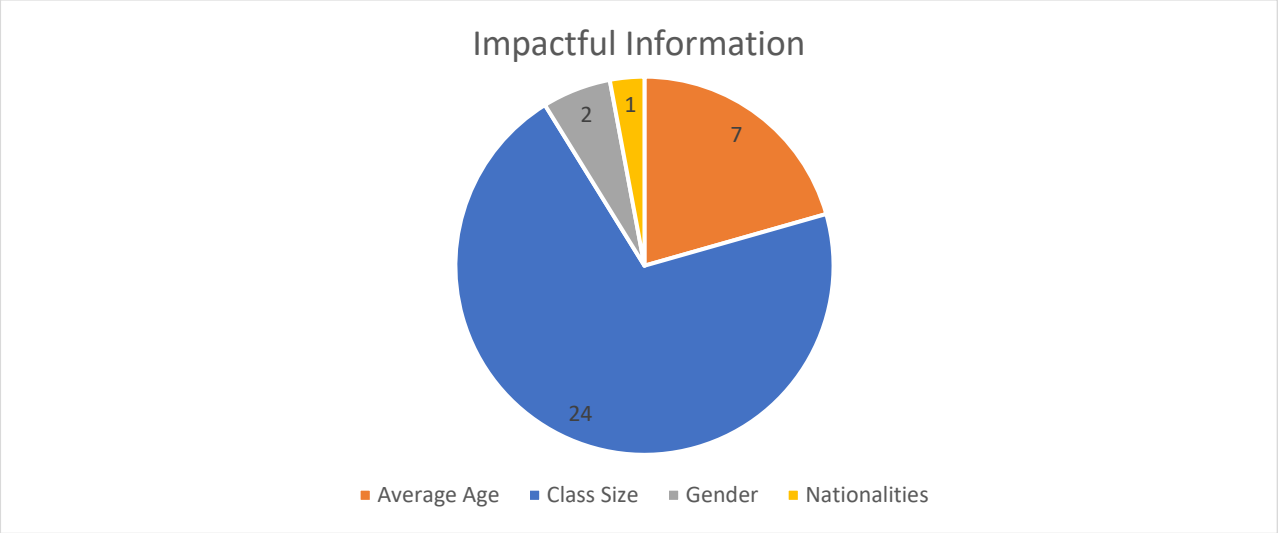
Sample Masters Programme in ABC.

The class stats data placemat is the first of 9 presented to all individuals interviewed. It consists of information on hypothetical class make-up with the class size, average age of students, the male to female split and the average number of nationalities enrolled in the course included. The idea behind this placemat was to investigate whether prospective students had any modicum of interest in seeing the breakdown of their potential classmates. At a base level, the class stats placemat is the gauge the student's interest in the social aspect of a postgraduate learning environment. This placemat is informed by speculated social structural wants of postgraduate students, as a litmus test of whether the information needs of prospective students might also include the social dynamics of a programme.

4.2.1.1: Overall Picture

Out of the 34 individuals interviewed there was a relatively solid consensus on the most important information contained in the class breakdown. 71% of all interviewees stated that the class size was the most impactful piece of information contained in the class stats placemat.

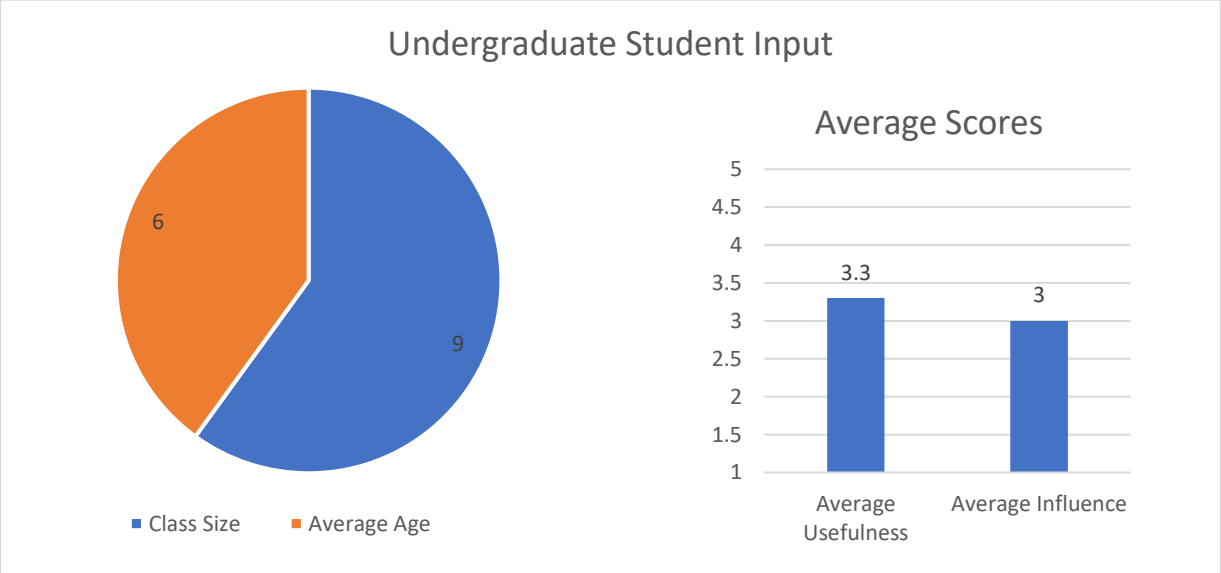
Figure: Class Stats - Overall Picture



4.1.1.2: Prospective Postgraduate Students

The majority of Undergraduate students found that the information contained within the class stats placemat would have little to no influence on them, with most students reiterating in one way or another the idea that "It doesn't hurt to have it there, but it wouldn't make a difference to me who is in the class or what age they are" – Interviewee 4. This is reinforced by the average of usefulness on this information being 3.3 out of 5, and the influence of it being 3 out of 5. Out of the 15 students interviewed, 9 stated that class size would be the most influential, with the other 6 stating that the average age in a class would be the most influential in a class make-up.

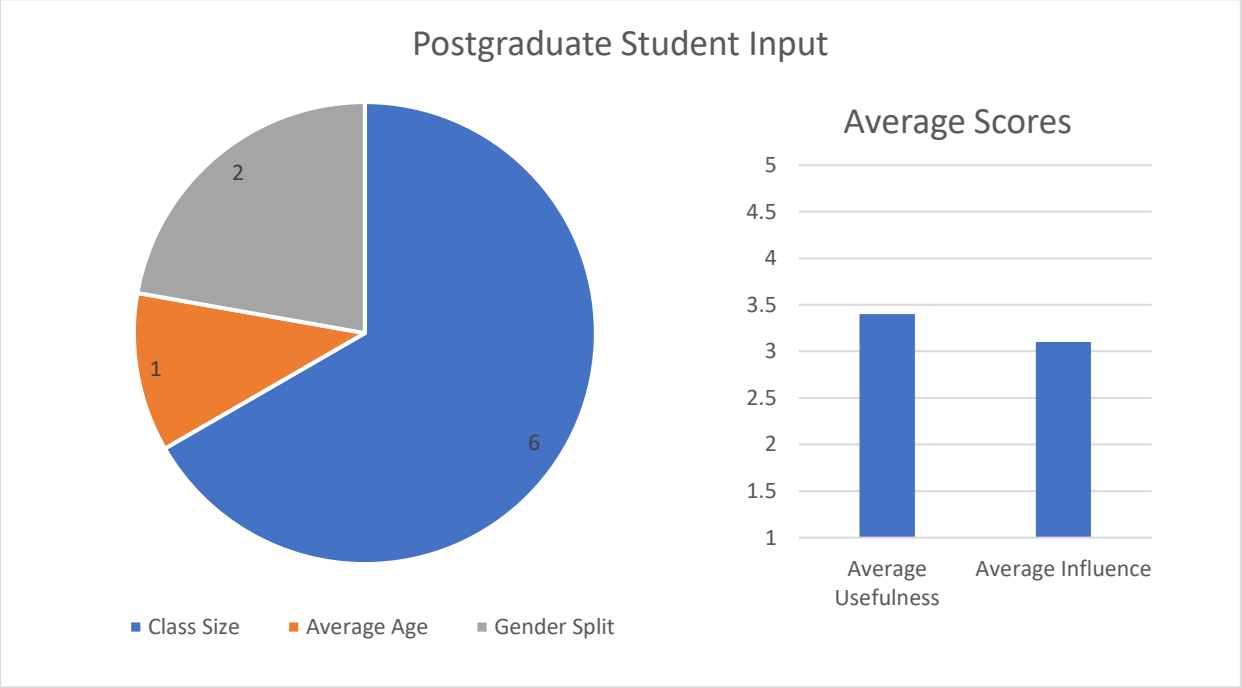
Figure 12: Class Stats - Undergraduate Input



4.1.1.3: Postgraduate Students

The postgraduate students interviewed held the same line of thinking as the undergraduates interviewed, with only a slight deviation in the average usefulness and average impact of the "Class Stats" placemat – most reiterating similar lines of thinking in that the class makeup would have little to no influence on them, except the class size "to see that it wouldn't be a similar environment to an undergraduate, and that lecturers would be able to give more time to students in a masters' class" – Postgraduate interviewee 3. The average usefulness was scored at 3.4 by the postgraduate students, with influence rated at 3.1. Class size was found to be the most impactful piece of information contained for the postgraduate students – with 6 of the 9 interviewees stating it as such. Of the remaining 3 – 1 stated that average age would be the most impactful, and two others stated that the gender split of a class would be the most impactful.

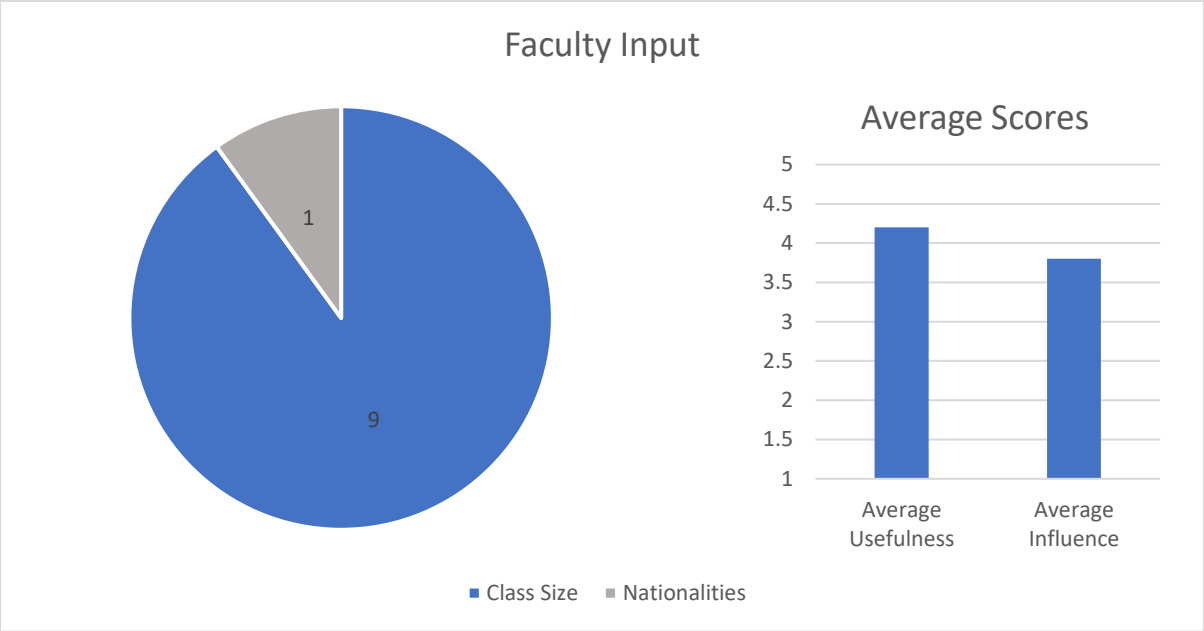
Figure 13: Class Stats - Postgraduate Input



4.1.1.4: Faculty

Of the 9 faculty members interviewed the majority consensus was that the class stats would be a largely beneficial piece of information for prospective students to see about a postgraduate offering, giving it a 4.25 average for usefulness, and a 4 average for the influence it would have over an individual's decision-making process when deciding between postgraduate offerings.

Figure 14: Class Stats - Faculty Input



4.1.1.5: Preliminary Guidelines

Given the low score in usefulness and influence that the "Class Stats" placemat achieved, the information contained within it should not be classified as a primary need for prospective students. However – if pursuing the route of including information similar to, or the same as the information contained within the placemat above, it's important to note that the Average Age and Class size are the two most prominent important pieces of information for prospective students within the study.

On top of this – it was pointed out during the interview process that the placemat itself should be more considerate of EDI. For example – one faculty member pointed out that the gender split contained within the placemat would not be inclusive of all groups within the university, and that the inclusion of nationalities would have to be more thought out as to the purpose of its inclusion, and the phrasing of the information contained.

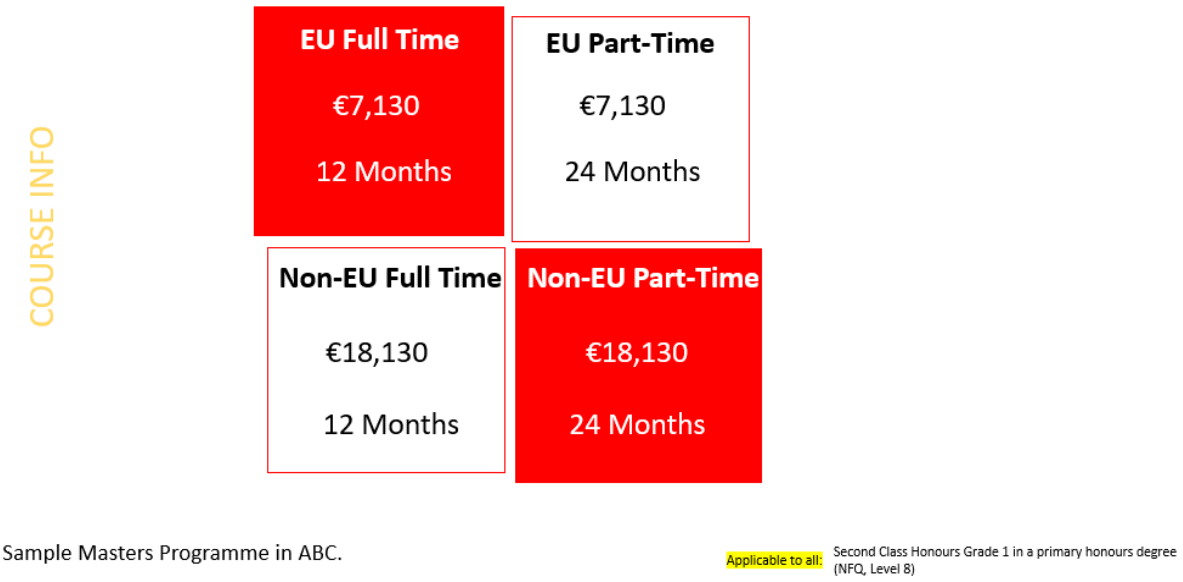
4.1.1.5: Findings

Table 11: Class Stats - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	Initial findings indicate that the information needs of students are not tied to the social make-up of a class.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The differences in perceived value of information between prospective + current postgraduate students and faculty members is apparent in the feedback received on the class stats data placemat. Disparities in actual value & influence values between the two groups and most impactful information indicate this.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	A high-level design guideline can be drafted from this feedback – class make-up contained in the class stats placemat is not an information need or want of students, and therefore it should not be prioritised as a selling point of a programme. The language used surrounding the class make-up of a course should also be more informed by EDI standards for the purpose of inclusivity to all individuals viewing.

4.1.2: Course Info

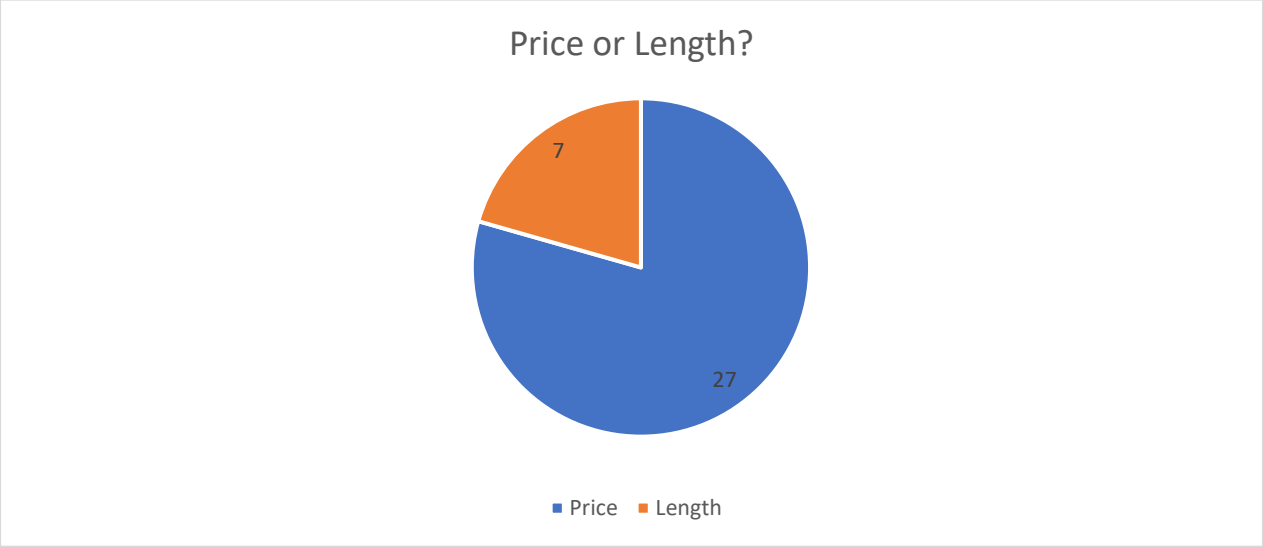
Figure 15: Course Info Placemat



The "Course Info" placemat consists of the price & length of a potential programme. This placemat is being used to gauge the importance of the price and length of a course for a prospective student, however, because of how common this information already is – it was created as a way to encourage discussion surrounding these "barriers to entry" and discover the nuances around this information need. This placemat is informed by the two most commonly occurring information points across most information pages investigated during this research – the length and the cost of a programme. The information included is informed by the fees and length of time required to complete a taught masters programme in an Irish HEI.

4.1.2.1: Overall Picture

Figure 16: Course Info - Overall Picture

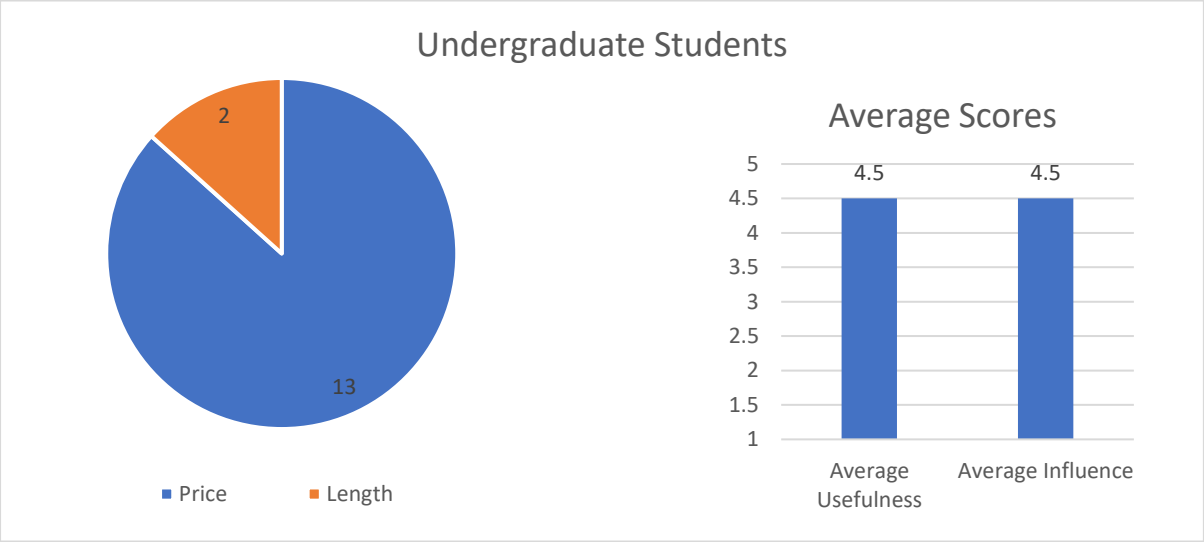


Of the 34 interviewed a healthy majority agreed that the price of a postgraduate offering is the most important barrier when considering enrolling in a postgraduate programme. Many citing that the price difference between multiple institutions as being a large factor that was considered when researching postgraduate offerings in Ireland – which is compounded "when the information provided across different universities isn't doing a good job of selling any particular course it's really just a case of what's cheaper" – Undergraduate interviewee 1.

4.1.2.2: Undergraduate Students

The undergraduate cohort consisted of 15 – and of these, 13 agreed that the price of an offering was the most important and impactful piece of information to them from the course info placemat. A consistent line of reasoning was that "If you're going to do a masters or something else, you generally know that it's going to be at least a full year of your time gone. Seeing the price of it helps someone decide whether it's worth it or not" – Undergraduate Interviewee 8. The average usefulness of this placemat was rated as a 4.5 and the influence on students was also rated at 4.5.

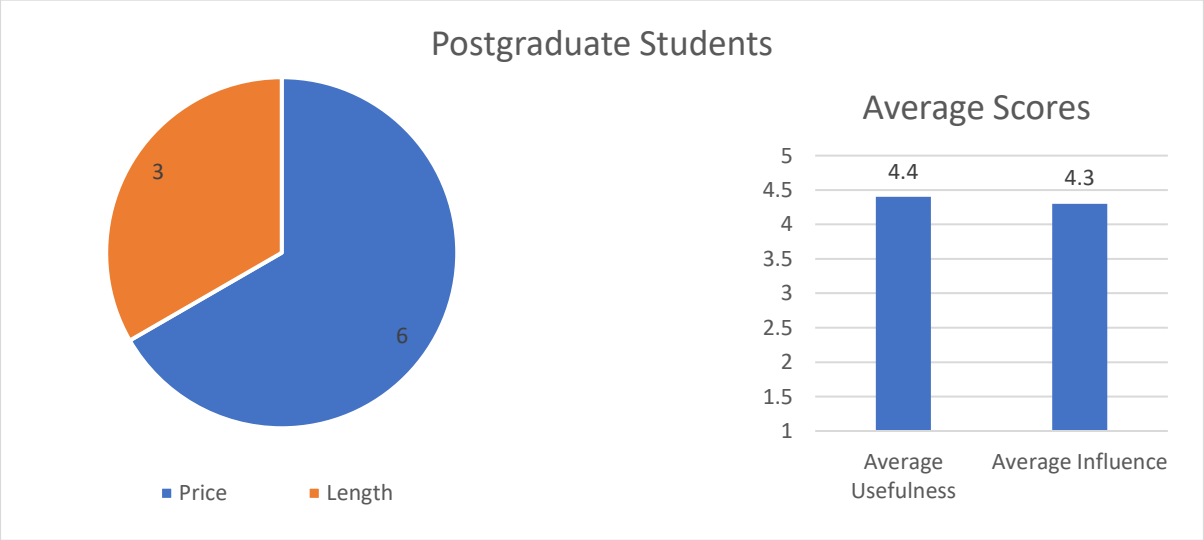
Figure 17: Course Info - Undergraduate Student Perspective



4.1.2.3: Postgraduate Students

Less decisive than the undergraduate cohort – the postgraduate students were split 6 – 3 in favour of price being the most impactful piece of information contained in the "Course Info" placemat. The 6 students who decided that price was the most impactful to them reiterated similar sentiments as the undergraduates before them. However, the 3 postgraduates who found the length of a course to be the most impactful came to that conclusion through the thought process of "it's going to be expensive anyway" – Postgraduate interviewee 8. The Usefulness and Influence scores were very close, with the Usefulness scoring 4.4 and Influence scoring 4.3.

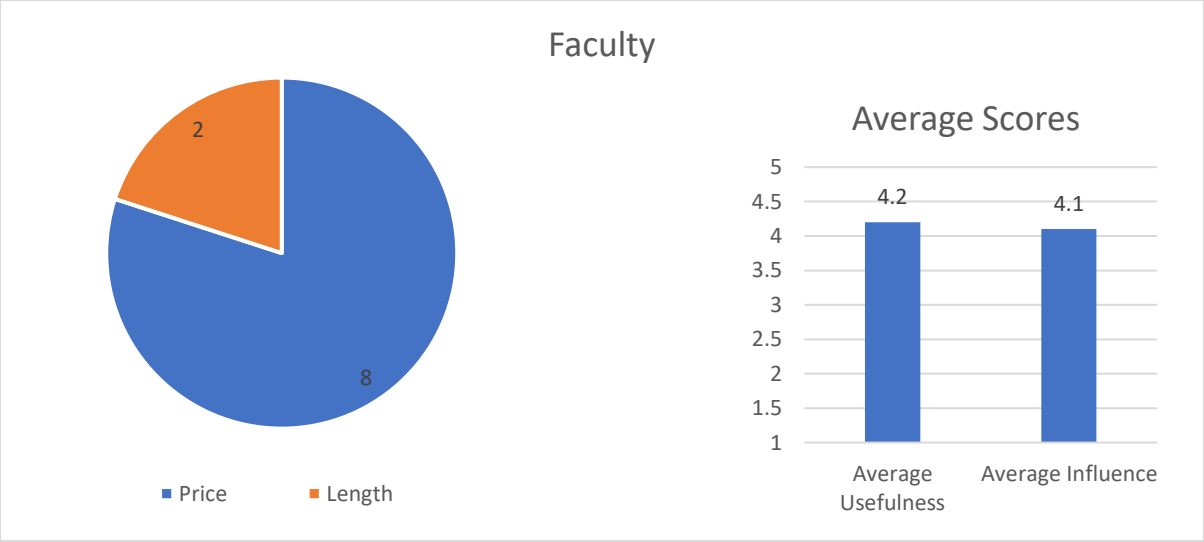
Figure 18: Course Info – Postgraduate Student Perspective



4.1.2.4: Faculty

Of the 10 faculty members interviewed the majority consensus was that the price of a programme would be the most impactful piece of information for students to see about a postgraduate offering within the course info placemat, giving it a 4.2 average for usefulness, and a 4.1 average for the influence it would have over an individual's decision-making process when deciding between postgraduate offerings.

Figure 19: Course Info - Faculty Perspective



4.1.2.5: Preliminary Guidelines

The information contained within the "Course Info" placemat is common across all information pages viewed during the initial investigation into the information pages of third level institutions. As is apparent by the average usefulness and influence given to the information contained on this placemat, it is indeed a primary piece of information required by prospective students. The preliminary design guidelines for including this information on recruitment information pages is that the information contained required more detail. For example, having the potential funding options and payment schedules as detail for the fees of a programme would be beneficial to a prospective student.

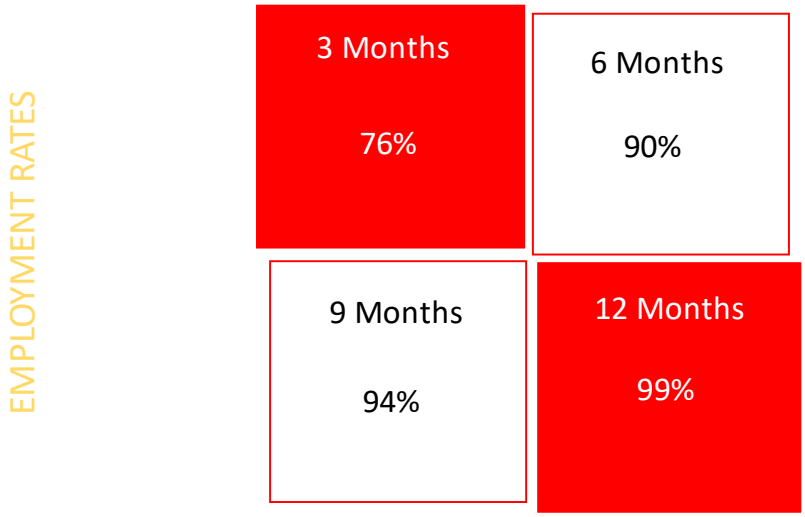
4.1.2.6: Findings

Table 12: Course Info - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	Initial findings indicate that students need to know the barriers to entry – Price + Length for their decision-making process of enrolling in a postgraduate offering or not.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The differences in perceived value of information between prospective + current postgraduate students and faculty members non-apparent in the feedback received on the course info data placemat. The values of average usefulness and average influence are very close across all three cohorts within the course info placemat.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	Design guidelines for including this information are based on the feedback of students and what they need to see – i.e., full costs associated with programmes, and any and all alternative payment methods available – including scholarships or broken out payment options.

4.1.3: Employment Rates

Figure 20: Employment Rates Placemat



Sample Masters Programme in ABC.

4.1.3.1: Overall Picture

The "Employment Rates" placemat was the first placemat presented to the interviewees that did not contain different data sets. All quadrants of the placemat contained the same information across different lengths of times, i.e., the employment rates of students 3-12 months post-graduation from the Sample Masters Programme in ABC. Though simple in its presentation and concept, it is primarily used to gauge the importance of the overall employment rates achieved by a graduated class from a hypothetical programme. This placemat was informed by the speculated importance that it would hold for a prospective postgraduate student, but also through the various literature that cited the value of a postgraduate education being directly tied to its potential in advancing someone's career.

This placemat received one of the most positive responses from student interviewees in information that isn't commonly included across postgraduate information pages, lending credibility to its importance for students to be able to see it. However – it's important to note that the overall breakdown of the scores given by students is very divisive, with a high number rating the usefulness and influence of employment rates as very high, and a smaller number rating it as very low. The cohort of students, both undergraduate and postgraduate, who rated

it low mostly iterated the same points that “Seeing a class employment rate wouldn’t really have too much influence on me – because if someone is particularly driven then they will find a job regardless of how the rest of the class does” – Postgraduate Interviewee 7.

On the other hand – the cohort of students who found the employment rates as a very important piece of information mostly held a line of thinking that “the employment rate would be great to see if the qualification is actually worth something in the working world. If it’s very high, then you can have some bit of reassurance that the program you’re going for is worth the time and money” – Undergraduate interviewee 3.

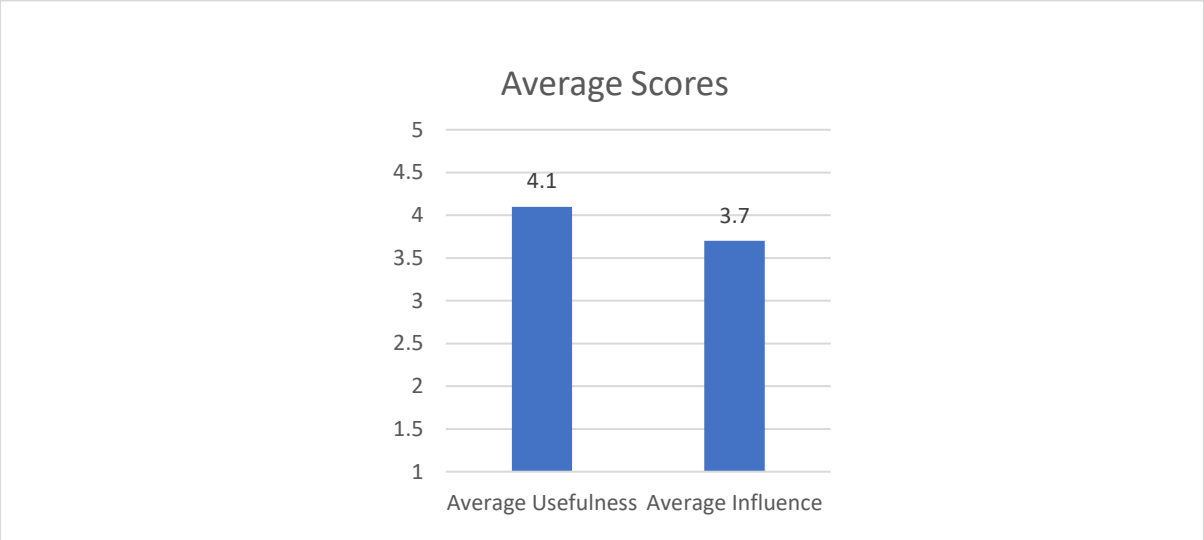
A middle ground was also found during the interviews – where interviewees within the student and faculty cohorts found the missing context of the placemat. A question of “but what job?” cropped up time after time – enforcing the need for the next placemat to be presented.

The missing context of the data included is intentional – in order to encourage conversation around the influence of employment rates on students.

4.1.3.2: Undergraduate Students

As stated above, the usefulness and influence scored relatively high amongst the student cohort. The scores awarded by each interviewee were either a very high score (4+) or on the very low end (=<2). The conversation that came about as a result of this placemat was extremely informative, the nuance of the information is important – i.e., high level employment percentages are not very useful without the context of roles attached to them. The undergraduate cohort of 15 interviewees rated the usefulness of the employment rates as a 4.1, and the influence at a lower 3.7 given the missing context.

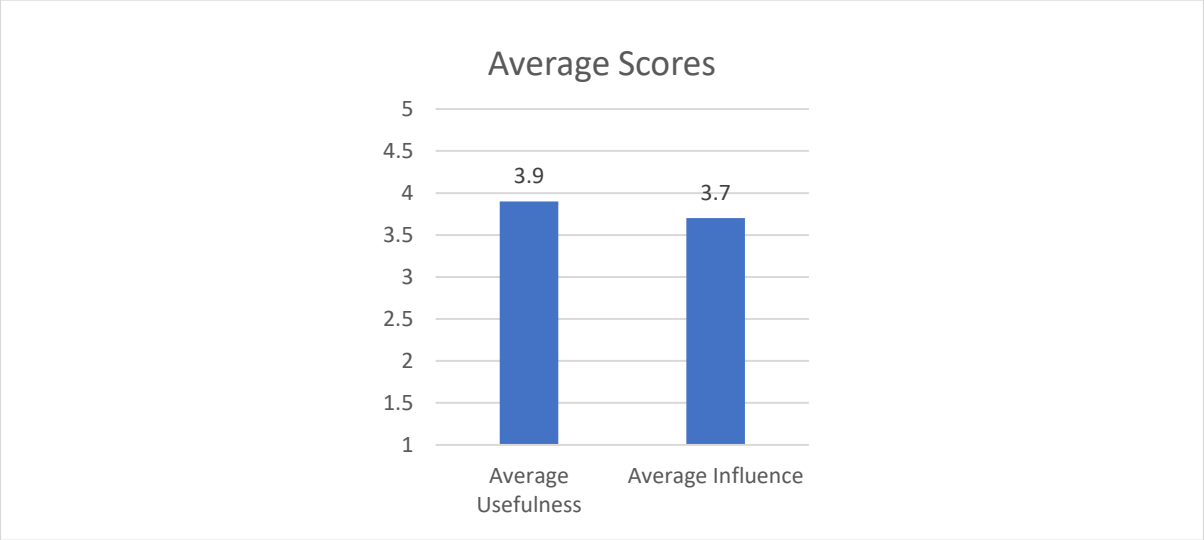
Figure 21: Employment Rates - Undergraduate Perspective



4.1.3.3: Postgraduate Students

A similar story occurred throughout the interviews with the postgraduate student cohort as what happened during the interviews with the undergraduate students. The opinions of the group was heavily split – a high number of students giving the usefulness and influence high scores, and a smaller cohort giving them very low scores. Again – the students awarding a low score following the same line of thinking as the undergraduates who did the same – "it doesn't matter to me what the average employment rate of everyone else is" – postgraduate interviewee 9. The Average usefulness received a 3.9, and the average influence received a 3.7. It's important to note that the median and mode of usefulness + influence scored a 4.

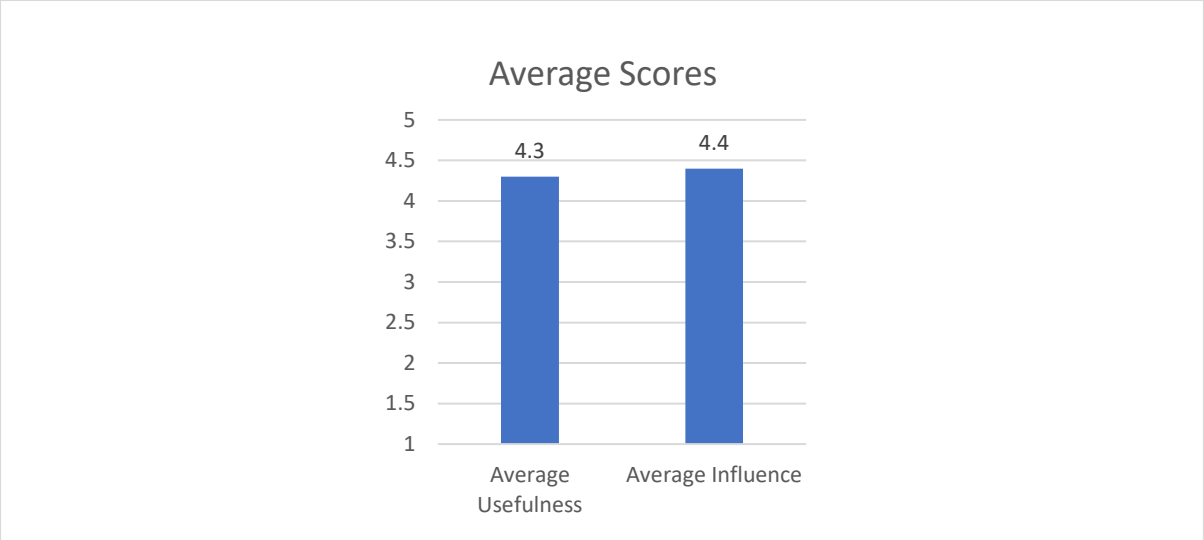
Figure 22: Employment Rates - Postgraduate Perspective



4.1.3.4: Faculty

For the majority of interviewees within the faculty cohort there was a positive reaction to the inclusion of employment rates within the information pages of postgraduate programs. The Average usefulness of it was scored at a 4.3, with the influence being scored at a 4.4. The conversation surrounding this placemat often referred to the context of the data included – repeating the same points already pointed out by the student cohorts.

Figure 23: Employment Rates - Faculty Perspective



4.1.3.5: Preliminary Guidelines

At first glance the returned scores given for the employment rate placemat are quite favourable. However – the discussions surrounding the placemat indicated that the figures themselves – though useful – were not enough and required a lower-level view of the data. Nuance behind the information is required. Questions such as “But what jobs are those employment rates in?” and comments like “But half of those could be unpaid internships somewhere” really bring to light the required detail within this placemat.

The guidelines for this information are; The information should have context. It’s a very valuable set of information according to the responses and conversations from the prospective student cohort, so long as it is given the right context. A similar conversation was had within the next placemat included. A combination of these two placemats would be close to an ideal scenario for the inclusion of this data need.

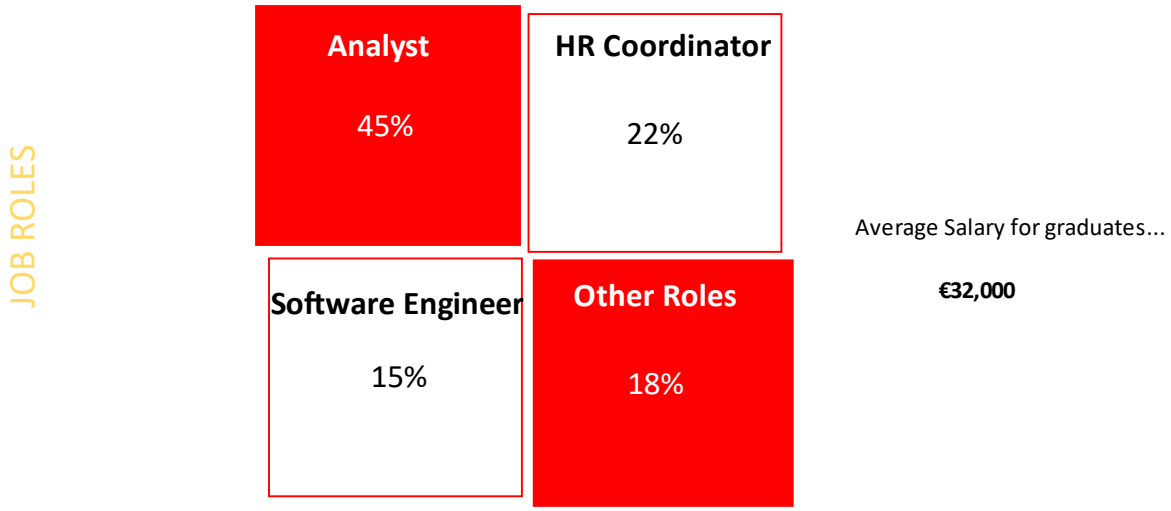
4.1.3.6: Findings

Table 13: Employment Rates - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	The response to the employment rates of students' post-graduation was mostly positive. If given context and nuance behind the figures it would prove to be an impactful piece of information for prospective students.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The differences in perceived value of information between prospective + current postgraduate students and faculty members very close from the feedback received on the employment rates data placemat. The values of average usefulness and average influence are close across all three cohorts within the course info placemat, and all three repeated similar points to consider if it was to be used on university information pages.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	The initial response to this placemat indicates that future iterations of the employment rate placemat need to include the context of the data, and any nuance behind it – i.e., the roles that graduates of a given course acquire, not just the employment rates.

4.1.4: Roles

Figure 24: Roles Placemat

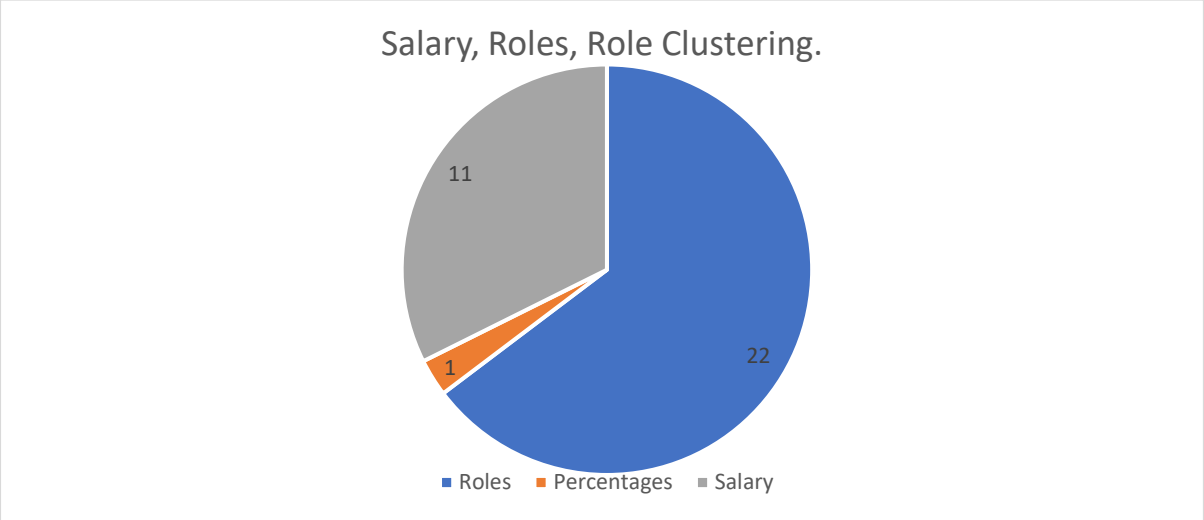


Sample Masters Programme in ABC.

The "Roles" data placemat is intended to show the most common roles that graduates of the sample masters programme in ABC acquire, the average percentage of any given class that acquires said role, and the average graduate salary from prior graduate cohorts. The intent of this placemat is to add context to the prior "Employment Rates" placemat and see if it makes an impact in student interest, but also to gauge the reaction to being able to see the average salary of graduates from the programme. This placemat, like the former, is also informed through various literature citing the importance of career progression from postgraduate education, but also from the curiosity of the researcher as to whether a lower-level view of the graduation prospects of a prospective postgraduate student through any given programme is desirable information.

4.1.4.1: Overall Picture

Figure 25: Roles - Overall Picture

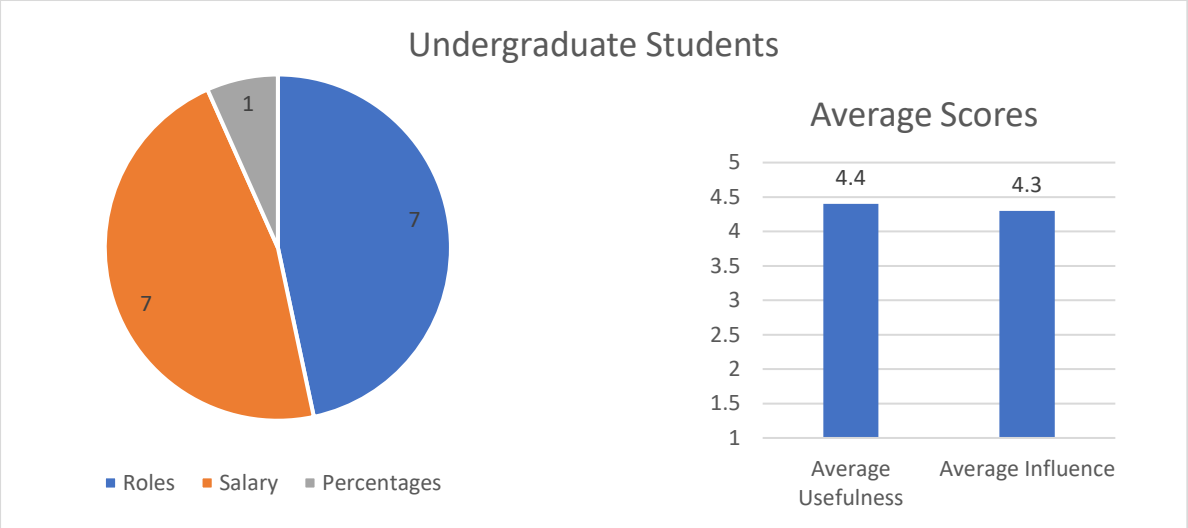


34 interviewees – though the majority (22) of interviewees agreed that seeing the role would be the most impactful in the context of information needs of students, there was also a sizeable amount (11) who – mostly consisting of the undergraduate cohort – felt that seeing the expected salary was the most important piece of information to them in the context of potential outcomes from a postgraduate programme. One individual believed that seeing the clustering of job roles, or the percentages of students that acquire specific roles would be the most important information to them.

4.1.4.2: Undergraduate Students

The usefulness and influence scored very high amongst the student cohort. As stated within the "Employment Rates" placemat analysis, the nuance that this information provides is very useful to the undergraduate cohort. Of 15 interviewees the usefulness of the information contained on this placemat was rated as a 4.4, and the influence at a very close 4.3. Salary & Roles were tied as the most impactful piece of information with 7 students each.

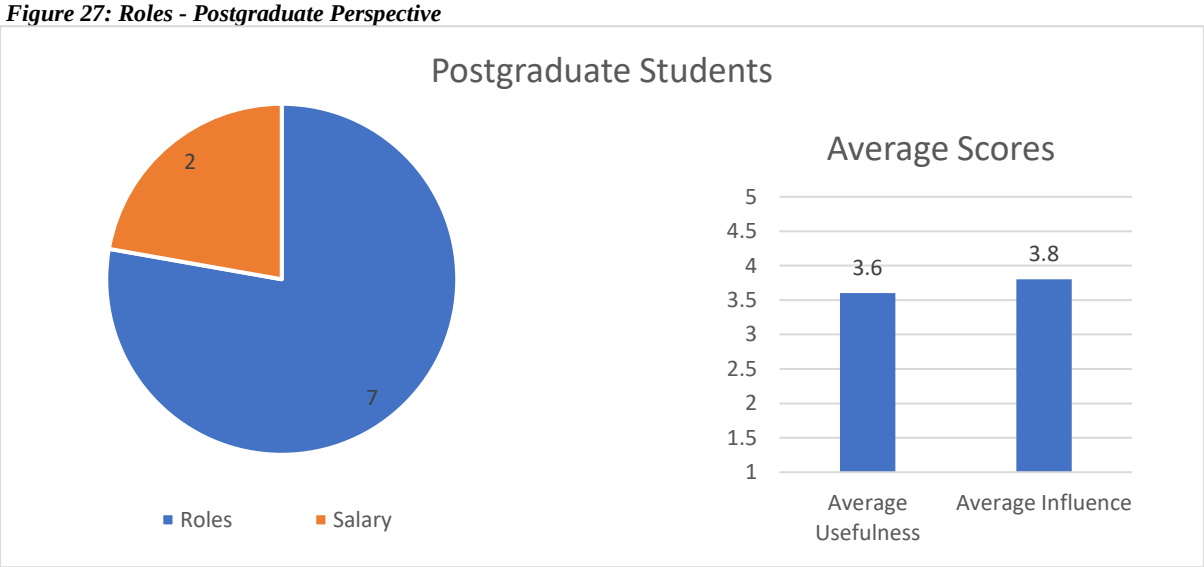
Figure 26: Roles - Undergraduate Perspective



4.1.4.3: Postgraduate Students

A similar mindset was revealed during the presentation of this placemat as what was revealed during the "Employment Rates" placemat. Following a similar pattern with the scores given, though given a lower score overall, the general consensus of the postgraduate cohort was that the roles and salary would indeed have quite an impact on them, however, a smaller number were of the opinion – similar to that given on the employment rates placemat – that the roles and salary acquired by "other people would not have an impact or influence on my own abilities in getting what role or salary I want" – Postgraduate Interviewee 9. Overall, this placemat received an average usefulness rating of 3.6, and an average influence rating of 3.8 from the postgraduate student cohort.

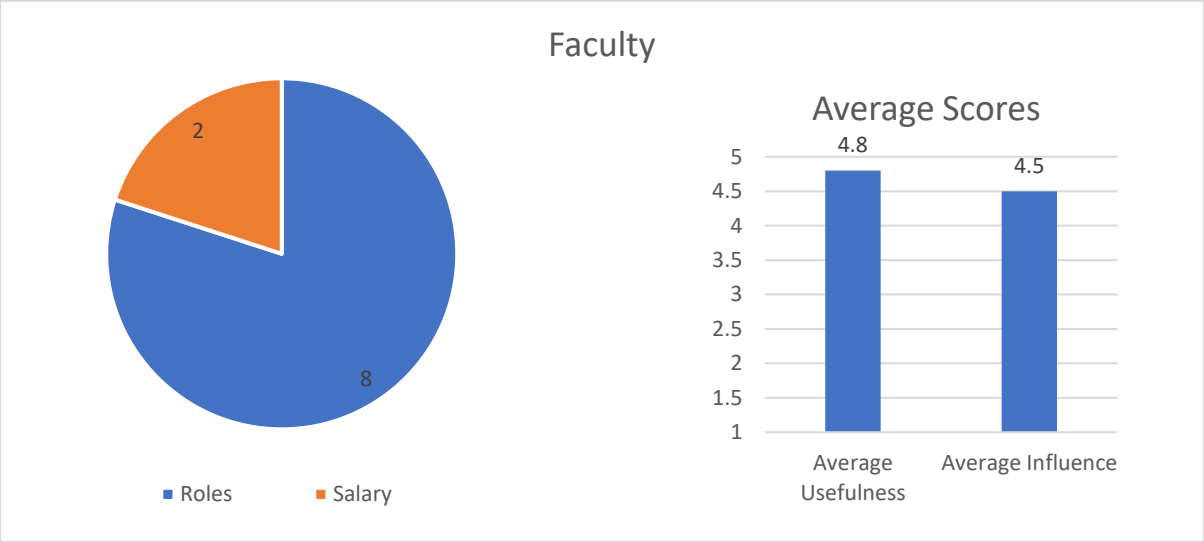
Figure 27: Roles - Postgraduate Perspective



4.1.4.4: Faculty

The highest rated placemat amongst the faculty cohort – with usefulness scoring at a 4.8, and influence at a 4.5. The general consensus was that the information presented – particularly being able to see roles (8 of 10) – would have a high value for prospective students as it gives them a "brief idea of what they can actually get out of the program" – faculty interviewee 3.

Figure 28: Roles - Faculty Perspective



4.1.4.5: Preliminary Guidelines

As stated within the preliminary guidelines of the "Employment Rates" data placemat – the nuance required within that is mostly contained within this, the "Roles" placemat. Having been given a higher score in both usefulness and influence, the information contained within this placemat is considered a primary need for the prospective postgraduate students interviewed. If combined with the "Employment Rates" placemat, the direct value of the programme that they would be enrolling into would be evident within the information given. As most prospective students reiterated similar sentiments to each other in that "seeing the employment rates and what jobs you can get are a massive consideration for someone who's looking at doing a postgrad" – Undergraduate student 9.

Therefore – the guidelines for this information are that the two placemats of "Employment Rates" & "Roles" should be melded into one cohesive, low-level view of employability of a specific programme.

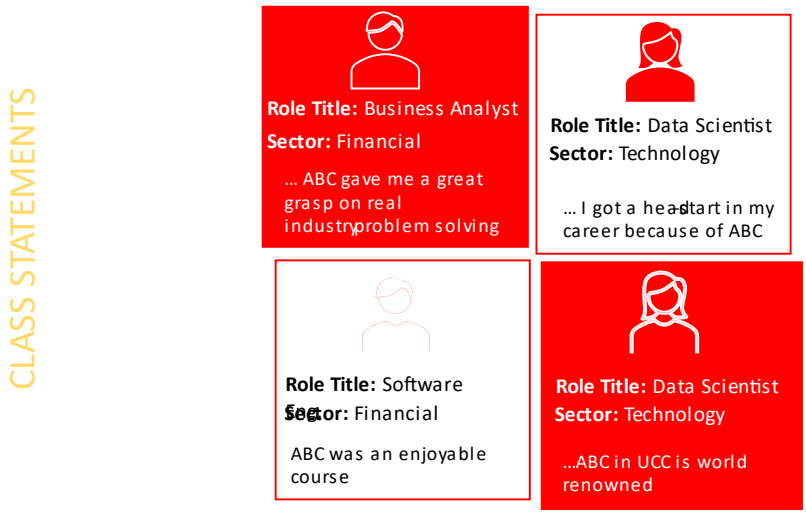
4.1.4.6: Findings

Table 14: Roles - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	The response to this placemat indicates that salary + transparency of potential roles are high value information points for prospective students.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The differences in perceived values between prospective and postgraduate students is relatively obvious from the results of this placemat. However – the perceived usefulness and influence between the undergraduate and faculty cohorts are close, with a very high score being given to both areas. Roles was consistently the most impactful piece of information contained within the placemat, followed by salary figures.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	The information contained within this placemat is perceived as highly valuable by both faculty and prospective postgraduate students. More specific information surrounding roles such as location were pointed out as adding value to the information.

4.1.5: Testimonies

Figure 29: Testimonies Placemat



Sample Masters Programme in ABC.

4.1.5.1: Overall Picture

The "Testimonies" placemat is the first of the placemats that required a description of the desired presentation. The description that was given to all interviewees was that the quadrants of the placemats were only intended as "links" to -ideally- video formatted student testimonies, of students who had graduated from the sample masters programme in ABC within the last 2-3 years, with information on their prior experience or education, their experiences during the masters programme, and their journey post-graduation. As the nuance of this isn't directly apparent from the presentation of the placemat, it was necessary to inform each interviewee before a response could be collected. The intended purpose of this placemat was to encourage conversation around a number of key areas, primarily the weight that prospective students would place on graduate testimonies, the trust that they would place in the information contained within these testimonies and also whether or not it would be an influencing factor in their decision-making process around postgraduate enrolment – or if it would be unconvincing. This placemat was informed from the presence of student testimonies across numerous HEI information pages for postgraduate offerings and used as a tool to passively investigate the

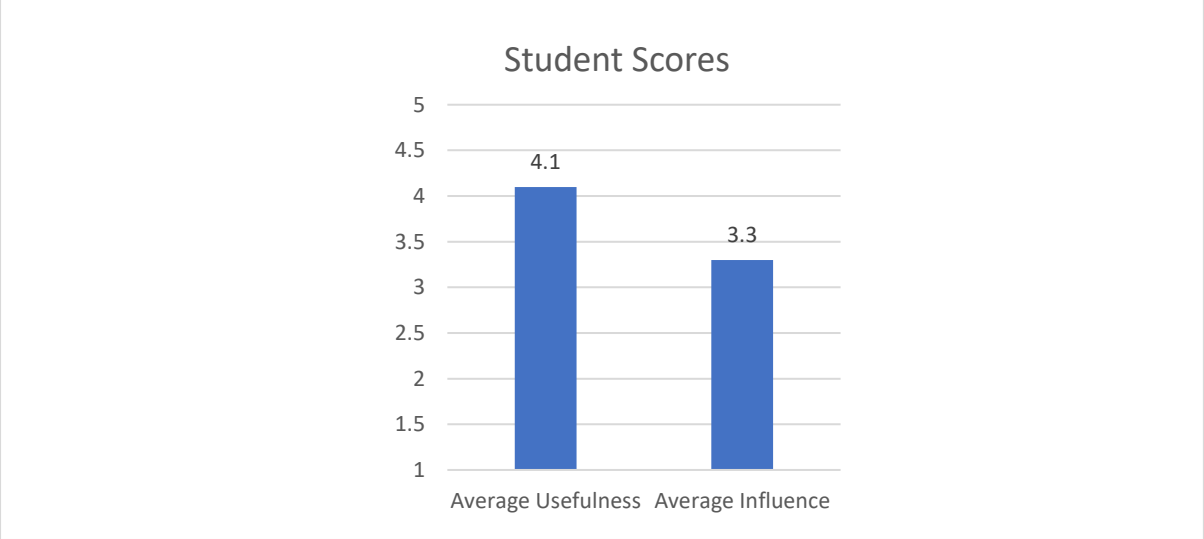
topic of trust around non data-driven information included in the information materials utilised by HEIs.

The student testimony placemat received a very mixed response from the student cohorts and the faculty cohort. Concerns were raised by students around the legitimacy of any student testimonies included on any official university platform.

4.1.5.2: Undergraduate Students

Of the 15 undergraduates interviewed the majority felt that being able to have a past student testimony would be a useful resource when researching potential postgraduate offerings – however, there was a sentiment of distrust that was repeated within the postgraduate cohort of "if it's on an official university website it's probably not going to be honest if the student didn't feel like the course was worthwhile." – undergraduate interviewee 6. The undergraduate cohort scored this potential information at 4.1 for usefulness (because of the value gain in hearing of others' career paths) and 3.3 for influence – based on the perceived bias in university information pages.

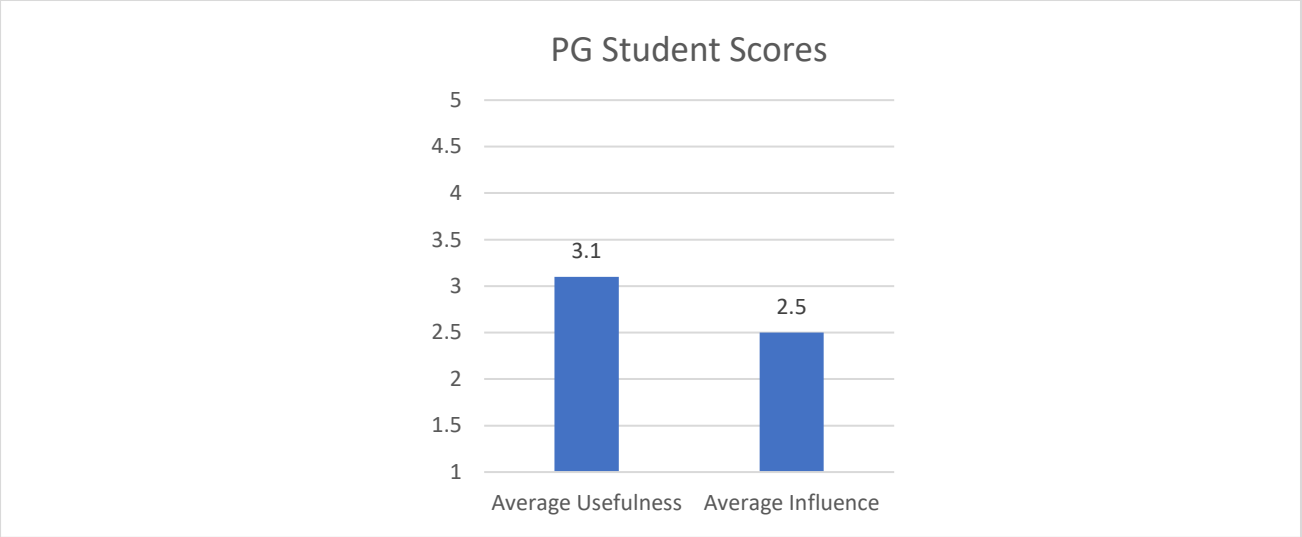
Figure 30: Testimonies - Undergraduate Perspective



4.1.5.3: Postgraduate Students

Similar to the undergraduate cohort of students, the postgraduate interviewees were slightly more critical of the concept of student testimonies being included on a HEI information page for a postgraduate programme. This is due to the belief that no negative view of a programme would be allowed in one of said testimonies. The average usefulness was rated at 3.1, and the influence was rated at a 2.5.

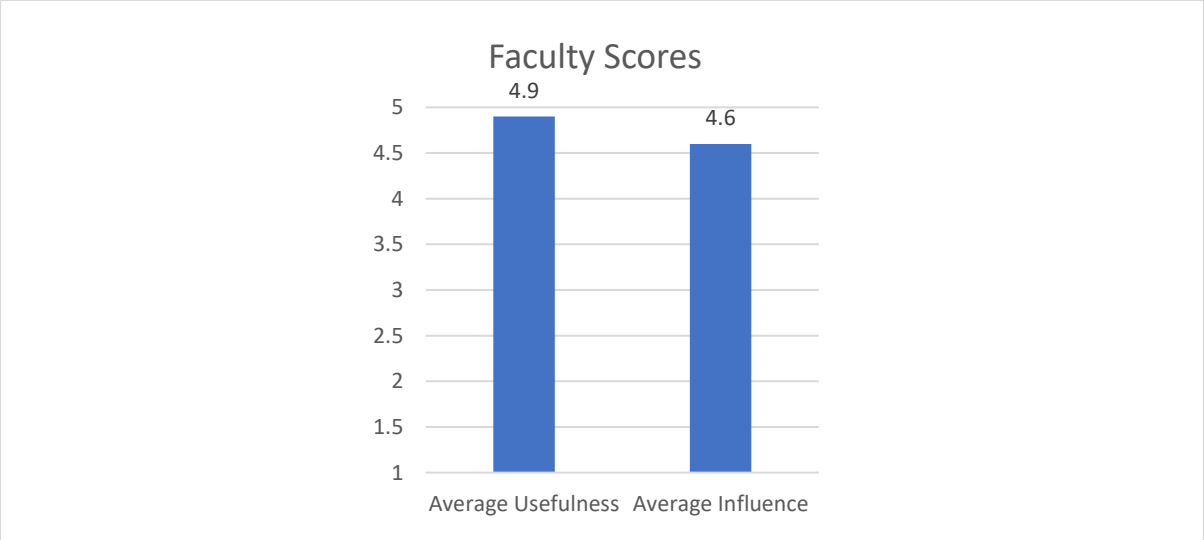
Figure 31: Testimonies - Postgraduate Perspective



4.1.5.4: Faculty

Faculty interviewees were very keen on the idea of student testimonies being included as an information need of prospective students. The perceived value and influence of testimonies from faculty interviewees is significantly higher than either of the student cohorts – with Usefulness at a 4.9 and influence at 4.6. Student testimonies are rated as the highest value information need of prospective students according to the faculty interviewees.

Figure 32: Testimonies - Faculty Perspective



4.1.5.5: Preliminary Guidelines

The conversations arising from the presentation of the "Student Testimonies" placemat were massively beneficial to understanding the prospective postgraduate student 'wants' tied to the endorsement of past students for a specific programme. The general consensus was that the practice of including student endorsements & testimonies on information pages for programmes is "only ever positive, and it doesn't give people a real idea of the potential negatives of that postgrad".

Many conversations surrounding this opinion came out of the interviews conducted. Most undergraduate students stated that if the given testimonies and student endorsements were more honest and transparent that they would become a valuable decision-making asset for a prospective student. On top of this – the testimonies given would have to be relatively current, given within the last 2 to 3 years.

A conversation surrounding the benefits of providing contact information for past students also came about with a number of interviewees. Most of these students reiterated similar sentiments that having a conversation with a past graduate would provide much more

insightful and beneficial information for a prospective student, rather than a genericised student testimony video present on a website.

In short – the guidelines for student testimonials can be summarised as: provide more transparent testimonials, including potentially negative feedback such as workload to make the testimonies more trustworthy. Consider enrolling voluntary graduates to provide contact information (LinkedIn / Email) to be contacted by interested parties. Keep any testimonies as current as possible.

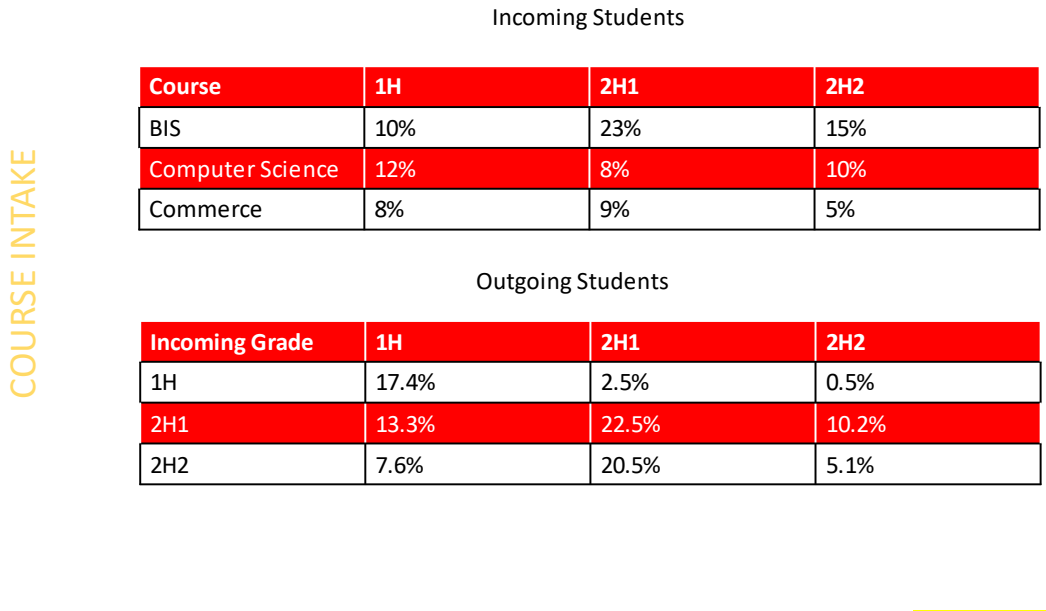
4.1.5.6: Findings

Table 15: Testimonies - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	The response to the student placemat is moderate within the student cohorts. Value is attributed to the idea of these testimonies based on indirect information such as potential career paths being included within them. The influence of including student testimonies is low due to the distrust of HEI honesty in including any negative perceptions within these testimonies.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The differences in perceived value of information between prospective + current postgraduate students and faculty is massively apparent within this placemat. The values of average usefulness and average influence are quite significant between the student + faculty groups.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	The response to this placemat was beneficial to the design guidelines that can be drafted. Honest testimonies are the ideal circumstance for the inclusion of student testimonials. There is also a want for contact details to past students so that prospective students can contact them directly for an “honest” evaluation of a programme.

4.1.6: Course Intake

Figure 33: Grades Placemat

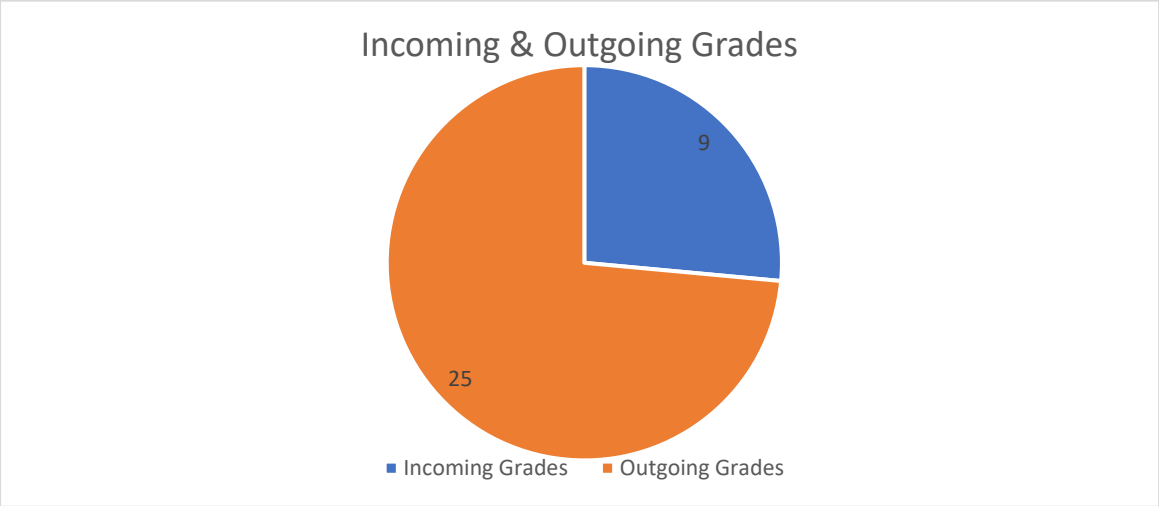


4.1.6.1: Overall Picture

The "Grades" placemat shows the incoming grade distribution of students based on the past 3 years, within the top 3 most common tributary bachelors' degrees that enrol within the sample master's programme in ABC. It also shows the outgoing grade distribution of students, compared to their incoming grades distributed over the prior 3 years. This placemat is in place to encourage a discussion surrounding how important or non-important grade transparency is to prospective students when considering enrolling in a postgraduate programme. This placemat was informed by numerous international universities including information regarding grades achieved by graduating classes within their information pages of postgraduate offerings, it's inclusion within the placemat experiment was primarily driven by the curiosity of the researcher into its importance and whether or not it would be impactful in any way.

Most interviewees, 26, deemed that the outgoing grades would have the most impact on a prospective student. 9 other interviewees said that seeing grade distribution of students who enrol in said programme would be the most impactful.

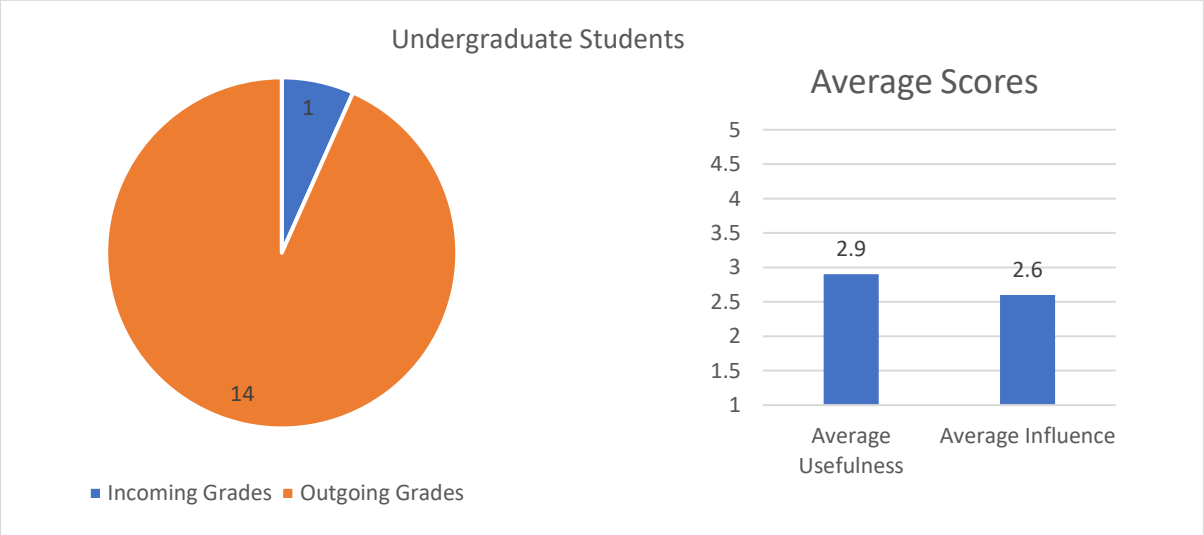
Figure 34: Grades - Overall Picture



4.1.6.2: Undergraduate Students

Of the undergraduate students that were interviewed, 14 stated that the outgoing grade distribution would have a higher impact on them compared to the incoming grade distributions. However, the usefulness and influence scored quite low on this placemat within both student cohorts, under the common idea that "the grade distribution wouldn't bother me too much because what grade I get is off my own work" – undergraduate interviewee 1. The usefulness of this placemat was scored at a 2.9, and the influence scored a 2.6 amongst the undergraduate student group.

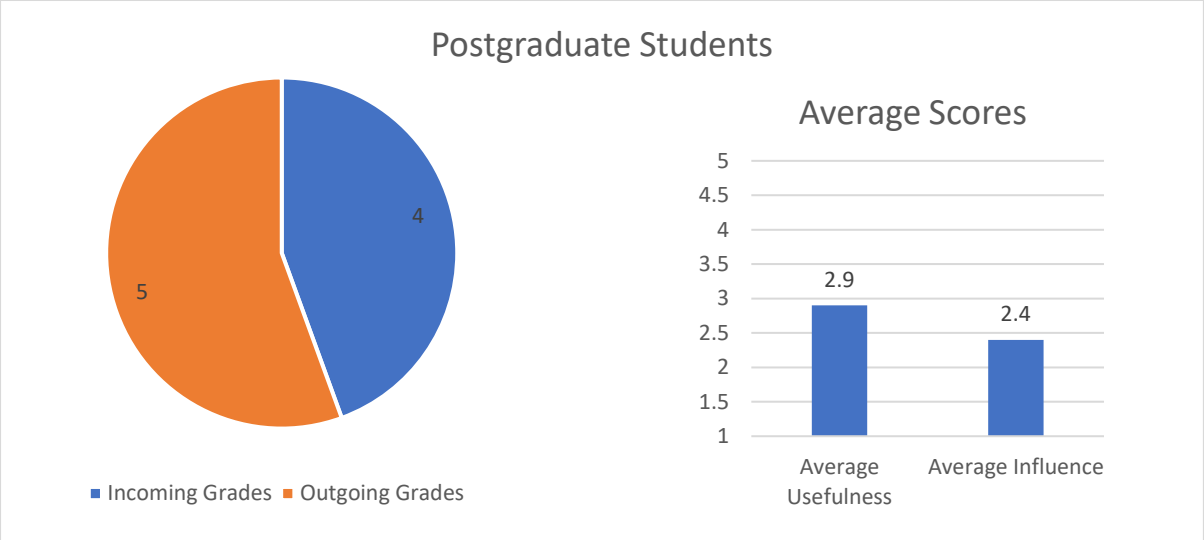
Figure 35: Grades - Undergraduate Perspective



4.1.6.3: Postgraduate Students

In a similar line of thinking as the undergraduates – the postgraduate cohort decided that the usefulness and influence of the information contained within the grade distribution placemat were quite low. A small majority also agreed that the outgoing grades would be the most impactful out of the two data sets contained in the placemat. Usefulness was equal to the undergraduate average at a 2.9, with influence scoring a lower 2.4.

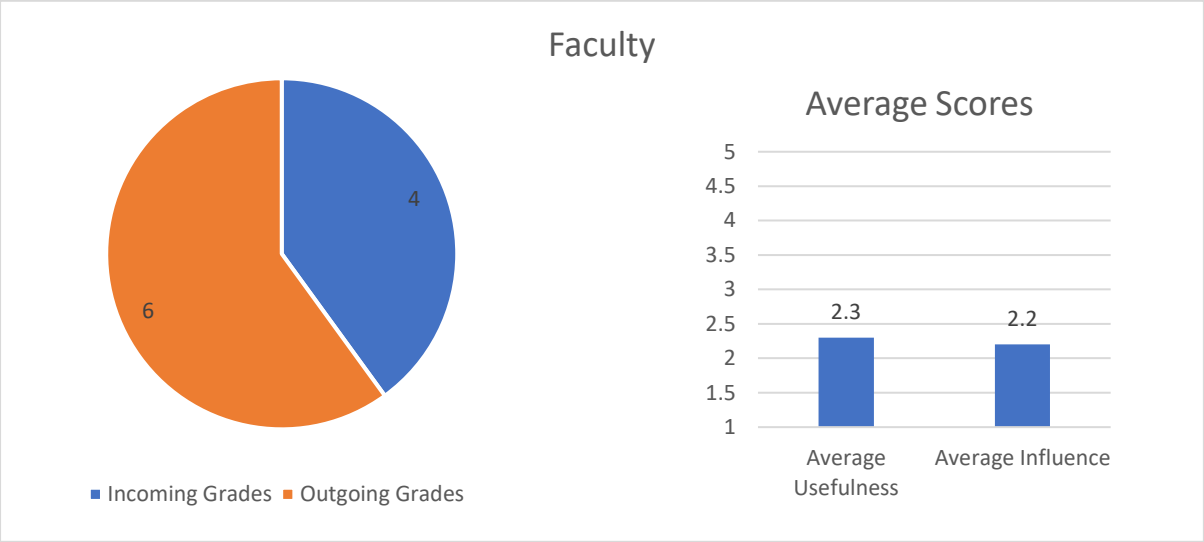
Figure 36: Grades - Postgraduate Perspective



4.1.6.4: Faculty

The faculty opinion of the grade distribution was much in line with both student groups. The usefulness and influence scored very low in comparison to other placemats – with usefulness being rated at 2.3 and influence at 2.2. The outgoing grades were deemed as the more impactful of the two data sets within the placemat once again.

Figure 37: Grades - Faculty Perspective



4.1.6.5: Preliminary Guidelines

Within the UCC student cohort – the "Grade Distribution" placemat wasn't given much interest. It can be seen as a tertiary information need of prospective students. The guidelines that can be gathered based on the feedback of prospective postgraduate student interviewees is that the inclusion of any grade distribution should be as simply presented as possible, with outgoing grades prioritised over incoming grade distribution. Within the groups interviewed there was no great need or want for this information expressed.

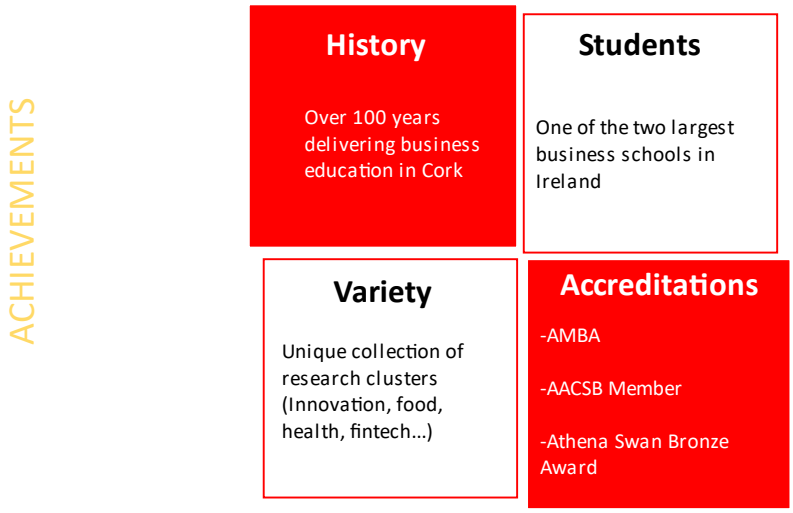
4.1.6.6: Findings

Table 16: Grades - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	The grade distribution of a programme appears to be non-important to students based on the feedback to this placemat. Both student groups rated it as one of the least useful & influential placemats in the interview.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The scores awarded by the faculty and student groups for the usefulness and influence of the grade distribution were all within the lowest given to any of the placemats within the interviews conducted. The faculty scored it noticeably lower than both student groups, but not overly different. The opinion on this information is clearly universal in it not being an information need of students.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	Overall, the grade distribution placemat was received quite negatively – with a low number of interviewees giving it a strong score in usefulness & influence. Therefore, the design guidelines for the presentation of this information is that it is non-essential and should not be prioritised.

4.1.7: Achievements

Figure 38: Achievements Placemat



Sample Masters Programme in ABC.

4.1.7.1: Overall Picture

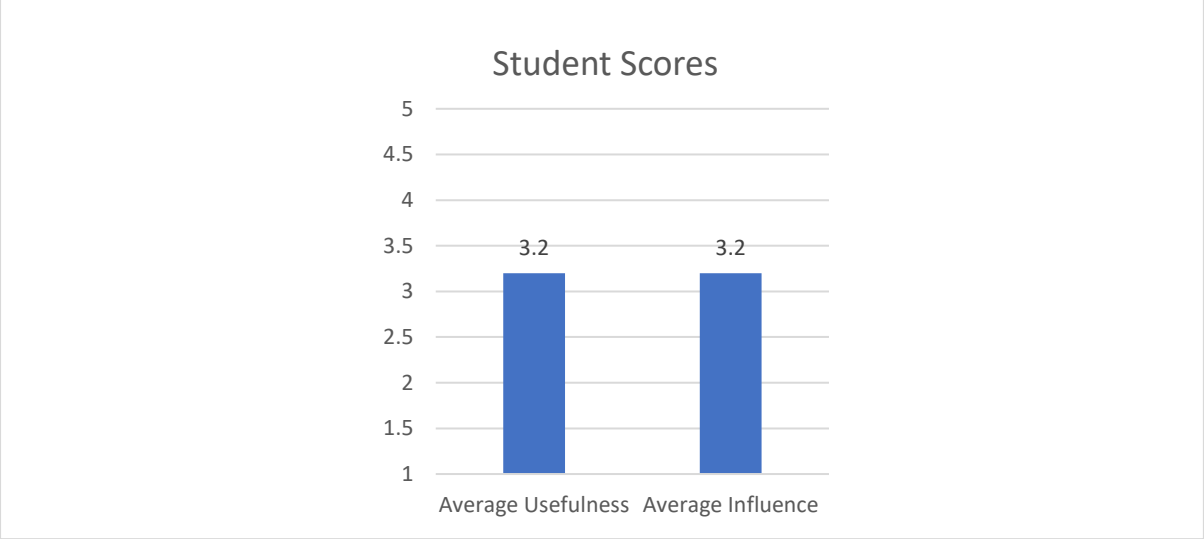
The "Achievements" data placemat required a prior description of what it is intended to convey. It hypothetically includes various achievements tied to the HEI, school and programme that is being advertised. When this placemat was reached in all interviews it was made clear by the interviewer that the achievements presented are not necessarily what are to be considered, but rather the idea of seeing the varied achievements of a HEI, or indeed schools within the HEI, or even programme specific achievements. Alternative examples of these more specific achievements that were talked about were industry partners, rate of placements achieved by programmes, and sustainability of a HEI. The "Achievements" placemat is intended to start a conversation surrounding the achievements & perceived prestige of an institution and programme, as well as to talk about the idea of prestige of a Higher Education Institution and programme within that HEI as being a point of consideration when deciding between postgraduate programmes for a prospective student. This placemat was created with the intention of investigating an aspect of prestige being that of the achievements and profile of a university or institution as being a drawing factor for prospective postgraduate students to enrol

within a given institution or programme, as throughout numerous papers this prestige was listed as a primary consideration for prospective students.

4.1.7.2: Undergraduate Students

Amongst the undergraduate student cohort, the achievements placemat received a moderate response. Many students reiterated similar points along the lines of "being able to see those achievements is certainly icing on top, but if a [university] with less achievements had a good course with a good employment rate that's what matters to me" – Undergraduate student 4. The usefulness of the achievements placemat was rated at 3.2, and the influence matched it with 3.2.

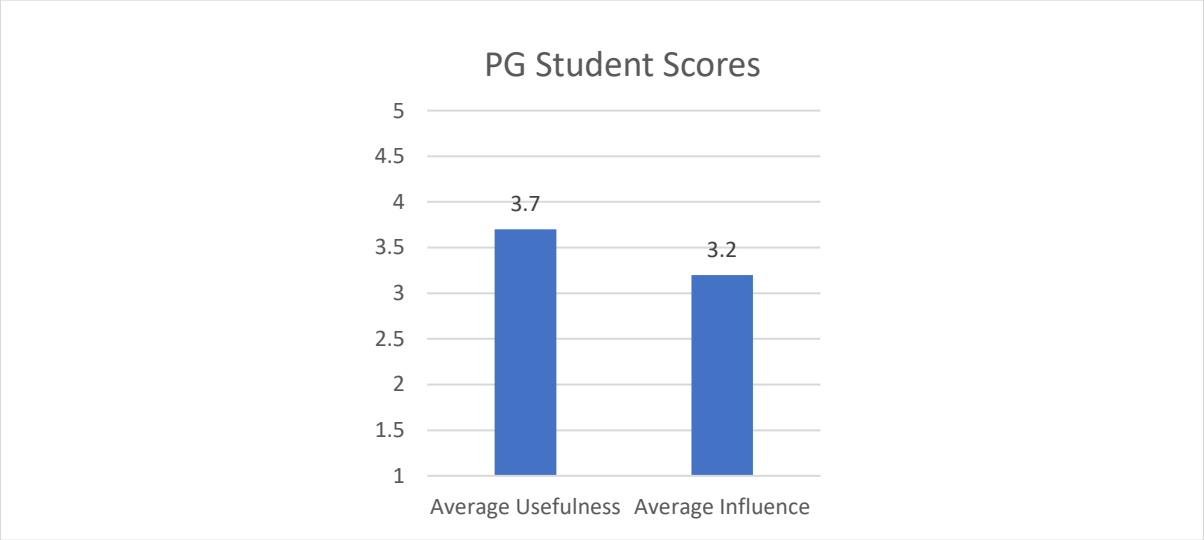
Figure 39: Achievements - Undergraduate Perspective



4.1.7.3: Postgraduate Students

A very similar sentiment was repeated throughtout the postgraduate student interviews as what was said during the undegraduate interviews. The general response was that the achievements and prestige of an institution are more filler information, and may have a slight influence on students if they're undecided between two institutions of programmes. One postgraduate student commented that many of the achievements presented by HEI's are "often just irrelevant. The only achievements that I would be interested in are accreditations and industry links." – Postgraduate interviewee 3. The scores given were moderate, usefulness getting 3.7 and influence receiving the same 3.2 as the undergraduate cohort.

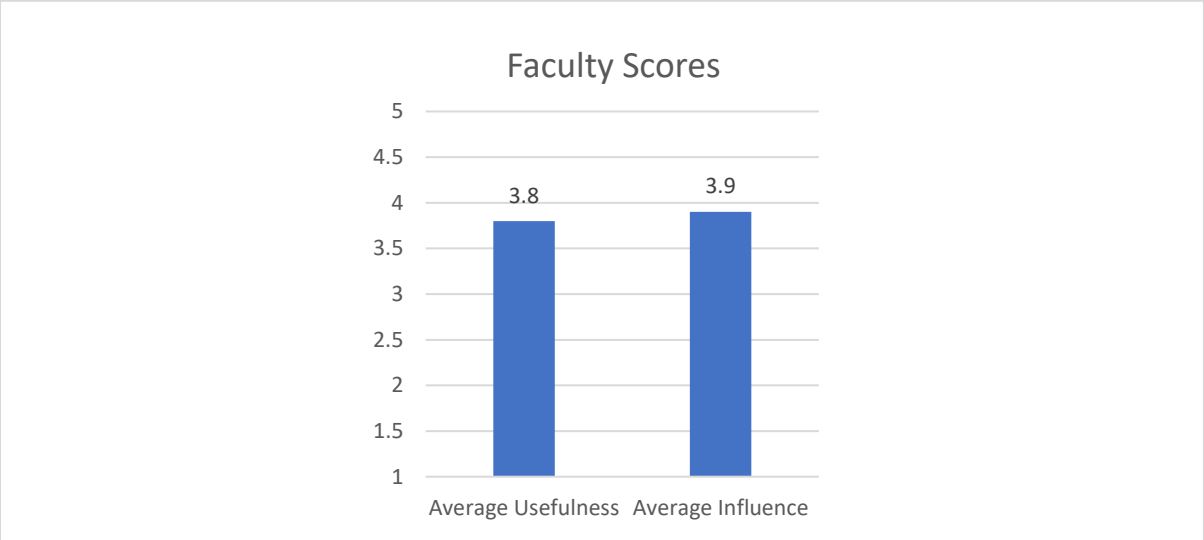
Figure 40: Achievements - Postgraduate Perspective



4.1.7.4: Faculty

The response to the achievements placemat from the faculty interviewees was very split. Half of those interviewed rated it at a 4.8 on usefulness and influence, where the other half rated it as a 2.8 usefulness and 2.5 on influence. Overall, the placemat achieved a 3.8 on usefulness and a 3.9 on influence.

Figure 41: Achievements - Faculty Perspective



4.1.7.5: Preliminary Guidelines

Based on the conversations had around the "Achievements" placemat with both student cohorts, it was a small group that considered the inclusion of achievements as a useful and influential information piece. The exceptions to this were from students who had interests in specific fields of education and employment – such as accountancy – where the accreditations of a programme would be cause for consideration. Another point of interest and minor consideration to students was the "placement rate" of a programme (if it already includes a period of time where work placement is possible during the programme). However, the other achievements included within the data placemat and also any other examples mentioned failed to generate interest amongst the majority of student interviewees.

Guidelines surrounding the inclusion of achievements as a whole on information pages are basic: Where the programme has a focus on a very specific area of learning and employment – include any achievements relating to said specific area. On top of this – include achievements and information whereby the student gets a more informed idea of the value of the programme

– the placement rates, the employment rates and industry partners associated with the programme.

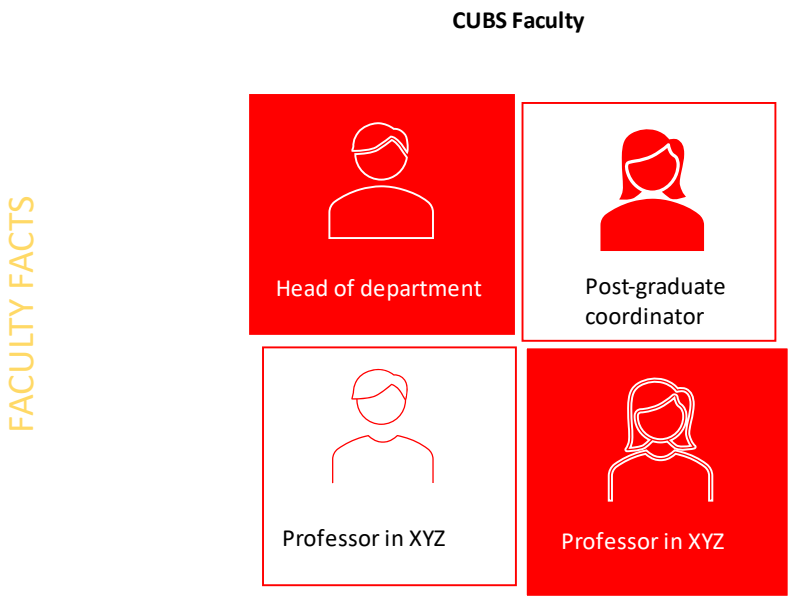
4.1.7.6: Findings

Table 17: Achievements - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	Results indicate that the achievements placemat did not receive an overwhelmingly positive response – it is not a priority information need for prospective students.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The overall scores given by the student cohorts was not too dissimilar to that given by the faculty group. However – where the averages were similar, the mode of the scores were very different. Student responses were mostly moderate, whereas faculty responses were either very high or very low.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	The concept of the achievements placemat was not a total failure with the prospective student cohort. Initial guidelines that can be drafted from this experiment is that the achievements need to be tailor fit for each programme or group of students. I.e., accreditations might be the most important thing to prospective accountancy students – any other achievements listed may be minor in comparison.

4.1.8: Faculty Placemat

Figure 42: Faculty Placemat



Sample Masters Programme in ABC.

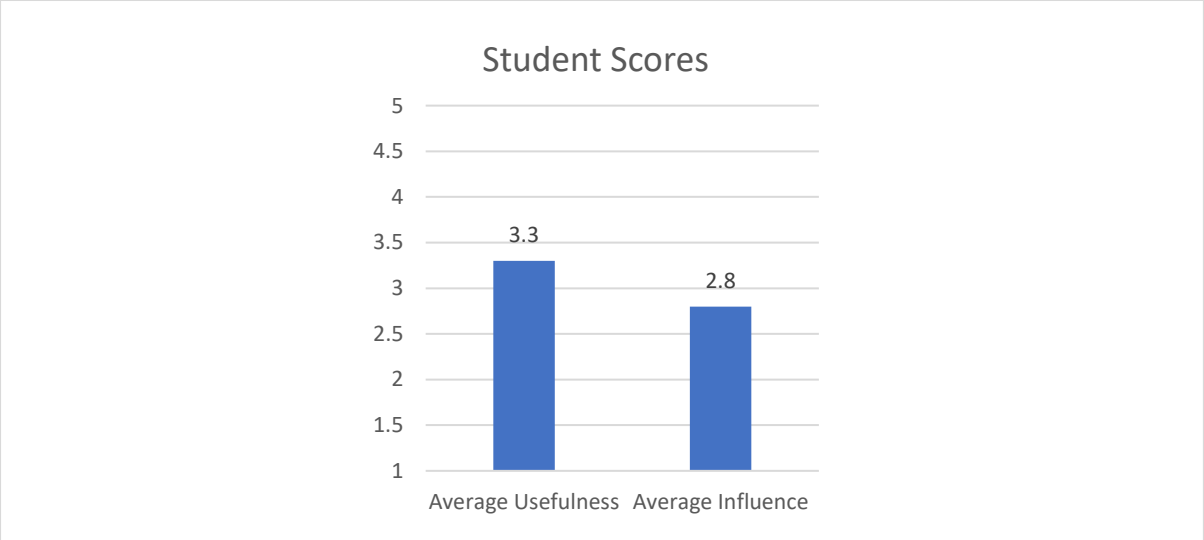
4.1.8.1: Overall Picture

The "Faculty" placemat required a quick description of what it was intended to convey during the interviewing process. It is intended portray the inclusion of faculty profiles within an information page of a programme, to show some of the primary individuals involved in the teaching of the programme. The intention of including the "Faculty" placemat within the interviews was to gauge the response of both prospective and current postgraduate students to the idea of being able to see the faculty who would be involved and heading the programme that they were investigating. This placemat, as with the "Achievements" placemat was to gauge the importance of perceived prestige throughout the student cohort. This placemat was informed from literature that placed a high level of importance on the faculty present within a programme as having a great influence on the overall level of prestige of a programme.

4.1.8.2: Undergraduate Students

The undergraduate response to the idea of the faculty placemat was moderate. Overall, there was a unanimous opinion on the lack of influence that being able to "research" the faculty involved in a specific programme would have on a prospective student's decision-making process when deciding between programmes. The usefulness was rated as a 3.3, with influence at a 2.8.

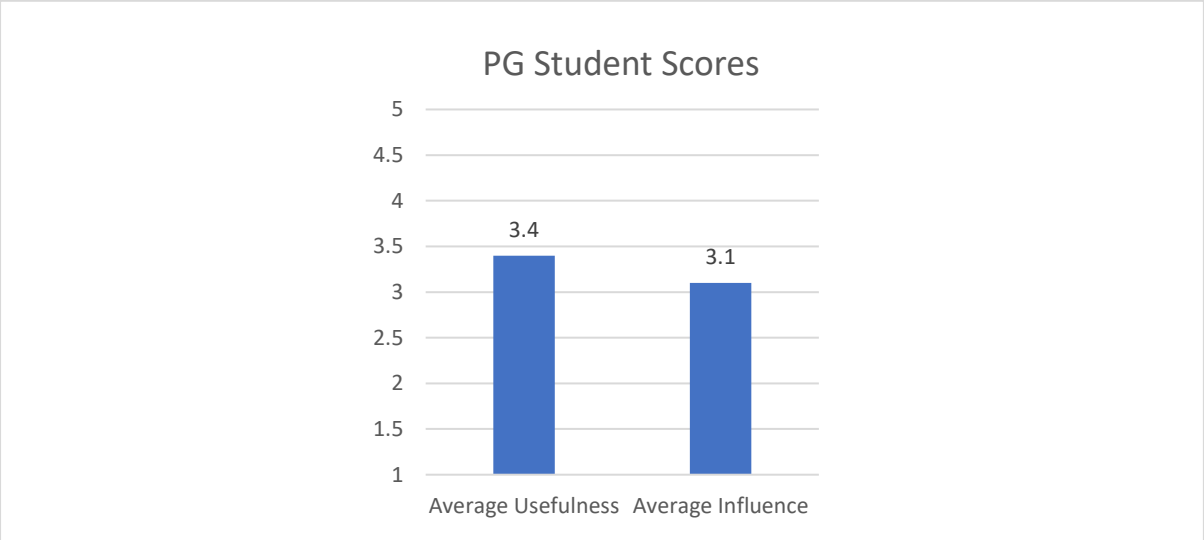
Figure 43: Faculty - Undergraduate Perspective



4.1.8.3: Postgraduate Students

The postgraduate student response was slightly more positive towards the idea of a faculty profile contained on the information pages of programmes. Throughout the interviews it was seen as a secondary piece of information. The usefulness of this placemat was rated at a 3.4, with the influence slightly below at a 3.1.

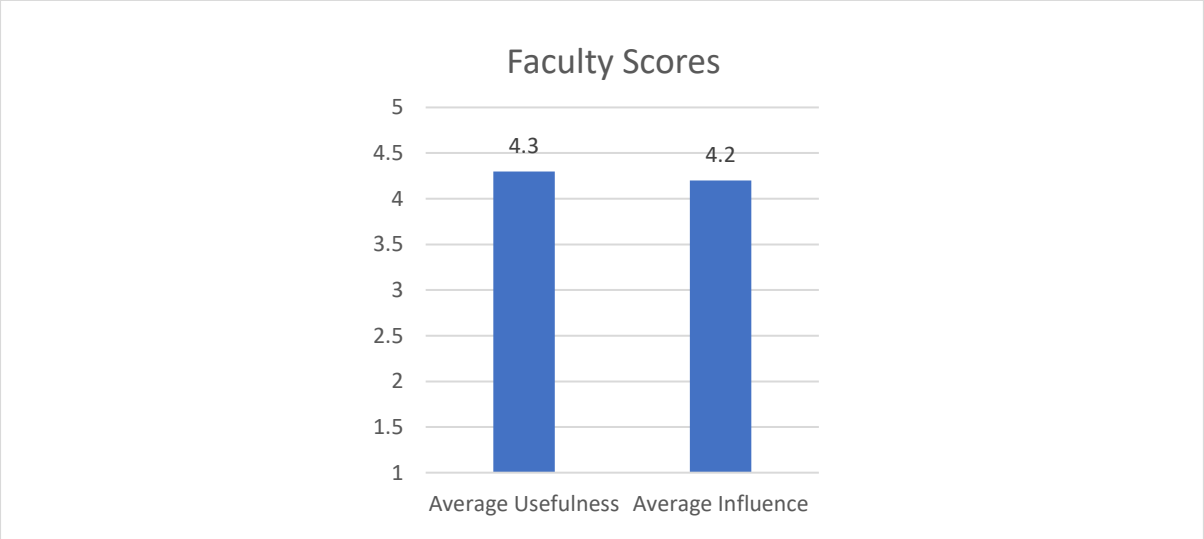
Figure 44: Faculty - Postgraduate Perspective



4.1.8.4: Faculty

The faculty opinion on the "Faculty" profile placemat was overall positive. The usefulness was rated quite highly, as well as the influence that the faculty cohort believed this information would have over prospective students. This placemat was given a 4.3 on the scale of usefulness and a 4.2 on the scale of influence.

Figure 45: Faculty - Faculty Perspective



4.1.8.5: Preliminary Guidelines

Based on the scores awarded to the "Faculty" placemat by the student cohorts – it's obvious that this is not a large primary information need for prospective students. However, a number of students did express their interest at the idea of it being included – this was explored throughout conversations held both during the placemat experiment and afterwards during the final 3 questions of the interviews conducted.

The common line of thought was that students would, indeed be interested to see the faculty involved within the programme, especially in regard to seeing the areas of interests that the faculty members have, their past experience in industry and also, ideally, a brief insight into the faculty personality through a video format – similar to the video format of student testimonials already included in some programmes.

The design guidelines that can be drafted from the conversations taking place include: That the faculty profile is not a primary point for selling a programme to a prospective student, but it would appeal to the same cohort of students who found the achievements as being an influential piece of information for their own decision-making process. A brief profile of each key faculty member involved in the programme could be included, or something as simple as a link to their research gate profile. In an ideal scenario, a small introductory video clip could be recorded for each faculty member including their areas of interest, their industry experience and academic experience.

4.1.8.6: Findings

Table 18: Faculty - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	The faculty profile placemat is not seen as a priority piece of information for students. Similar to the achievements placemat it is seen as a secondary piece of information that might make the difference in a decision between programmes.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The disparity between the student cohort and faculty cohort is quite evident in this placemat – the faculty interviewees believed that this placemat would be very useful and influential to prospective students. However, both student cohorts when asked to rate the usefulness and influence of this information gave it a moderate rating.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	The faculty placemat was not an inherent failure given the responses of the student interviewees. The given description of the desired presentation of this information seemed to interest most interviewees, but it was not seen as a priority piece of information for them. It is not an overly influential piece of information.

4.1.9: Module Roadmap

Figure 46: Module Breakdown Placemat



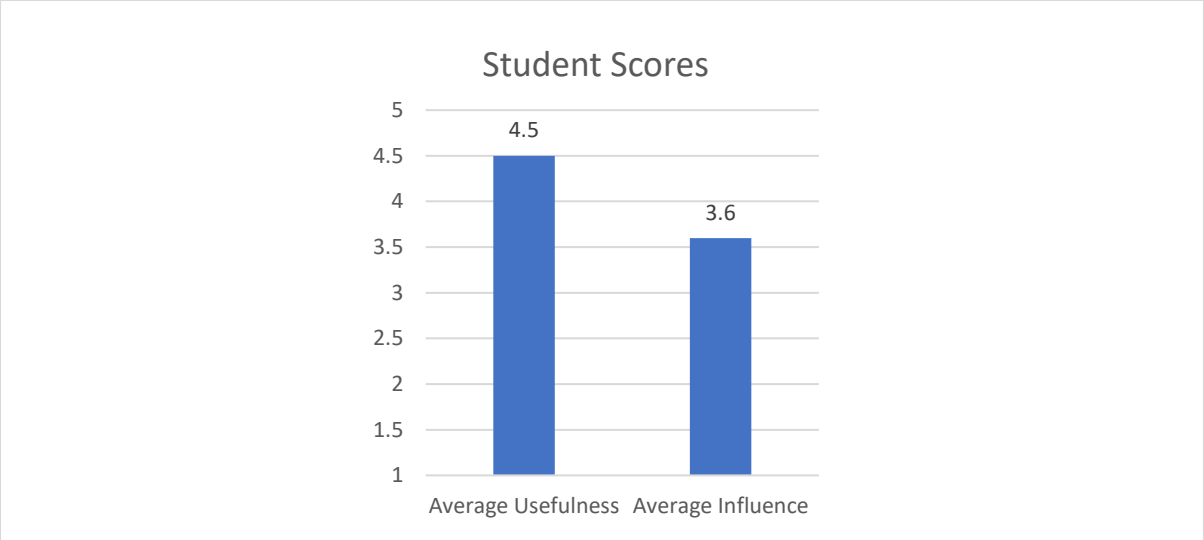
4.1.9.1: Overall Picture

The "Module Breakdown" placemat is simple in design and presentation – it is meant to show the breakdown of a programme, displaying the individual modules across a very simple timetable. Its purpose is to present the modules within a programme over semesters. It is meant to give a high-level idea of the workload that prospective students would be required to take on if choosing to enrol in said programme. The purpose of this placemat was to encourage conversation surrounding the accessibility of the modules within a programme, if seeing the modules has an impact on prospective students and what other design guidelines could be drafted based on student contribution to the placemat above. This placemat was informed by an international business school including it within an advertising brochure of one of their programmes, and the curiosity of the researcher as to its impact that it might have on a prospective postgraduate student.

4.1.9.2: Undergraduate Students

The scores awarded to the usefulness of the Module Breakdown placemat were overall positive. The usefulness of the information is very highly rated, however the influence of containing such information within an information page for a programme is moderate. Once more – the information contained is secondary to the decision-making process of a prospective student. The usefulness of the placemat was rated as 4.5, with the influence at a significantly lower 3.6.

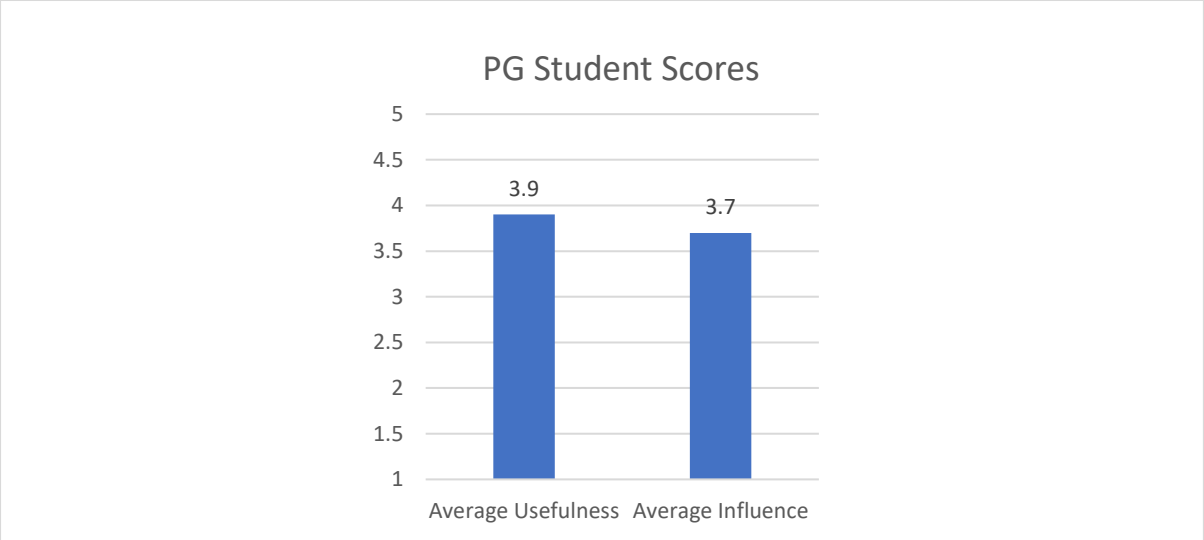
Figure 47: Module Breakdown - Undergraduate Perspective



4.1.9.3: Postgraduate Students

Similar to the undergraduate cohort's response – the postgraduate group responded quite positively to the module breakdown placemat. Although the scores awarded were lower, it's important to note that the majority of respondents awarded the usefulness of the placemat quite high, with the influence slightly lower. The overall usefulness of the placemat was given a 3.9, and the influence was given a slightly lower 3.7.

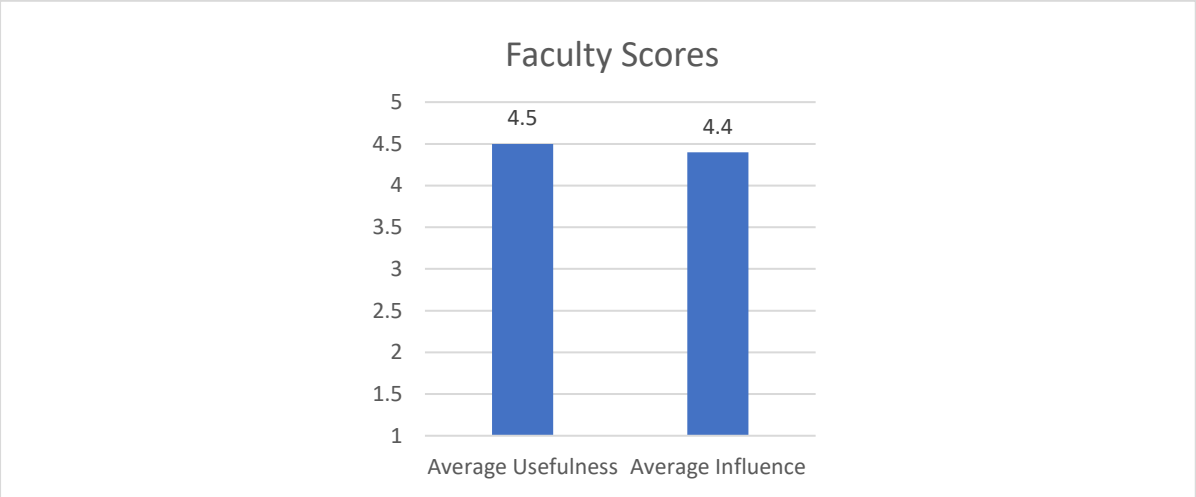
Figure 48: Module Breakdown - Postgraduate Perspective



4.1.9.4: Faculty

The perceived value of the module breakdown placemat by the faculty interviewees was very high. The usefulness and influence given by the interviewees were all quite high, and very close. The average usefulness of this placemat was given a 4.5, and the influence a slightly lower 4.4.

Figure 49: Module Breakdown - Faculty Perspective



4.1.9.5: Preliminary Guidelines

Including the "Module Breakdown" placemat led to the expected response – that students wanted to see the modules of a programme before choosing to enrol in it. Not only that – but that they would want to see what the modules involved and the breakdown of the modules over the semesters of a programme.

The conversations that ensued as a result of the placemat mostly revolved around the idea that the accessing of information dealing with the modules of a programme is overly complicated, and that the information should be included directly within the programme.

The figure of the placemat was received positively, a guideline around the inclusion of this information on the information pages of programmes is that the figure could be interactive – with links leading directly to the page specific to a module within the book of modules.

4.1.9.6: Findings

Table 19: Module Breakdown - Findings

Research Question	Placemat Analysis Findings
What are the most important information needs of prospective postgraduate students?	Although the usefulness of the Module Breakdown placemat was rated high across all three cohorts, it is important to note that the influence of the same was not rated quite as high. Though this information is, indeed, a need and want of students it doesn't necessarily contribute to the recruitment of prospective students. The simplification of presentation of this information could reflect favourably on any given programme, however.
What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?	The disparity between the scores given by the student cohorts and the faculty cohorts is only apparent in the influence scale. The perceived level of influence that this information would have on prospective students by faculty is not quite as high. However – there is a clear agreement on the importance of the presence of this information on programme pages.
What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?	During the interview process a number of discussions emerged surrounding the implementation of the "Module Breakdown" placemat. The design guidelines for this placemat are that – similar to the nuance of the "Faculty" placemat – that each module block contained within the placemat should either link to, or present a more detailed description of the module contained within it.

The table below (table 20) shows the usefulness & influence scorings across all groups interviewed, green highlights are given to scores above 4.0, amber highlights given to those that are between 3.9 and 3.0 and red highlighted scores are those below 3.0.

Usefulness & Influence of Placemats Across All Groups

Table *20*: Influence & Usefulness Scorings

Group		Class Stats		Course Info		Emp. Rates		Roles		Class Statements		Course Intake		Achievements		Faculty Facts		Roadmap	
		Use.	Infl.	Use.	Infl.	Use.	Infl.	Use.	Infl.	Use.	Infl.	Use.	Infl.	Use.	Infl.	Use.	Infl.	Use.	Infl.
Prospective Postgraduate Students (Undergraduate)	Max	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5
	Min	1	2	3	4	2	2	2	3	1	1	1	1	1	1	1	1	3	1
	Mean	3.33	3.33	4.46	4.53	4.13	3.73	4.4	4.26	4.06	3.33	3.13	3	3.2	3.2	3.33	2.8	4.53	3.6
	Std. Dev.	0.89	1.14	0.64	0.52	0.83	1.03	0.91	0.59	1.16	1.29	1.3	1.31	1.21	1.15	1.05	0.94	0.74	1.30
Current Postgraduate Students	Max	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Min	1	2	4	3	1	1	2	2	1	1	1	1	2	1	2	1	1	1
	Mean	3.44	3.11	4.44	4.33	3.88	3.66	3.55	3.77	3.11	2.55	2.88	2.44	3.66	3.22	3.44	3.11	3.88	3.66
	Std. Dev.	1.33	1.17	0.53	0.71	1.27	1.32	0.88	0.97	1.45	1.59	1.54	1.51	1	1.39	1.24	1.36	1.27	1.5
Faculty / Staff	Max	5	5	5	5	5	5	5	5	5	5	3	4	5	5	5	5	5	5
	Min	3	2	1	2	3	3	4	3	4	3	1	1	2	2	3	3	3	3
	Mean	4.2	3.7	4.2	4.1	4.3	4.4	4.8	4.5	4.9	4.6	2.3	2.2	3.8	3.9	4.3	4.2	4.5	4.4
	Std. Dev	0.79	1.06	1.39	0.99	0.95	0.69	0.42	0.71	0.32	0.84	0.67	1.14	1.14	1.1	0.67	0.79	0.71	0.84

Chapter 5: Conclusions

5.0: Introduction

This chapter presents the overall conclusions of the research study. The chapter starts with outlining the research objective and research questions for the study. This is followed by a discussion on how the conclusions of this research address the stated research objective. The practical contribution of this research is also discussed, along with a discussion on the possible implications of the findings for HEIs. Finally, the limitations of the research are briefly discussed, and the chapter concludes with possible opportunities for further research in the area.

5.1: Contributions of this Research

5.1.1: Contributions

The contribution of this research can be determined through the identification of the effectiveness of the research in answering the three research questions outlined above and achieving the overall research objective.

To summarise – the practical contributions of this research can be understood through the following:

1. *What are the most important information needs of prospective postgraduate students?*

The identification of the most important information needs has been carried out throughout this research and has provided a greater insight into the motivations of prospective postgraduate students for HEIs. The identification of these needs has been done through the researching, reviewing and analysis of the available literature as well as gathering and analysing original data for the purpose of this research through the means of individual interviews to gather both quantitative and qualitative data to better understand and then contribute to this area of research. This data has provided contributing and contradictive points of view to the current literature available, therefore expanding the understanding of what the information needs of prospective postgraduate students are. Data placemats were used to gauge an individual's responses towards specific pieces of information as presented on each placemat. A table of the findings discovered throughout the utilisation of the data placemats through the interviewing process is seen below and can provide a concise view of the effectiveness of the placemats in answering each question. A table is presented on a question-by-question basis.

Table 21: Findings of Research Question 1

Class Stats	Initial findings indicate that the information needs of students are not tied to the social make-up of a class.
Course Info	Initial findings indicate that students are heavily influenced by the price and length of a programme for their decision-making process of enrolling in a postgraduate offering or not.
Employment Rates	The response to the employment rates of students post-graduation was mostly positive. If given context and nuance behind the figures it would prove to be an impactful piece of information for prospective students.
Roles	The response to this placemat indicates that salary & transparency of potential roles are highly valued information points for prospective students.
Testimonies	The response to the student placemat is moderate within the student cohorts. Value is attributed to the idea of these testimonies based on indirect information such as potential career paths being included within them. The influence of including student testimonies is low due to the uncertainty of the honestly of HEIs in including any negative comments within these testimonies.
Course Intake	The grade distribution of a programme appears to be non-important to students based on the feedback to this placemat. Both student groups rated it as one of the least useful & influential placemats in the interviews conducted.
Achievements	Results indicate that the achievements placemat did not receive an overwhelmingly positive response – it is not a priority information need for prospective students.
Faculty Placemat	The faculty profile placemat is not seen as a priority piece of information for students. Similar to the achievements placemat it is seen as a secondary piece of information that might make the difference in a decision between programmes but cannot be considered a primary information need.
Module Roadmap	Although the usefulness of the Module Breakdown placemat was highly rated across all three interviewee groups, it is

	important to note that the influence of the same was not rated quite as high. Though this information is regarded as a need and want of students - it doesn't necessarily contribute to the recruitment of prospective students. A simplified presentation of this information could reflect favourably on any given programme, however.

2. *What are the similarities / differences between the actual information needs of prospective postgraduate students (as stated by prospective postgraduate students) versus the perceived information needs of prospective postgraduate students (as perceived by HEI recruitment personnel)?*

The differences between actual information needs of prospective postgraduate students and what has been stated as being the most important information to provide to prospective postgraduate students up to this point have been identified within the sample group. Identifying this disparity between the two can provide a greater understanding of where HEIs have possibly fallen short within their advertising and promotion of postgraduate offerings. The contrasts provided within this research has proven a significant disparity between the perceived and actual information wants and needs of postgraduate students as perceived by HEIs. Like research question 1 above, a table is given to show the concise findings from each placemat.

Table 22: Findings of Research Question 2

Class Stats	The differences in perceived value of information between prospective & current postgraduate students and faculty members is apparent in the feedback received on the class stats data placemat. Disparities in actual value & influence values between the two groups and most impactful information indicate this.
Course Info	The differences in perceived value of information between prospective & current postgraduate students and faculty members non-apparent in the feedback received on the course info data placemat. The values of average usefulness and average influence are very close across all three cohorts within the course info placemat.
Employment Rates	The differences in perceived value of information between prospective & current postgraduate students and faculty members very close from the feedback received on the employment rates data placemat. The values of average usefulness and average influence are close across all three cohorts within the course info placemat, and all three repeated similar points to consider if it was to be used on university information pages.
Roles	The differences in perceived values between prospective and postgraduate students is relatively obvious from the results of this placemat. However – the perceived usefulness and influence between the undergraduate and faculty cohorts are close, with a very high score being given to both areas. Roles was consistently the most impactful piece of information contained within the placemat, followed by salary figures.
Testimonies	The differences in perceived value of information between prospective & current postgraduate students and faculty is massively apparent within this placemat. The values of average usefulness and average influence are quite significant between the student & faculty groups.
Course Intake	The scores awarded by the faculty and student groups for the usefulness and influence of the grade distribution were all

	within the lowest given to any of the placemats within the interviews conducted. The faculty scored it noticeably lower than both student groups, but not overly different. The opinion on this information is clearly universal in it not being an information need of students.
Achievements	The overall scores given by the student cohorts was not too dissimilar to that given by the faculty group. However – where the averages were similar, the mode of the scores were very different. Student responses were mostly moderate, whereas faculty responses were either very high or very low.
Faculty Placemat	The disparity between the student cohort and faculty cohort is quite evident in this placemat – the faculty interviewees believed that this placemat would be very useful and influential to prospective students. However, both student cohorts when asked to rate the usefulness and influence of this information gave it a moderate rating.
Module Roadmap	The disparity between the scores given by the student cohorts and the faculty cohorts is only apparent in the influence scale. The perceived level of influence that this information would have on prospective students by faculty is not quite as high. However – there is a clear agreement on the importance of the presence of this information on programme pages.

3. *What are the design guidelines for information needs that will benefit HEIs in postgraduate recruitment?*

Preliminary guidelines for information to include within postgraduate offerings for HEIs have been theorised and drafted throughout the study, primarily within the boundaries of the analysis of each data placemat. These guidelines are drafted based on the consolidated findings of each interview relating to each individual data placemat which deals with different potentially important information points. The drafted guidelines can provide a general direction in which HEIs can steer their promotional material for their postgraduate offerings in order to improve their recruitment process for postgraduate students, and better understand the motivations of potential students to their programmes. As with the prior two research questions, a table is given to show the summary of findings in relation to research question 3, also utilising the same structure of answering the question on a placemat-by-placemat basis.

Table 23: Findings of Research Question 3

Class Stats	A high-level design guideline can be drafted from this feedback – class make-up contained in the class stats placemat is not an information need or want of students, and therefore it should not be prioritised as a selling point of a programme. The language used surrounding the class make-up of a course should also be more informed by EDI standards for the purpose of inclusivity to all individuals viewing the material.
Course Info	Design guidelines for including this information are based on the feedback of students and what they need to see – i.e., full costs associated with programmes, and any and all alternative payment methods available – including scholarships or payment by instalments.
Employment Rates	The initial response to this placemat indicates that future iterations of the employment rate placemat need to include the context of the data, and any nuance behind it – i.e., the roles that graduates of a given course acquire, not just the employment rates.
Roles	The information contained within this placemat is perceived as highly valuable by both faculty and prospective postgraduate students. More specific information

	surrounding roles such as location were pointed out as adding value to the information.
Testimonies	The response to this placemat was beneficial to the design guidelines that can be drafted. Honest testimonies are the ideal circumstance for the inclusion of student testimonials. There is also a want for contact details to past students so that prospective students can contact them directly for an "honest" evaluation of a programme.
Course Intake	Overall, the grade distribution placemat was received quite negatively – with a low number of interviewees giving it a strong score in usefulness & influence. Therefore, the design guidelines for the presentation of this information is that it is non-essential and should not be prioritised.
Achievements	The concept of the achievements placemat was not a total failure with the prospective student group. Initial guidelines that can be drafted from this experiment is that the achievements need to be tailor fit for each programme or group of students. I.e., accreditations might be the most important thing to prospective accountancy students – any other achievements listed may be miniscule in comparison.
Faculty Placemat	The faculty placemat was not an inherent failure given the responses of the student interviewees. The given description of the desired presentation of this information seemed to interest most interviewees, but it was not seen as a priority piece of information for them. It is not an overly influential piece of information.
Module Roadmap	During the interview process a number of discussions emerged surrounding the implementation of the "Module Breakdown" placemat. The design guidelines for this placemat are that – similar to the nuance of the "Faculty" placemat – that each module block contained within the placemat should either link to or present a more detailed description of the module contained within it.

5.1.1.1: Contributions to Theory

As stated early on within this paper, the availability of literature pertaining to the topic of postgraduate recruitment and retention was limited, and often dated. The contribution of this research to the theory of this topic is impactful as it has made an effort to consolidate and draw parallels between the available literature spanning decades, as well as having put the proposed theories to the test throughout the data gathering process. The presentation of the gathered and analysed data within this study will contribute to the overall understanding of the motivations of prospective postgraduate students, and may be expanded upon, contradicted or confirmed through continued research into this topic. Table 9 within this research can assist in the theory of this topic, through a combined view also using table 20 to try and understand what the most persuasive and important topics of information are to prospective postgraduate students, whilst also being able to view how these pieces of information can be given or displayed. The qualitative information given within the interviews throughout this research, the real valuable qualitative data, of which the most insightful has been summarised throughout this study is also key in understanding the "why" of the strength of the information points that prospective students need for an informed choice of programme.

5.1.2.2: Contributions to Practice

The primary purpose of this research was to investigate the primary information needs of prospective postgraduate students. Higher Education Institutions, in their pursuit of improving their recruitment and retention of prospective postgraduate students may find that utilising the research conducted through this study would prove beneficial to their recruiting efforts and may provide an increased level of engagement and interaction from prospective postgraduates. This potential improvement to the recruiting efforts of HEIs was one of the focuses of this study, and if the findings of this study are used by HEIs it can contribute greatly to their efforts. Therefore, this research has a significant potential contribution to practice – that being the recruitment process of HEIs. Table 24 within this study shows that there has been a disconnect between the information used within HEIs regarding the postgraduate offerings and the information needs of prospective students, therefore, being able to put forward a set of the most important information needs in contrast to the perceived needs by HEIs can be massively beneficial if used in the practical recruiting efforts within those same institutions.

Matrix of Information Included Within CUBS Information Pages

Table 24: CUBS Information Matrix

Taught Programme	Length & Price	Roles & Salary	Employment Rate	Module Map	Testimonies	Achievements	Class Stats	Faculty	Grade Distribution
Accounting	Y	X	N	N	N	N	N	N	N
Business Economics	Y	X	N	N	N	N	N	N	N
BIAS	Y	X	N	N	Y	N	N	N	N
Co-Ops, Agri-Food & SD	Y	X	N	N	N	N	N	N	N
Cyber Risk for Business	Y	X	N	N	Y	N	N	N	N
Design & Development of Digital Business	Y	X	N	N	N	N	N	N	N
Finance (Asset Mgmt)	Y	X	N	N	Y	N	N	N	N
Finance (Banking and Risk Management)	Y	X	Y	N	Y	N	N	Y	N
Finance (Corporate Finance)	Y	X	Y	N	Y	Y	N	N	N
Food Business and Innovation	Y	X	N	N	N	N	N	N	N
Food Security Policy and Management	Y	N	N	Y	N	N	N	N	N
Human Resource Management	Y	N	N	X	N	N	N	N	N
Information Systems for Business Performance	Y	X	Y	N	Y	Y	N	N	N
Management & Marketing	Y	N	N	N	Y	N	N	N	N
MI & Managerial Accounting Systems	Y	X	N	N	Y	N	N	N	N
Strategic Marketing and Practice	Y	N	N	N	Y	N	N	N	N

5.2: Limitations

Research is often limited by numerous factors such as access to data, time, or even financial resources. These limitations in research projects can affect the quality, robustness, and strength of the research findings despite the greatest efforts of researchers to make their projects as high quality, valuable and effective as possible. With this in mind, this research project also had limitations outlined in the following section.

While the research itself can provide valuable insight into the motivations of postgraduate students, there were naturally limitations in the research conducted which may impact the overall value of the findings but allow for improvements in any research continued from this study. The limitations include:

5.2.1: Sample Size

The primary data gathering method utilised throughout this study was individual interviews across three groups – final year undergraduate students (prospective postgraduates), current postgraduate students, and faculty involved in postgraduate programmes. These three cohorts were chosen because of the relevance that they would have in their opinions being able to answer research questions 1 & 2 respectively. However, as the research topic itself covers a vast number of individuals even within UCC, the numbers of individuals interviewed may not be sufficient to answer with confident certainty that the data presented is representative of the student population, and indeed the faculty population also. The limited sample size of individuals interviewed also limits the possibility of being able to identify the differences between various subgroups within the student population, such as mature or international students.

For any continued research into this topic, a greater sample size of individuals would provide a greater level of confidence in the findings presented.

5.2.2: Bias of the Researcher

Individual interviews are a powerful method of data gathering, particularly for the context that it can provide, and the nuance of the information being collected. However, it can also be a source of "weak" data for this reason. Though bias was avoided at all possible points during this research, it is possible that some of the observations or interpretations of the researcher

when given certain pieces of information could be incorrect due to bias towards what they themselves might consider the most important information needs of a prospective postgraduate student.

5.2.3: Diversity of Data Pools

The data gathering method of this research primarily targeted final year undergraduate students within the Cork University Business School – as the focus of the research was to be on the business school itself. However, the majority of the participants who took part in the study were from the largest undergraduate programme. This disparity in equal representation of students across undergraduate programmes within the business school of UCC might lead to skewed data.

In future, more emphasis should be placed on trying to get increased engagement from across all applicable student bodies to avoid skewed results. On top of this, student background might provide rich insights into the differences of information needs across different pools of students.

5.3: Conclusions

In conclusion, the research conducted has answered to the best of its ability what the information needs of prospective postgraduate students are within the context of business schools. It has also shown that there is a difference in the desired information of said students compared to what is being presented by HEIs across their advertising material. Although the research was conducted within the context of Cork University Business School, many of the same information points being given within CUBS were present across the international and other national business schools investigated, showing that there may be a larger issue in the overall perception of what prospective students deem important in their educational journey.

This research has provided an insight for HEIs into where their promotional materials can focus in order to draw the attention of prospective postgraduate students, as well as preliminary guidelines in how to promote this information. The value and insights provided through this research may have a great impact on the recruiting and retention methods utilised by HEIs and will hopefully promote continued research into this topic across a broader range of disciplines and continue to assist both HEIs and prospective students to be better informed.

References

Higher Education Authority Ireland. (2021, 10 20). *Key Facts & Figures 2020/2021*. Retrieved from HEA.ie: https://hea.ie/statistics/data-for-download-and-visualisations/enrolments/key-facts-figures-2020-2021/

Alan, A. K., Kabadayi, E. T., & Cavdar, N. (2018). BEYOND OBVIOUS BEHAVIOR PATTERNS IN UNIVERSITIES: STUDENT ENGAGEMENT WITH THE UNIVERSITY. *Research Journal of Business and Management*, 222-230.

Barone, C., & Ortiz, L. (2011). Overeducation among European University Graduates: a comparative analysis of its incidence and the importance of higher education differentiation. *Journal of Higher Education* , 325-337.

Benbasat, I., Golstein, D., & Mead, M. (1987). The Case Research Strategy in Studies of Information Systems. *MIS Quarterly*, 369-386.

Bennet, D. (2006). The effectiveness of current student ambassadors in HE marketing recruitment and retention. *paper presented at the International Conference on HE marketing Cyprus, 3-5 January*.

Bryman, A. (2012). *Social Research Methods.* Oxford University Press; 4th edition.

Central Statistics Office. (2021). *Domiciliary Origin of Students Enrolled in Full-time Third Level Institutions.* Department of Education and Skills.

Chapman, A., & Pyvis, D. (2006). Quality, Indentity and practice in offshore university programmes: issues in the internationalization of Australian higher education. *Teaching in Higher Education*, 233-245.

Chapman, R. (1986). Towards a Theory of college selection: A model of college search and choice behaviour. *Advances in Consumer Research* , 246-250.

Coccari, R. L., & Javalgi, R. G. (1995). Analysis of Students' Needs in Selecting A College or University in a Changing Environment. *Journal of Marketing for Higher Education 6(2)*, 27-40.

Cohen, L., Manion, L., & Morrison, K. (2017). *Research Methods in Education.* Routledge.

Conard, M. K. (2000). An Analysis of Academic Reputation as Perceived by Consumers of Higher Education. *Journal of Marketing for Higher Education*, 69-80.

Crabtree, B. D.-B., & Benjamin, F. (2006). The qualitative research interview. *Medical Education 40*, 314-321.

Creswell, J. W., & Clark, V. L. (2018). *Designing and Conducting Mixed Methods Research.* London: Sage Publications Inc.

Creswell, J., & Poth, C. N. (2018). *Qualitative inquiry & Research Design: Choosing Among Five Approaches.* Michigan: SAGE.

Curtis, L. A. (2011). Graduate School Choice and Recruitment: An Assessment of the Graduate School Choice and Recruitment: An Assessment of the Administrative Decisions. *MPA/MPP Capstone Projects. 94.* .

Durrheim, K. (2006). *Research in Practice: Applied Methods for the Social Sciences 2nd Ed.* Juta and Company Ltd.

Eckles, J. E., & Stradley, E. G. (2012). A social network analysis of student retention using archival data. *Soc. Psychol. Educ*, 165-180.

Eisenhardt, K. (1989). Building theories from case study research. *Academy of Management Review*, 532-550.

F. Angulo, A. P. (2010). A market sementation approach for higher education based on rational and emotional factors. *Journal of Marketing for Higher Education*, 1-17.

Fernandez, J. L. (2010). AN EXPLORATORY STUDY OF FACTORS INFLUENCING THE DECISION OF STUDENTS TO STUDY AT UNIVERSITI SAINS MALAYSIA. *Kajian Malaysia* , 107-136.

Fritz, J. (2011). Classroom walls that talk: Using online course activity data of successful students to raise self-awareness of underperforming peers. *Journal of Internet and Higher Education*, 89-97.

G. N. Soutar, J. P. (2002). Students' Preferences for University: A conjoint analysis. *International Journal of Educational Management*, 40-45.

Glaser, B., & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research.* AldineTransaction.

Gray, B. S. (2003). Branding universities in Asian markets. *Journal of Product & Brand Management*, 108-120.

Harris, S., & Sutton, R. (1986). Functions of parting ceremonies in dying. *Academic Management Journal*, 5-30.

Harvey, J. A. (1996). Marketing schools and consumer choice. *International Journal of Educational Management Vol. 10 no. 4*, 26-32.

Hayes, T. J. (1989). How Students Choose a College. *Journal of Marketing for Higher Education 2(1)*, 19-28.

Hemsley-Brown, J., & Oplatka, I. (2006). Universities in a competitive global marketplace. *International Journal of Public Sector Management*, 316-338.

Hesketh, A. J., & Knight, P. T. (1999). Postgraduates' choice of programme: Helping universities to market and postgraduates to choose. *Studies in Higher Education*, 151-163.

Higher Education Authority Ireland. (2021). *Course Fees.* Retrieved from hea.ie: https://hea.ie/funding-governance-performance/funding/student-finance/course-fees/

Holbrook, M. (2005). Marketing education as bad medicine for society: the gorilla dances. *Journal of Public Policy and Marketing, 24(1)*, 134-145.

Irish Department of Education. (2018, November). *Projections of demand for full-time third level education 2018-2040.* Retrieved from gov.ie: https://assets.gov.ie/26624/2e0eb506997d4d99badfa8df5b07058c.pdf

Irish Universities Association. (2018). *Ireland's Future Talent – A Charter for Irish Universities.* Dublin: Irish Universities Association. Retrieved from iua.ie.

Ivy, J. (2002). University Image: The role of marketing in MBA student recruitment in state subsidized universities in the Republic of South Africa. *Unpublished Doctor of Education thesis, University of Leicester.*

Jepsen, D. M., & Neumann, R. (2010). Undergraduate student intentions for postgraduate study. *Journal of Higher Education Policy and management*, 455-466.

Joffe, H., & Yardley, L. (2004). Content and Thematic Analysis. In D. Marks, & L. Yardley, *Research Methods for Clinical and Health Psychology* (pp. 56-69). SAGE.

Joseph, M. M. (2012). University branding: Understanding students ' choice of an educational institution. *Journal of Brand Management*, 1-12.

Kaae, S., Sonergaard, B., Haugbolle, L. S., & Traulsen, J. M. (2010). Development of a qualitative exploratory case study research method to explore sustained delivery of cognitive services. *Pharm World Sci* , 36-42.

Kallio, R. E. (1995). FACTORS INFLUENCING THE COLLEGE CHOICE DECISIONS OF GRADUATE STUDENTS . *Research in Higher Education, Vol. 36, No. 1, ,* 109-124.

Knapp, P. T. (2012). *Marketing Higher and Further Education: An Educator's Guide to Promoting Courses, Departments and Institutions.*

Lei, S. A., & Chuang, N.-K. (2010). Demographic factors influencing selection of an ideal graduate institution: A literature review with recommendations for implementation. *College Student Journal, 44*, 84-95.

Lincoln, Y. (1985). *Naturalistic Inquiry.* Sage.

Lockwood, R. C., & Hadd, J. (2008). Building a Brand in Higher Education Why business practices -- particularly brand strategies -- are becoming essential in today's universities. *Gallup Management Journal*.

Malaney, G. D. (1985). AN ORGANIZATIONAL PERSPECTIVE OF GRADUATE STUDENT RECRUITMENT: A RESOURCE DEPENDENCE APPROACH. *The Review of Higher Education* , 375-386.

Maringe, F. (2006). University and course choice Implications for positioning, recruitment and marketing. *International Journal of Educational Management*, 466-479.

Maxwell, J. A. (2008). Designing a Qualitative Study. In L. Bickman, & D. J. Rog, *The SAGE Handbook of applied social Research Methods* (pp. 214-227). SAGE Publications.

Mazzarol, T., & Soutar, G. N. (2002). "Push-pull" factors influencing international student destination choice. *International Journal of Educational Management*, 82-90.

Mellon, C. (1990). Naturalistic Inquiry for Library Science: Methods and Applications for Research, Evaluation, and Teaching. *Library Science*.

Moogan, Y. J., Baron, S., & Bainbridge, S. (2001). Timings and trade-offs in the marketing of higher education courses: a conjoint approach. *Marketing Intelligence & Planning*, 179-187.

Morse, J. M. (1991). Approaches to Qualitative-Quantitative Methodological Triangulation. *Nursing Research*, 120-123.

N. Ketel, J. L. (2016). Tuition Fees and Sunk-cost Effects. *The Economic Journal, Vol 126 Iss. 598*, 2342-2362.

National Center for Educational Statistics. (2021, 5). *Postbaccalaureate Enrollment*. Retrieved from National Center for Educational Statistics: https://nces.ed.gov/programs/coe/indicator/chb

Newell, S. J., Titus, P. A., & West, &. J. (1996). Investigating the Undergraduate Student Decision-Making Process of Selecting a Business Specialization: A Comparison of Marketing and Nonmarketing Business Students. *Journal of Marketing Education 18(3)*, 57-67.

Osgerby, J. (2012). Students' Perceptions of the Introduction of a Blended Learning Environment: An Exploratory Case Study. *Accounting Education*, 85-99.

P. Kotler, K. K. (2016). *Framework for Marketing Management, 6th Edition.* Pearson.

Pankaj, V., & Emery, A. E. (2016). Data Placemats: A Facilitative Technique Designed to Enhance Stakeholder Understanding of Data. In A. D. S. Fierro, *Evaluation and Facilitation. New Directions for Evaluation* (pp. 81-93). Jossey-Bass.

Pankaj, V., & Emery, A. K. (n.d.). Data placemats: A facilitative technique designed to enhance stakeholder understanding of data. In A. S. R. S. Fierro, *Evaluation and Facilitation. New Directions for Evaluation* (pp. 81–93).

Patton, M. (1990). *Qualitative Research & Evaluation Methods : Integrating Theory and Practice.* Thousand Oaks, US: SAGE Publications Inc.

Punch, K. (2005). *Introduction to social resaerch: Quantitative and Qualitative approaches.* SAGE.

Rao, V., & Woolcock, M. (2003). Integrating Qualitative and Quantitative Approaches in Program Evaluation. In F. Bourguignon, & L. P. Silva, *The impact of economic policies on poverty and income distribution: Evaluation techniques and tools* (p. Chap 8). Oxford: Oxford University Press.

Rodríguez-Gómez, D., Feixas, M., Gairín, J., & Muñoz, J. L. (2015). Understanding Catalan university dropout from a cross-national approach. *Studies in Higher Education*, 690-703.

Rosado, D. L., & David, M. (2006). A massive university or a university for the masses?: Continuity and change in higher education in Spain and England. *Journal of Education Policy 21(3)*, 343-365.

Rosenberg, R. D. (2008). *AN ANALYSIS OF FACTORS THAT INFLUENCE MATRICULATION AT THE MASTERS LEVEL* . Pennsylvania: ProQuest LLC.

Sá, F. (2014). *The Effect of Tuition Fees on University Applications and Attendance: Evidence from the UK.* Bonn, Germany.: IZA.

Scott, P. (1984). *The Crisis of the University.* London: Routledge.

Selnes, F. (1998). Antecedents and consequences of trust and satisfaction in buyer-seller relationships. *European Journal of Marketing, Vol. 32 No. 3/4*, 305-322.

Sharrock, G. (2000). Why students are not 'just' customers. *Journal of Higher Education Policy and Management, 22(2)*, 149-164.

Sung, M., & Yang, S.-U. (2008). Toward the Model of University Image: The Influence of Brand Personality, External Prestige, and Reputation. *Journal of Public Relations Research*, 357-376.

Tas, A., & Ergin, E. A. (2012). Key Factors for Student Recruitment: The Issue of University Branding. *International Business Research; Vol. 5, No. 10*, 146-153.

Thomas, G. (2015). *How to Do Your Case Study.* SAGE Publications Ltd.

Thompson, J. (1967). *Organizations in action: Social science bases of administrative theory.* New York: McGraw-Hill.

Turner, D. W. (2010). Qualitative Interview Design: A Practical Guide for Novice Investigators. *The Qualitative Report*, 754-760.

Vaughn, R. O. (1978). Understanding University Choice: A multi-attribute approach. *Advances in Consumer Research*, 26-31.

Veloutsou, C., Lewis, J. W., & Paton, R. A. (2004). University Selection: Information requirements and importance. *International Journala of Educational Management*, 160-171.

Westbrook, L. (1994). Qualitative research methods: A review of major stages, data analysis techniques, and quality controls. *Library & Information Science Research*, 241-254.

Wilson, J. (2014). *Essentials of Business Research: A Guide to Doing Your Research Project.* SAGE.

Yin, R. (1981). The Case Study Crisis: Some Answers. *Administrative Science Quarterly vol.26*, 58-65.

Yin, R. K. (2018). *Case Study Research And Applications: Design and Methods.* SAGE Publications Inc.

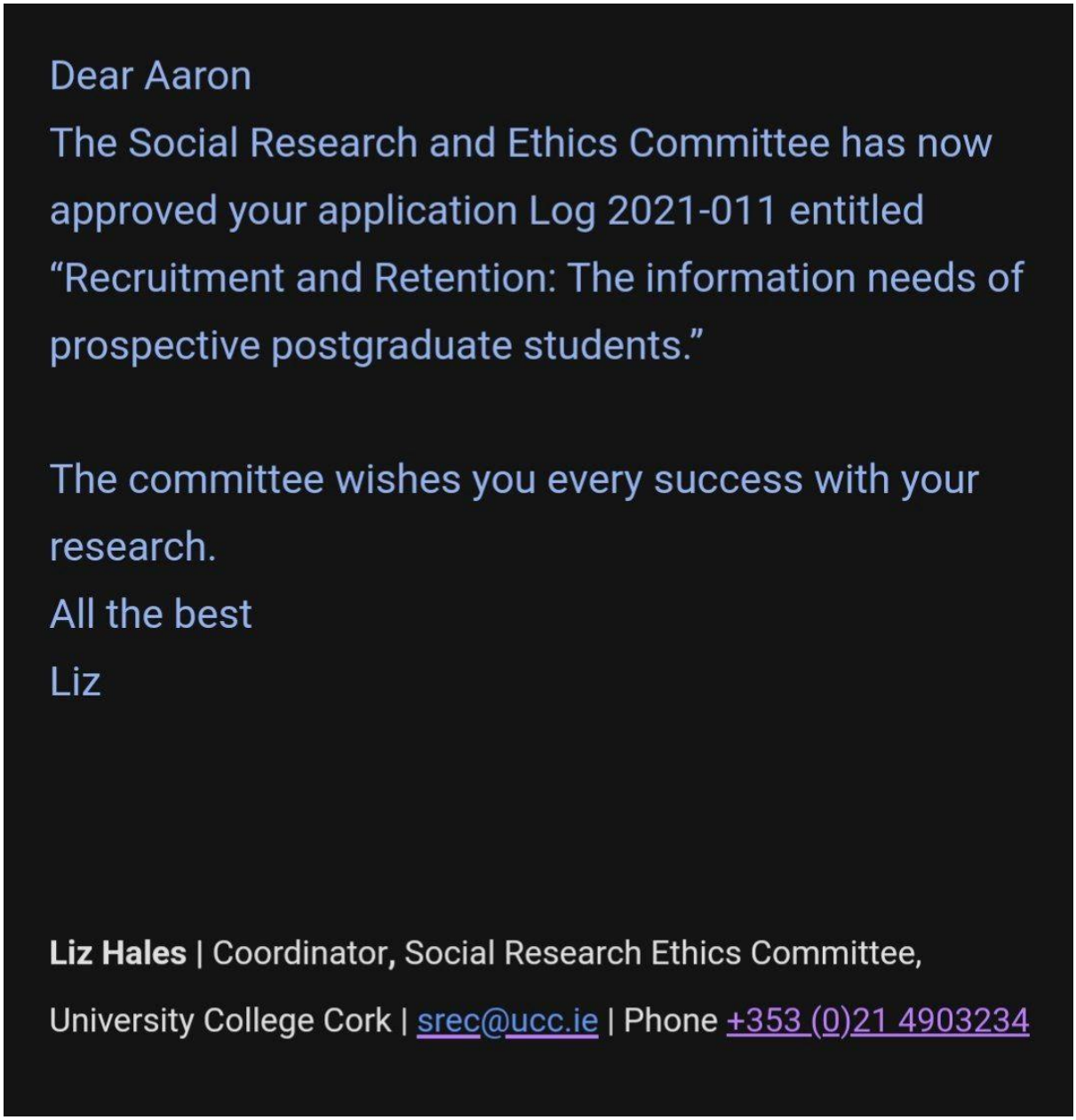
Zhang, L. (2005). Advance to Graduate Education: The Effect of College Quality and Undergraduate Majors. *The Review of Higher Education, Volume 28*, 313-338.

Zhang, T. &. (2007). Agent-based simulation of consumer purhcase decision-making and the decoy effect. *Journal of Business Research* , 912-922.

7.0: Appendix

7.1: Appendix A – Proof of Ethical Approval

7.1.1: Confirmation of Ethical Approval for research



7.2: Appendix B – List of Interviews by Group

7.2.1: List of Final Year Undergraduate Student Interviews.

1	Final Year Undergrad Student	44:36
2	Final Year Undergrad Student	34:23
3	Final Year Undergrad Student	34:31
4	Final Year Undergrad Student	33:40
5	Final Year Undergrad Student	45:02
6	Final Year Undergrad Student	36:24
7	Final Year Undergrad Student	49:10
8	Final Year Undergrad Student	25:31
9	Final Year Undergrad Student	33:12
10	Final Year Undergrad Student	25:46
11	Final Year Undergrad Student	28:16

7.2.2: List of Faculty Member Interviews.

1	Faculty Member	36:27
2	Faculty Member	1:00:32
3	Faculty Member	34:23
4	Faculty Member	43:32
5	Faculty Member	30;29
6	Faculty Member	31:52
7	Faculty Member	42:09
8	Faculty Member	1:06:50
9	Faculty Member	45:10

7.2.3: List of Postgraduate Student Interviews.

11	Postgraduate Student	54:23
22	Postgraduate Student	34:21