Graduate Students’ Perceptions of a Problem-based Learning (PBL) Programme in a Higher Education Institution in Ireland; Exploring the Function of Power Relations and Group Identity Formation

By

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ABSTRACT

Problem-based approaches to student learning in higher education have become increasingly popular in recent years predicated on the assumption that they are significantly different to traditional forms of pedagogy in that they represent a more engaging, applied, interactive and balanced distribution of power between the lecturer and the student. However, despite these claims, the extent to which these pedagogies create greater levels of student autonomy and challenge the traditional power relationships between student and lecturer is unknown. To explore this issue, this study examines the techniques of power as perceived by students enrolled in a specific business related master’s programme run using a PBL methodology and identifies ways these students identify with their programme including the methods employed to differentiate their PBL programme over and above others.

Employing a qualitative interpretivist approach, 13 graduates of a part-time, PBL based, master programme in an Irish educational institute were interviewed to explore the nature of power relations between the lecturer and the student as perceived through the lived experience of the student. The study found that PBL has done little to level the perceptions of power imbalance within this higher education programme, particularly with regards to part-time students. In fact, the students are highly critical of what they perceive to be lecturer attempts to wield power using both implied and explicit means and in response these students employ several strategies attempting to increase their status in terms of power, particularly in the areas of social identity theory and tactics suggested by Tajfel and Turner (1986) to effect individual and collective Professional Mobility.

A key conclusion is that the introduction of these novel forms of pedagogy within higher education, such as PBL, is not a simple process. It should be approached in a combined, integrated way where
the objectives of the institute are considered with the skills and ambitions of the lecturers and needs and requirements of the local student population. While it may be desirable to launch new courses with contemporary forms of pedagogy these must be fully teased out to understand long term implications for all parties, including the necessary investment in training and resources within the specific institute to support these programmes.
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DEDICATION

I would like to dedicate this thesis to my partner Deirdre and daughters Sarah & Laura.

My partner Dee who has always been at my side, for all her love and support, especially at those times when I needed her the most. Dee helped me greatly with great guidance and belief, usually delivered with lots of coffees and generally keeping me sane and grounded since this journey began. I really can’t thank you enough and love you loads.

To my girls Sarah and Laura, the best big and little girls in the world. Dad promises to have a lot more free time from now on and no more excuses to not come out on the trampoline. Love you both.
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Introduction

1.1 Introduction

This research explores the perceptions of learners engaged in a Problem-based Learning (PBL) programme from the perspective of power relations and social identity within one higher educational context in an Irish educational institution. It should be noted that the participants perceptions in this study are specific to the PBL-oriented programme they were enrolled in and cannot be generalized to other settings, however the questions raised by this research may be generalizable. Particularly, given the increase in PBL programmes in Ireland and beyond, the insights from this study can help inform educators working in this area and further expand the field of research in this area.

It is well established that the characteristics of PBL are viewed as being significantly different to traditional models of education in terms of structure and process as well as a more positive student experience that emerges from this more recent form of pedagogy (Czabanowska et al., 2012). While this may certainly be the case, not all researchers in the field of education agree that PBL is more beneficial in terms of delivering actual enhanced learning outcomes with tangible results when examined under content knowledge measures (Savery, 2006). Despite these concerns about the added educational benefit of PBL learning, there appears to be widespread acceptance that students of PBL programmes enjoy greater autonomy due to an erosion of the traditional student-tutor divisions and power relations (Savin-Baden & Howell Major, 2010).

Furthermore, where education has become increasingly commoditized and education providers are under increasing pressure to cope with funding restrictions from government sources, PBL has
provided one means of achieving distinction or differentiation from other “standard” or “traditional” forms of pedagogy. This degree of differentiation offers educational institutions the ability to position their programmes as being superior to those other courses that are not being run with a PBL ethos (Savin-Baden & Howell Major, 2010).

The aim of this chapter is to introduce the research area and provide a conceptual framework for the study. The background to the research is provided and the overall aims of the study are presented. In addition, the motivations for undertaking the project are outlined and an overview of the structure and chapter content is presented.

1.2 Background to the Research

Irish Higher Education is under pressure to provide industry relevant programmes of study (and the added need for these courses to be commercially viable for cash starved institutions). It has also become clear that PBL is increasingly seen as both vocationally and educationally a good fit in that it replicates practices in industry and achieves several educational outcomes and this has resulted in an increase in these types of courses. While PBL was developed originally within medical education to help cater for students dealing with complex learning scenarios, its application has spread widely from this base. The study of these types of teaching methodologies has received increased attention over the last few decades and there is increasing evidence of the introduction of these more contemporary and novel forms of pedagogy within recent years (Savin-Baden & Howell Major, 2010).

The proponents of Problem-based Learning (PBL) claim that it possesses several educational and employment advantages. These include greater student engagement, motivation and enjoyment
levels (Colliver, 2000), the facilitation of active learning techniques (Savin-Baden & Howell Major, 2010), greater collaboration levels (Leon et al., 2015), benefits through links with the real-world and high problem-solving outputs (Brush and Saye, 2008) and the ability to offer flexibility to students learning approaches and styles (Bowe et al., 2003). While the literature is replete with many advantages of PBL, there is less research that has explored student experiences of PBL in different domains and jurisdictions. Further, given the clear benefits that PBL courses can provide, the question arises whether they result in greater student autonomy and erode the traditional divisions between students and staff. For that reason, this study aims to uncover the answers to some key questions which are outlined in the next section.

1.3 Aims of the Study

From the onset, this research focused on understanding the student perceptions of a particular PBL-oriented master programme at postgraduate level in a specific third level educational institution in the Republic of Ireland. While this was the initial objective, the research quickly uncovered statements of positionality indicating a strong group identification with their cohort and evidence of the students’ awareness of techniques of power evident during their educational experience. Since these issues had not been explored within the higher education literature to date in relation to PBL, it was decided to explore these aspects further. Based on this, the research shifted to focus on identity, in particular, aspects of group identity. In addition, to pursue the issue of power in more detail, the research also examined power related theories, specifically techniques of power evident in educational settings. Furthermore, the research examined the ways students identify with their programme of study and what techniques do they employ to differentiate their PBL programme of study over and above other programmes. For that reason, while the research
initially aimed to focus on the students’ broader perceptions of the programme it subsequently narrowed to looking at issues of power and identity. Specifically these questions were:

1) What techniques of power are evident on a specific PBL-oriented programme as perceived by the participating students?

2) From the perspective of Social Identity Theory, what techniques are used by the students to create a cohesive group identity and to distance themselves from other groups?

1.4 Motivations for Engaging in the Study

This research was driven by the researcher’s own professional interests. I am a full-time lecturer in a third level institution in the Republic of Ireland (ROI) and I am engaged in delivering lectures to both undergraduate and postgraduate students registered on full-time and part-time programmes. The majority of teaching I am involved in would be described as traditional in nature but in recent years has become more active in alternative teaching methods and within this capacity I am involved in the delivery of a master programme run through a PBL ethos that is open to both full-time and part-time students within the Institute. Prior to becoming a lecturer, I worked in various business-related roles in industry for over 12 years and gained valuable experience from a commercial perspective that has helped shape my views and perspectives as a lecturer.

It was through my experiences as a student at both undergraduate level and master level that prompted my engagement with newer, more novel forms of pedagogy, believing that student engagement with traditional forms of teaching appeared to be lower than anticipated. It was through my teaching on this PBL master programme that encouraged further research into this form of pedagogy, and in-particular the students’ experiences of it. While the initial goal was to
look at student perceptions while enrolled in a specific PBL-oriented programme it became apparent that two key issues that began to emerge after reviewing the interview transcripts were the power and identity implications as perceived through the student. It was only after examining their expressed views that the two perspectives really emerged. It was surprising to me that the participating students in the research seemed to demonstrate very strong feelings in terms of the perceived power imbalance in favour of the lecturer and the strong sense of inferiority they felt as students. Prior to this I had believed the PBL offered students a much more balanced and empowering model of learning. The comments made by the students during the interviews were strongly at odds with this view. Based on this the literature was examined to identify suitable academic frameworks that could be used to map these statements and views. These findings appeared to be at odds with the extant literature in Problem-based Learning (PBL) and one that piqued interest. In addition, the use of strong statements of positionality by the students during the interviews resulted in the researcher examining this area in detail and the research unearthed links with identity theory that were further explored. Within the research it was found that the notion of identity began to emerge very strongly, and an academic framework was identified to help explain and frame these statements made by the students.
1.5 Research Structure Overview

The research undertaken in this study was carried out using a combination of secondary (desk research) and then primary methods to ensure that all relevant sources were included and drawn upon. With regards to the secondary research this is outlined in the Literature Review Chapter which constitutes the efforts made to identify, explore and review all relevant published materials within the area of third-level education, Problem-based Learning and Social Identity Theory. While Problem-based Learning is a relatively new field of pedagogy, sources and materials dating back to the 1960’s was identified and reviewed, particularly those that had a focus on its application within the third-level education sector and specifically within the business discipline. This material was useful as a means of charting the development of PBL from its creation in a medical school in Canada to its spread to other disciplines such as engineering and the social sciences. While not all researchers agree on the effectiveness and benefits of PBL, there are broad areas where most agree this form of pedagogy does deliver tangible results. These areas of agreement and divergence in terms of researcher opinion are explored within the literature review chapter. In terms of social identity theory there was a significant quantity of materials dating back further due to its earlier adoption and these are also outlined in the literature review chapter. The foundational researcher in this area was identified as Henry Tajfel, who suggests that the groups that people belong to act as an important source of pride and self-esteem (1979). Further, these groups gave the individual a sense of social identity, a sense of belonging to the social world. Interestingly, it was found that overlaps existed across both power and social identity and that this helped explain student behaviour in the research.

The next step involved conducting interviews which were semi-structured in nature with a sample of the student population on the programme. A total of 20 students that had graduated from the
programme were identified and of these 16 indicated a willingness to engage with the study. Of these 16, 3 withdrew due to travel and personal reasons and the remaining 13 were successfully interviewed over a four-month period. These semi-structured interviews were audio recorded and transcribed verbatim before analysis was commenced using themes that emerged strongly from this bottom-up exploratory approach. In terms of frameworks to help map these themes and student responses, the literature was explored, and several possible models identified and then two key ones selected and applied to the findings as a lens to interpret the data. The two selected included Gore’s (1995) *Techniques of Power*, and Tajfel and Turner’s (1986) *The Social Identity Theory of Intergroup Behaviour*. These frameworks were very useful as a lens through which the researcher could interpret and map the comments made by the students during the in-depth interviews and assisted in forming the basis for synthesizing the findings later in the research. It is these findings that help unlock key insights into the part-time postgraduate student experience of Problem-based Learning (PBL) in the Republic of Ireland viewed through the context of power and identity that will greatly assist education practitioners in understanding the role and life of the student within these types of novel programmes. At the very least this research will serve as a guide to help explain part-time student behaviour within third level education and suggest that these students must be carefully considered and viewed as being significantly different to their full-time equivalents. The next chapter, the Research Setting, outlines the context of the study and where it was applied.
Research Setting

2.1 Institute Overview

The Institute is relatively small with a total student population of approximately 8,000 and a staff body of around 360. The Institute campus is spread over several different locations within the local city and wider region and caters for courses positioned at HETAC Level 6 (Certificate) through to Level 10 (PhD) whilst also providing craft apprentices and continuing education. The Institute also offers a business incubation center aimed at start-up commercial organizations and has been very successful in this regard in recent years. While dating back over 150 years it has changed name on several occasions and is quite highly respected within the local and regional educational community. The institute prides itself on offering a well-rounded student experience including clubs and societies, drama, music and sports activities as well as providing some limited student accommodation nearby. The institute promotes a policy of active learning within its courses and encourages staff to develop new programme materials and engage in lifelong learning. Most students currently enrolled in the Institute are on a full-time basis and between the ages of 17 and 22 years with most undergraduate programmes seeing about 10% of mature students enroll. The next step describes in detail this specific PBL master programme that the participating students graduated from in terms of overview, structure, typical cohort size and how the projects are identified and structured by the lecturers. In addition, detail is provided outlining the orientation of the programme from a pedagogical perspective. This will help orientate the reader and assist in pointing out differences between this master programme and other taught programmes that may exist.
2.2 Programme Overview

The research that was undertaken as part of this thesis was focused on students that had graduated from a business Level 9 master programme run through a PBL ethos with a duration of one year (full-time) or two years (part-time) in a third level institute in Ireland.

This programme is considered a flagship course within a progressive faculty and department responsible for several new course developments within the past ten years and plans to create further programmes. Within this academic environment programme development is encouraged and research conducted into new teaching approaches is promoted and rewarded through recognition. The staff that are responsible for lecturing on this programme have for the most part been involved with it since its inception approximately nine years ago and are quite dedicated to its success and sustainability. The staff are all full-time lecturers within the Institute and are all educated to HETAC Level 9 standard. All lecturers possessed significant industry experience prior to joining the Institute and undertake regular continuous professional development that is available both within the Institute and through external sources. In additional, the lecturers possess strong industry links that enables a steady stream of potential client companies willing to work with the students on the programme.

Typical student intakes into each cohort are 12-14 on the full-time programme and 10-12 on the part-time with a strong mixture of international students mainly within the full-time cohorts. Typically, the full-time students have just completed an undergraduate degree in business or a related discipline and are aged between 22-25 years with a relatively equal mix of male and female students. With regards to the part-time students they are normally over the age of 27 and in full-time employment in business related roles within the region. The full-time students attend college classes Monday to Friday from 9am-5pm with approximately 19 hours of lecture contact.
time scheduled each week. Those students that are participating on the part-time programme are attending the Institute one evening each week (Wednesday 6:30 – 9:30pm) for a three-hour session and one Saturday each month for eight hours over a two-year period. Each class room based session involves facilitator support and guidance through the various steps of the PBL process with each student attending class room sessions across six mandatory modules over the course of two semesters, three modules per semester. These modules include the following;

**Semester 1** - Consumer Behaviour & Relationship Management, Branding & Commercialisation, Business Management Strategy & Innovation.

**Semester 2** - Integrated Marketing Communications (incl. New Media), Financial Analysis for Management Decisions, Research Methods.

This master programme was designed to prepare students for the demands of real-life marketing and management positions in a rapidly changing, knowledge-based economy and is structured to support extensive student participation and team activities. Participating students are encouraged to solve problems set in a real world framework that involves; extensive group work, complex problem solving, engagement with ‘real world’ scenarios, discovering new knowledge and self-directed learning.

This programme employs a learner-centered instructional philosophy, namely Problem-based Learning (PBL) whose aim is to prepare learners for the demands of real-life business roles in a rapidly changing, knowledge-based economy. In a PBL environment, learners are encouraged to solve problems, which are set in a real-world framework. The deliverables for PBL students vary based on the problem they are faced with and may include outputs such as; reports, presentations, web pages, news items, posters, manuals, research papers and models. Each year students are required to complete one case study & three external client based assignments with no exams.
These assignments (referred to within the programme as “problems” or “projects”) are designed by the academic staff to mirror the types of situations students are likely to encounter when they graduate and involves relatively high degrees of contact with outside client organizations. Each of these assignments span the three modules each semester that students are required to complete within this programme with the classroom sessions designed in such a way to cover new knowledge in addition to helping students progress through the various PBL steps with facilitator support. Each classroom session is divided up into one hour of new knowledge dissemination and two hours of facilitation of the PBL steps by a programme lecturer. In this way students are allocated dedicated time within each classroom session to work within their group (with facilitator support) and the modules act as pillars of knowledge to provide students with the core material to assist with finding solutions to the assignments. In this manner, students work on assignments during each classroom session without a dedicated focus on any particular module. The students draw upon this knowledge over the course of the lifespan of the assignments. Typical project activities include; marketing audits, feasibility studies, business plans, online review for organisations, market research, service offering review, store audit, new venture consultancy report, new product design, marketing communications plan, PR strategy and innovation audits. See Figure 2 for an example of a recent project completed by the students on this programme.

The outside companies, or client partners are a mixture of Small Medium Enterprises (SME’s), Multi-National Corporations (MNC’s), start-ups, sole traders and non-profit organizations (charities). These links with industry contacts are deemed to be of high importance to students and offer significant opportunities for networking both for the recent undergraduates who are studying full-time and indeed the students participating part-time but are typically working on a full-time basis.
2.3 Pedagogical Approach

This model of pedagogy involved the learning process taking place in small groups of 3-5 students normally and each student is allocated to a group by the participating lecturers on the programme. Each student group is assisted during the facilitation sessions and each lecturer’s role as a facilitator is to act as an advisor offering direction but also ensuring that students are seen to follow the established PBL steps. With regard to the full-time students, they are required to attend two 3 hour facilitation sessions in each of their three modules. These sessions are designed to introduce the learning required for the completion of problems. In terms of the part-time students they are required to attend classes for 3 hours per week and 7-8 hours on Saturdays.

As mentioned previously this course was created to be run through a PBL ethos that as suggested by Savin-Baden and Howell-Major (2010) sought to utilize the majority of the core aspects of PBL such as group formation, problem design and assessment of the process as well as assessment of the product created by the students. The PBL process incorporated into this programme was based on the 7 Step Model adapted from the model created Savin-Baden and Howell Major (2010) in their publication titled “Foundations of Problem-based Learning” and offered significant benefits to both staff and students such as flexibility in terms of adaptation, user-friendliness and simplicity of process.

This model was used throughout the programme by the lecturers for each of the various problem scenarios presented to the students. This model (see Figure 1 below) is explained comprehensively during the induction period provided for these students and applied to case studies (such as Nissan Micra and Tata Nano – see Figure 3) during this early period to help students grasp the fundamentals of this particular PBL process. This model was adapted from the original in that Step 5 – Feedback and Application of Knowledge was altered to include a greater emphasis on feedback.
to the lecturer prior to application of knowledge. This process consisted of the following steps which are explained in detail below with some examples of relevant activities carried out by the students at certain stages of the process. In addition, the Redfaire problem specification (Figure 2) is applied at each step of the process to help link the individual stages to actual activities carried out by the students. It is important to note that while this case is used to help explain each step in the PBL process it is used as an illustration guide only and any sensitive client information has been omitted.

Figure 1: 7 Step PBL model adopted by academic staff within the master programme.
Step 1 – Clarify the problem and facts

The first step in this PBL process involves the development of a group consensus of the facts provided. This initial step performed by students can be described as establishing “what we know.” Here, each group of students list the facts that are available to them and this represents an essential first step in establishing the basis for future thinking about the problem. During this first step, one member of the group is designated to be the scribe or recording secretary and will record the group’s activities and group members work together with facilitator support to identify what facts may exist.

Aims:

• To engage all members of the group & to focus students on the task

• To start the process of learning, encourage clarity in the use of language and business terms

• Provides a definition for any term whose unfamiliarity is an obstacle to group work

Process:

The students are required to read through the problem and identify words whose meanings or pronunciation are unclear. During the reading, several group members may hear or read text differently and an important discussion ensues to generate a group-based consensus on what the writing says. The scribe plays a critical role in this process by noting the items agreed upon by the group. The scribe records these facts for the group ensures this is an accurate reflection of both the details of the problem specification and the specifics of the facts identified by the group members.
Facilitators on this programme reiterate that failure to note relevant facts can lead the group to neglect information that may be important to subsequent steps and analysis of the problem.

In terms of the Redfaire case (Figure 2) this step entails the group ensuring they fully understand the basics of the problem definition and develop an understanding of the market environment that the client organization is situated. It is likely that not all group members are familiar with the Accounts Payable (AP) automation market in Ireland and the UK and this step helps these students develop an initial level of knowledge of this area which is used as a basis for future steps in the PBL process. This stage can be considered a “fact-finding” phase to allow all group members understand the key areas that will come under focus for the client organization. These key areas include:

- Carry out detailed research into the AP automation market segment in terms of size, scale, value, technology and trends that are available through secondary research methods. This would include data covering segment growth, attractiveness derived by margin rates and customer loyalty trends in existence.

- Conduct a competitor analysis of the three key players within this market segment with a focus on establishing facts surrounding these organizations and the various strategies they adopt within the marketplace. These three competitors are identified by Redfaire at the outset and provided to the students who then conduct desk research into these organizations which would include their relative size, number of employees, sales revenues, marketing strategies, growth records and use of technology.

- Advise Redfaire on the various ways that the organization can advance its commercial position over the coming 6-18 month period relative to the competitors identified
previously. By keeping a focus on this objective in particular while establishing the facts and “what we know” it allows the students gather the data knowing the overarching objective of the client organization.

By ensuring that each student fully understands the problem specification in terms the objectives and expectations of the client organization at the outset is helped greatly by establishing the facts during this very important step in the PBL process. Within this step it was found that most students understood the basis of the AP automation market and how it operated but had very little knowledge of who they key players were or what new trends or technologies might be emerging. This lack of knowledge was proved useful as it demanded a detailed examination of published sources by the students.

During this stage of the PBL process it is highlighted by the facilitators that knowledge is never 100% complete, that a certain information gap always exists where unlike a case study scenario the students cannot know everything about every aspect facing the client. This aspect of PBL is very important for students to grasp as it relates to the real-world where information gathered is rarely ever perfect and complete. Before moving on to step 2, each group meets with a facilitator who views the research completed and assesses the readiness of the group to progress. While not common, there are occurrences where groups are instructed to conduct further research as part of step 1 as it is believed they have not addressed this step adequately.

(Dialogue continues in this way until all terms are understood by all group members and those terms that need clarification are identified)
Step 2- Generate ideas

The second step in the process of investigating a PBL problem is the generation of ideas / hypotheses that could explain the problem outlined in the problem specification. Students are encouraged by the facilitator to consider this “thinking” step as the most critical in learning using a PBL methodology. This process revolves around the question “What do we think?” about the processes and causes underlying the “facts” of the project. Idea generation does not begin until the group has developed an understanding of the facts and each group should generate ideas that encompass or link each of the significant facts previously identified.

Aims:

• To define the task ahead, engage the whole group & stimulate intrinsic interest

• To broaden the horizons of the discussion, provide a crude framework and starting point for the rest of the discussion

• Draw existing knowledge out of memory, apply it and form test links between items of knowledge

• Encourage deeper thinking by analyzing and synthesizing recalled knowledge

• Pool the knowledge of all group members, streamline and organize the list of items identified
Process:

In this step it is suggested to students that this should be a fast moving yet involved analysis that represents the group’s ability to critically think about the problem and contribute their views and thoughts. It is important that all group members feel comfortable to raise whatever points they feel relevant and not be inhibited by thinking there is a right and wrong answer. Groups are encouraged to tackle this step by drawing a ‘mind map’ or spider diagram on a white board. This step is vital because it is where students make the link with previous learning and start to draw on each other’s understanding. Students are encouraged by the facilitators to be cautious and not to rush on to define (often unmanageably large) chunks of learning. They are reminded to be disciplined to address each theme explicitly and ask if there are relevant outcomes relating to that theme. This step normally ends with a list of possible hypotheses or ideas.

Taking the Redfaire problem specification (Figure 2) into account the students attempt to define the objectives of the assignment based on the facts established in step 1. One of the first pieces of information established is whether this market is growing or shrinking, thus is it a viable market for Redfaire to be active in the medium to long term. Also, was anything identified in step 1 in terms of new or emerging technologies that would help form the basis for advice provided to Redfaire by the students. Might there be evidence available within online forums or technology news sites involving the amalgamation of competitors in the form of partnerships, joint ventures and/or takeovers.

Another key aspect to step 2 involves the pooling of previous knowledge that might exist within the group around the AP automation industry. It is common that regardless of the industry a client is situated that there are a number of students in the cohort who have direct or indirect experience accumulated due to previous or current work experience. This step helps identify underlying
knowledge within some members of each group that is shared with the other students. During meetings with facilitators it is encouraged that this previous knowledge possessed by students is checked to ensure the knowledge is valid and up to date to avoid incorrect information being used as a basis to future decisions. One aspect that proved very useful for groups during this assignment was the previous experience of students from sectors such as the hospitality and mechanical engineering industries that offered interesting insights into potential solutions that might be developed in later stages. During this important PBL step students are encouraged by the facilitators not to “rush to solutions” as it is very likely that further research will need to be conducted before potential solutions are identified and tested for appropriateness.

Similarly to step 1, each group meets with a programme facilitator before they are permitted to move beyond step 2 into the next stage of the PBL process.

(Students are reminded by facilitators that discussion should continue until a list of ideas or hypotheses that are key to making a final decision have been drawn up)

Step 3 – Draw up learning needs

The third step in this PBL process is the determination of “learning needs.” These are the topics that will provide the information to evaluate the ideas generated. Learning need determination addresses the question, “What do we need to know?” The determination of learning needs does not begin until the group members have completed the generation, grouping, and prioritization of their ideas. With facilitator guidance, the group identifies learning needs sufficient to allow an evaluation of every idea that was given a high priority by the group. The information acquired by researching the learning needs will represent new facts for the group and thus allow the students
to evaluate the validity of their ideas. The learning needs are linked to the problem under investigation through the ideas and thus the “problem” remains the focus of learning. The group continues to refine the learning needs as this stage continues.

**Aims:**

- To actively process and restructure existing knowledge, define the learning agenda in terms of knowledge and skills
- Define appropriate resources for self-directed learning, learn from plenaries, lectures, and other resources

**Task:**

In this step it is normal that students will quite readily identify the gaps in their knowledge that are related to their ideas. When a learning need topic is written it is useful for the group to link the topic to a specific idea or group of ideas so that it will be apparent how the new information generated by the learning need topic will be applied to the problem specification. As in other steps in the PBL process the scribe will record the learning needs suggested by individual members and agreed upon by the group. The group will often refine a suggested learning need topic to provide greater focus and more direct application to the problem. When the list of learning needs is complete, the group members should agree that these will help them evaluate all of the ideas they have decided to address. At this time the group may identify specific learning need topics that have highest priority and identify other topics that might be deferred pending additional information about the problem.

Within the Redfaire case (Figure 2), students identified quickly that one such learning need held by the majority was around the type of technology used by Redfaire (JD Edwards EnterpriseOne)
to create software solutions for their clients and how did this compare to their competitors. Once this was identified the facilitators notified Redfaire who arranged a teleconference with the students to answer a list of detailed questions created by the groups. It was found that most of the student queries were resolved during this session and that those few queries that were left outstanding be considered as outside the scope of the assignment as answers were not likely to be found. It was reiterated to the students that the information available in real life scenarios is rarely 100% complete and that a certain degree of ambiguity exists. The information gathered from Redfaire during this stage was very useful to the students as it helped identify what the key knowledge gaps were and how those that could be resolved might be. Again, at the closing stage of this step each group was required to meet with a facilitator to verify that there was a complete set of learning needs created which matched the discussions taking place within the group meetings.

**Step 4 - Resource collection and private study**

The fourth step in the PBL process within this programme is for the students to identify the resources or information necessary to meet the group’s learning needs. Subsequent to finding appropriate sources, the students understand the materials obtained and share that information with the group. This step in the process could be characterized by the phrase “finding what student’s need to learn” or indeed “self-directed learning”. The collection of learning resources occurs outside the group sessions and entails library research, meeting with experts, searching internet sources and other appropriate activities. This step provides the curricular content to the group, and through mastery of this content allows more in-depth analysis of the problem to occur. Prior to the beginning of this phase of the process, the group should reach a consensus regarding the time-frame for distribution of the material and the format for the material that will be shared.
Aims:

• To collect and evaluate information and resources needed to solve the problem

• To understand the quality and relevance of material gathered

• To prepare learning for reporting back to the group (learning packet)

Task:

Once the group has determined and assigned learning need topics, the students will leave the group session and research the topics for an appropriate amount of time. This is done either individually or in subsets of the entire group. Multiple sources can be used to find the material, including books, journals, expert faculty, and Internet resources. Students will first find the appropriate resource and then spend time learning about the topic. Thereafter, they will produce a learning packet or write-up that is circulated to other members of the group and to the facilitator. Each write-up should follow the format agreed upon by the group and include, if possible, all of the information the group previously decided should be included within that learning need topic. The members of the group and facilitator will review all of this material prior to the next group session. It is important that all members of the group devote time to mastering all the content so that the entire group can have informed discussions and can advance in synchrony to the subsequent part of the problem specification.

In the Redfaire case, this stage was relatively straightforward as the key knowledge gap was resolved by the client itself through the teleconference but students still needed time to absorb this material on an individual basis before returning to the group for the next stage in the process. Many
of the students researched and reviewed online materials such as tutorials that helped explain the software used by AP automation providers such as Redfaire and their competitors but also broadened their search to other industries that was outside Redfaire’s current scope of operations. This was useful to the groups as it helped them to interpret the client’s product and technology and then benchmark this against other technologies. The students reported that they found the Redfaire competitors online tutorials and published particularly useful in helping to understand their product offerings and which client sector these were oriented towards. In addition, the checking of attendance registrars of technology conferences helped to illustrate to the students which competitors were targeting which class of client. In the case of those students that did not possess prior experience or knowledge of the AP automation market this time was used in particular to develop this core knowledge before progressing to the next stage.

Step 5 - Feedback & application of knowledge

In the fifth step in the process of investigating a problem using this adapted process, the students apply the new knowledge gained through researching the learning needs to help them better understand the problem. This application of knowledge phase is intended to ensure that all the students understand the material and can use this new information to evaluate the ideas generated. This step in the process is characterized by the question “were the ideas reasonable?” The process of application is facilitated by a facilitator asking the students to reconsider their original ideas in the light of their new knowledge. In so doing, the students may re-prioritize their ideas or discard ideas completely. This step reinforces an important part of the learning process by emphasizing the importance of applying and organizing knowledge that may be used in future activities. In this step, students are reminded by facilitators to make sure they do not make notes blindly but know
the material in sufficient detail to engage in discourse. It should be a discussion in which they consolidate, challenge and enhance the knowledge gained from their private study and is not considered an opportunity to read information to others. Also, within this step students are actively encouraged by facilitators during classroom sessions to form study groups with others in their group or even outside of their immediate group if their objectives match. While this is not an absolute requirement within the PBL process used within in this programme, it is encouraged by the facilitators.

Aims:

• To consolidate knowledge by putting it into words and discussing it.

• To assist each other in understanding difficult concepts.

• To elaborate and enhance each student’s pool of knowledge: Sharing different answers to the same questions elaborates upon the learning of individual students and may produce a sum that is greater than its component parts.

• To critique and correct any misconceptions. Pooling information provides opportunity for students and the facilitator to correct each other, resolve conflicts raised by the literature found and add new learning.

• To define new questions and the limits of existing knowledge through critical reflection on the answers the group has found.
• To train students in the discipline of citing and being critical of resources. Students should start to be able to judge the validity of information by its source, critically appraise strength of evidence and learn “triangulation” of information by cross checking different sources.

Task:

After conducting a private study, the group returns to the next group session. Each student should come prepared to share the work they have done on each of the learning aims. The aim of pooling information from private study is to help each other with difficult concepts, to expand on each individual’s knowledge base and to identify areas where confusion or uncertainty still exists. There are two stages to the completion of application of their new knowledge. First, the group meets in an un-facilitated session to discuss the learning topics, reach a consensus on understanding, and apply the material to the problem specification. Second, the group meets with the facilitator to review the previous ideas and reevaluate their relative priority and importance for reaching a solution to the problem. All of the ideas from the previous session should be reconsidered at this stage. In the process of re-examining their ideas, the students should determine the limits of their knowledge and identify any gaps that continue to exist in their understanding of each idea.

Frequently the group will identify gaps in knowledge that require additional investigation. In such instances the group should generate a list of “post mortem” learning needs. The students may also generate new ideas based on their developing knowledge as they re-evaluate their previous ideas. These new ideas and new learning needs can be added to the lists generated during the subsequent part of the project. When the group members have evaluated all of their previous ideas and determined the remaining gaps in their knowledge, they are ready to proceed to the next part of
the process. Where new learning need be generated at the end of the problem, it is the responsibility of the students to continue their study independently.

Taking the Redfaire assignment into account it was found that a number of key assumptions made by students during step 3 in particular were inaccurate and incomplete in that not enough focus was placed on future growth opportunities for Redfaire using this technology for applications other than Accounts Payable (AP) automation. It was found that most groups had become fixated on the AP market only and had not adequately considered growth opportunities in other sectors where this software could be used for other purposes. Once the group meetings reconvened and started to share their individual research outputs this led to most groups identifying new sectors for growth opportunities that required new learning needs which had been considered out of scope earlier in the process. This initial finding was communicated to Redfaire and a decision made to conduct a limited investigation into these other opportunities that in some cases were outside of the initial scope of the assignment. In the instances where it was deemed that merit existed to pursue these opportunities these areas were added to the learning needs still outstanding and the groups started to engage with these. In addition, a number of online sources of information, particularly technology blogs were found to be misleading and in some cases entirely inaccurate. Also, the students learned to interpret the distinction between reliable posts made by Redfaire’s competitors and “propaganda” using their own company websites and other online fora. In a similar way to the earlier steps, the groups meet with a facilitator to ensure that enough progress has been made to merit progression to the next stage of the PBL process.
Step 6 - Deliverables and outcomes assessment

The final step in investigating a problem involves the group as a whole reviewing the material that has been covered. This period of reflection is critical for the final integration of knowledge since the students may not realise just what has been covered and how the topics are all related. This final reflection on the problem specification also allows the group to identify “lingering questions and unresolved issues” they have in addition to topics they would like to see covered in lectures.

Aims:

• To review learning

• To link all the topics covered to the actual problem through group discussion

• To evaluate the entire problem as it relates to important content areas

• To evaluate the progress of students’ learning and to reinforce the progress that has been made and to develop a structure for reflection on one’s own learning process

• To help students learn to see how the things they have learned fit into a relevant context, in this case the ever-changing body of knowledge they will need to draw upon as business professionals

• To ensure any deliverables required as part of the problem specification are ready for submission

Task:

At the midpoint of this stage each group is requested to complete a “dry-run” or mock presentation in an informal setting to highlight the progress they have made to date to a facilitator. This is
designed to assist each group by acting as both a sounding board and clinic to the group to sense check their findings to date and to assess their readiness for completion of the assignment. At the conclusion of this stage of the PBL process the facilitator / lecturer receives a submission that contains the particular deliverables specified for the problem. These include written submissions in addition to process flows, audiovisuals and group / individual oral presentations. It is the practice within this programme that representatives from the client organization are present for this student submission which normally is represented by a written report and group presentation within the Institute boardroom.

In terms of the Redfaire assignment, the students submitted a group written report for Milestone 1 and completed a group presentation for Milestone 2 which also included some of the aspects built upon from Milestone 1. The key points of these submissions included insights into the key competitors identified by Redfaire at the outset of the assignment that should be used to gain competitive advantage in the existing AP automation market segment in addition to the identification of new sectors that merit further investigation for expansion of the existing JD Edwards-based software. Mr. David Storey, Business Development Director, and two other representatives from Redfaire attended the group presentations within the Institute boardroom. Milestone 3, an individual student submission was a written report which encapsulated much of the data and learnings gained from Milestones 1 and 2 and involved each individual student developing their own strategy for Redfaire to advance its commercial position over the next 6 to 18 months. These written reports were sent directly to Redfaire to consult.
Step 7 - Self & peer evaluation

After all the steps related to the investigation of the problem are completed, the self and peer evaluation phase is conducted to evaluate the performance of both the individuals in the group and the group as a whole. Each student is required to complete a self-evaluation template and then submit this to a facilitator for review. There are no formal marks allocated for this stage of the PBL process, it is considered more a personal development step for students and communicated as such. In addition, each student is required to complete a peer evaluation report for the other members of his/her group. This is also submitted to a facilitator and where necessary any issues identified within these reports are discussed with the group to assist in their personal development. Again, there are no formal marks attributed to the completion of this report. Figure 2 (below) serves to provide an example of an assignment from the academic year 2017/18
• Research AP Automation market segment
• Conduct competitor analysis
• Consultation for segment growth

Consumer Behaviour & Relationship Management (30%)
Branding and Commercialisation (30%)
Business Management Strategy & Innovation (30%)

Group Size: 3 - 4 students
Time to run: 8 weeks approx
March 5th – April 27th 2018
Flex Students

Start Date: March 5th 2018

Task Summary:

Congratulations, your group has been appointed Marketing Advisors to Mr. David Storey, Business Development Director, Redfaire. Redfaire is part of Redfaire International, which is a Global Oracle ERP Partner, providing international rollout and deployment services across EMEA and North America. Redfaire International brings together the resources of Europe's leading JD Edwards partners as well as Terillium, a leading Oracle ERP partner in North America. Based in Park House, Athurs Quay, Limerick, Redfaire is keen to grow its presence in the AP (Accounts Payable) Automation market segment globally and has requested you to assist them with this objective. In general, AP Automation is a competitive market space, with a range of companies both national and international competing against each other to gain a dominant market position. Redfaire is keen to exploit the strong market reputation of Redfaire International in order to help win new clients within the medium to large range with turnover in the region of $100-500m per annum.

Specifically, David has requested your group to conduct secondary research into this market segment, complete a competitor analysis on 3 key organizations and lastly, to offer advice on how Redfaire can advance its position within this segment.

This project will involve the following 3 Milestones to be delivered; Milestones 1 and 2 are Group projects, worth 10% each and Milestone 3 is an Individual project worth the remaining 10%.

Milestone 1 (M1): Group Submission 10% (3 weeks)

Redfaire has conducted extensive research into the AP market segment in the last few years but would like this information sense checked by you. To this end, it would greatly welcome your group actively researching the global AP Automation industry with a particular focus on the key players (developers, vendors and customers), market trends, business strategies and key technologies. As part of Milestone 1, you will need to complete the following research, to
enable you to gain a clear understanding of the industry and Redfaire’s positioning within the marketplace:

- An audit of the current AP Automation market including any potential developments likely within this industry and customer segment data.
- Understand who are the key players in terms of software developers, software vendors, thought leaders, and the largest clients operating within this segment.
- Research the business strategies employed within this segment and what types of technologies are being developed by the main parties.

**Deliverables for M1: March 26th 2018**

- A brief report (3,000 words) of your research findings

**Milestone 2 (M2): Group Submission 10% (2 weeks)**

Based on your group submission for Milestone 1, you are now required to conduct an in-depth competitor analysis on 3 key Redfaire competitors. These 3 competitors will be provided to you at the outset of M2 by Redfaire and you will be expected to compare and contrast the four organizations using an approved competitor analysis framework to include the following factors:

- Channels to Market (in particular use of partners, online vs traditional sales)
- Use of Cloud in their Offerings
- Type of Commercial Propositions
- Key Sales Plays / Use Cases / Case Studies
- Geographic reach / market share / localizations / available skills (in house, partners)

**Deliverables: April 9th 2018**

- Poster format / Visual display
- Group presentation (10 mins)

**Milestone 3 (M3): Individual Submission 10% (3 weeks)**

Given the work you will have completed in Milestones 1 and 2, you are now required to provide well considered suggestions that are appropriate to Redfaire detailing how the organization can advance its commercial position within this segment over the next 18 months.

6,12,18 month high level marketing strategy for Redfaire to become Top 3 in their market. Recommendations for key marketing collateral & activities to reach;

a) Buyers
b) Influencers
Recommendations based on the perceived direction of the market to exploit opportunity / reduce exposure or risk.

**Deliverables** *April 27th 2018*

- Individual report (2,000 words total)

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**Company Information:**

Redfaire helps companies to build leadership positions by leveraging the power of Oracle technology. Specializing in Oracle ERP - JD Edwards EnterpriseOne, World Software and Oracle ERP Cloud — Redfaire helps large, multinational companies and ambitious SMBs to implement and optimize Enterprise Resource Planning systems across EMEA. Redfaire has offices in France, Ireland and the UK.

**Redfaire International - Implementing JD Edwards Internationally**

Redfaire is part of Redfaire International, a Global Oracle ERP Partner, providing international rollout and deployment services across EMEA and North America. Redfaire International brings together the resources of Europe's leading JD Edwards partners as well as Terillium, a leading Oracle ERP partner in North America.

**Technology - ERP, Middleware, Data, BI, Mobility**

Redfaire helps companies to drive down costs and improve productivity by delivering advice and expertise in ERP, Electronic Content Management, Environmental Reporting, CRM, Business Intelligence, Data Purge and Archive, SaaS and Mobility.

**Services - Oracle ERP Implementation Services**

Redfaire has the skills to take ownership of your entire Oracle JD Edwards or Oracle ERP Cloud project or we can provide you with expert resources to supplement your already experienced team. Our certified consultants have deep industry experience and bring both technical and business expertise to your implementation project.

Redfaire offers a full suite of software implementation solutions including:

- Oracle JD Edwards implementation
- Oracle ERP Cloud implementation
- Oracle JD Edwards accelerate implementation for midsize companies
- Upgrades
- Oracle JD Edwards SaaS, Cloud & Hosting solutions
- International JDE Core Model Rollouts
- Oracle JD Edwards ERP Data Purge & Archive
- Oracle JD Edwards Mobility Solutions
- Business intelligence
- Support & Managed Services
- JD Edwards CNC

**Why Redfaire?**
Commitment & Accountability
We guarantee that you will always have direct access to senior management. Our goal is to build a deep, mutually beneficial partnership with you. Our consultants are there not just to offer you technical expertise, but also honest, objective, and experienced advice.

Our Team
Our consultants are the leading experts in their fields across industries and business functions. They are far more than just product experts. Their goal is to become your advisor, to anticipate your needs, and to speak up when they see that there is room for improvement. At Redfaire, staff turnover is very low. This gives our consultants time to really get to know you and your business.

Technology Leadership
We continually invest in research and development in order to help you stay one step ahead of the competition. We search out the best solutions for your business and when we don’t find them, we build them ourselves. For example, we couldn’t find a satisfactory purging and archiving solution for JD Edwards so we developed ARCTOOLS, now the leading purging and archiving tool for JD Edwards.

Local Knowledge, International Reach
Our local offices proactively share best practices to ensure that you continually benefit from the experience and country-specific knowledge of our international network of consultants. To guarantee global coverage, where we don’t have a local office, we partner with companies like ourselves, leaders in their field who place a premium on outstanding customer service.

Learning Outcomes:

Students will be able to:
• Ascertain, analyze and report on the various methodologies used to understand relationship management.
• Critically discuss the links between relationship management and sustainable competitive advantage.
• Examine the theoretical domains in relationship management and related disciplines for use in studying the behaviour of consumers.
• Assess past research which has led to the advancement of the understanding of the management of relationships.
• Communicate and present effectively in various situations.
• Set clear project objectives, effectively manage tasks and time, lead projects and manage group dynamics.
• Critically discuss and evaluate a range of conflicting views of the principles of business planning, innovation and strategy design, implementation and evaluation.
• Identify and discuss how individual disciplines are integrated into overall strategic planning and innovation.
• Identify and allocate resources required to implement plans, strategies and innovations.
• Evaluate cross-functional plans, strategic decisions and innovations in the short and long term.
• Critically discuss branding strategies and the decisions companies make in building and managing their brands.
• Make decisions regarding individual products and services, product lines and product mixes.
• Critically evaluate the strategic functions of branding and the importance of branding as a differentiation device.
• Assess past research which has led to the advancement of the area of brand management.
• Assess how organizations manage products throughout the product lifecycle.
• Evaluate the role that packaging and labelling play in developing effective product strategies for organizations.

**Marks:**
Consumer Behaviour and Relationship Management (30%)
Branding and Commercialisation (30%)
Business Management Strategy & Innovation (30%)

**Marks breakdown:**
Milestone 1 Group Marks 10%
Milestone 2 Group Marks 10%
Milestone 3 – Individual Marks 10%

Evidence of PBL Process – 9% across each module
Report content – 15% across each module
Presentation - 6% across each module

Figure 2: Example of later stage client project - Redfaire.
Facilitator and Student Roles:

The following table attempts to articulate the various roles performed by staff acting as facilitators and students performing the roles of Chairperson, Scribe and Team Member in the adapted PBL process run within the master programme in the Institute. The facilitator role is considered key to the success of this programme and new lecturers joining the programme are encouraged to join an experienced facilitator working with a group to shadow them in this role for a number of group sessions. The new “trainee” facilitator is supported in terms of emulating the facilitator role and techniques as the group develops their facts, hypotheses, and learning issues. Then they are allocated time for any personal learning to develop potential solutions to the learning issues that have arisen. The trainee facilitator then meets with the experienced facilitator to identify and discuss potential solutions to the student’s problem. This initial training session is designed to allow the trainee facilitator to engage with the very nature of the Problem-based Learning process and experience the knowledge construction process. This session also allows experienced facilitators to test and model effective facilitation techniques so that the trainee appreciate how they, as facilitators, can influence the learning environment and the successful functioning of the PBL group. It is important to note that this shadowing period is not a formal training programme and it must be highlighted that this could be an inherent weakness within the programme as it currently stands.
Table 1: Title and description of the PBL roles, including primary duties.

<table>
<thead>
<tr>
<th>PBL Roles</th>
<th>Role Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facilitator</strong></td>
<td>The role of the facilitator is to facilitate group discussion is to create a healthy environment that allows all members to contribute to the discussion, provide feedback and monitor the group’s progress. The role of the facilitator is not to provide immediate answers and it is reiterated to students that there is no benefit in attempting to obtain potential solutions from the facilitators. Students are informed during induction and throughout the programme that for PBL to be effective they must arrive at the learning needs or objectives themselves and bypassing this part of the process will only be detrimental to their learning. The PBL facilitator is present not necessarily to teach but to assist the group members in learning for themselves by guiding students towards the depth and breadth of a subject. The PBL facilitator in many ways is as much a member of the group as anyone else and it is important that students feel able to reflect on the facilitator’s role and contribution.</td>
</tr>
</tbody>
</table>

What students are informed to expect from a PBL Facilitator:

- Models behaviour that individuals within the group should adopt
- Promotes student interaction & guides learning within the group
- Motivates the students to learn & monitors the progress of each student
- Monitors attendance
| **Chairperson** | The role of chairperson is rotated between the group members and all group members are encouraged to experience this role as the skills the student can develop from chairing a group at this stage in their education could be invaluable.

The following directives seek to explain the nature of the role:

1. Agreeing the process for the group. It is the chair’s responsibility to ensure that all group members have agreed on how the session will be run, what tasks need to be achieved, what time is to be kept, what breaks will be taken, how discussion will be conducted. Ground rules are established that facilitate a positive group environment.

2. Introduces the problem scenario for discussion. It is critically important that all group members know what is to be discussed during each meeting and the role of the chair is to assist this and focus the group on the task. The chair is requested to help motivate the group members during the introductory discussion and be sure that every member is ready to begin. |

- Provides feedback to the course leaders and the course development team
- Helps students to identify relevant learning resources
- Provides support and a first point of contact for academic or welfare problems.
3. Invites Participation. It is part of the chair’s responsibility to ensure that all team members feel involved and able to contribute. This participation also includes the facilitator who the chair is ultimately responsible for involving during the discussions. The chair is encouraged to not necessarily get people to talk more, but to talk less and to avoid the discussion moving off in tangents.

4. Stimulates and Provides Summary. The role of the chair also involves keeping the group motivated and stimulated. They are encouraged to help create upbeat and energetic group as much as possible. In addition to helping to stimulating the group, the chair is required to summarize outputs from each group meeting.

5. Elaborates or reformulates discussion. When opinions or ideas have not been clearly formulated or expressed it is important that the chair is encourages those who voiced them to elaborate. The chair will paraphrase or reword the topic at hand to help group members seek new direction in the same topic area while checking that the reformulation reflects the discussion and that everyone agrees with the content.

6. Monitor and pass observations on the process. Sometimes the group can get very involved and it may require the chair to pass observations on how the group as a whole is functioning. Say what you see happening in the
group, notice patterns such as „everybody is talking to me” or „everybody is trying to talk over each other”. The chair should also pass comment if they notice any problems developing. For example, if people seem to be annoyed with one person who is always talking too much then drawing this to the group’s attention can prevent problems developing. Passing comments on the “here and now” of the group and generating discussion about group dynamics can prevent members from arguing about the content of the assignments when there are really other issues bothering them.

7. Structure the session by bringing it and the stages that comprise it to a conclusion. Providing a commentary on where the group is within the process and checking with group members that each step has been satisfactorily concluded helps structure the session and ensures that all members agree with any conclusions made.

**What students are informed to expect from a PBL Chairperson:**

- Agrees the process for the group & introduces the topic for discussion
- Invites participation, stimulates and summarizes
- Elaborates or reformulates the discussion.
- Monitors and passes observations on the process & structures each group session.
**Scribe**

Similar to the role of Chairperson, students are required to rotate the role of scribe for each problem. The function of the scribe is to record an account of the group discussion and to order ideas and problems as they are raised. One of the challenges faced by the scribe is to ensure that as well as writing down the discussion, they are contributing effectively to it. The scribe is encouraged to be objective about what is being said and not ignore ideas and thoughts in favour of their own ideas and agenda. The account kept must be a true account of the whole group’s discussion. At the end of each group meeting it is the scribe’s responsibility to record the group’s learning needs. It is normal that as students gain more experience performing the role of scribe they find that it becomes easier to group and organize ideas and this in itself assists the efficiency and direction of the group work.

What students are informed to expect from a PBL Scribe:

- Listens carefully & notes down ideas and concepts even if perceived initially as trivial
- Organizes the notes by categorizing concepts, checks the accuracy of the notes with other group members
- Continues to contribute to the group & posts the learning needs to the group
<table>
<thead>
<tr>
<th>Team members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Although the chairperson will try to regulate the process of the meeting, each individual group member is encouraged to recognize their equal responsibility to contribute. Students are informed that PBL can operate effectively if all group members are committed to the task and the process but problems can occur if some students are disengaged or not contributing properly. Students are reminded that being a member of a group can be a rewarding but sometimes difficult role. While performing this role it is important for each student to try and develop the habit of regularly reflecting upon their own contribution to the group.</td>
</tr>
</tbody>
</table>

In terms of understanding the assessment structure that the students encounter in this programme, the following (Table 2) serves to offer a view into one of the six modules (Consumer Behaviour and Relationship Management) in terms of the allocation between group and individual work and the type of assessment typically undertaken. This typical assessment structure is common across all modules, the only exception being the Thesis module. It is important to note that the weighting towards the process as opposed to the product is significantly higher at the start of the programme to ensure that students and facilitators are placing an emphasis on the student’s understanding of the adapted PBL process, rather than the end product. This weighting adjusts as the programme continues so that towards the end there is greater emphasis placed on the product and less on the process. The understanding here being that the students have now managed to grasp the process and are using this to approach and provide potential solutions for each assignment. In addition, there is a significant weighting of group based assessments within the coursework that must be noted. This is normally established at 50/50% for most assignments but the weighting increases in
favour of the individual contribution towards the end of the programme. Please note that the Redfaire assignment (Figure 2) is based on the marking structure highlighted in Assignment 3 in Table 2 below.

Table 2: Assessment Structure per Module

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Group &amp; Individual (20%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>This initial assessment will measure students' achievement of, and ability to integrate, multiple module learning outcomes in a case study situation. Process: 70% Product: 30% Group: 50% Individual: 50%</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Group &amp; Individual [30%]: This is a major group project requiring students to prepare a consumer behaviour strategy or similar for a specific organisation. This assessment will measure students' achievement of multiple learning outcomes. A component of this assessment will assess individual student contributions. Process: 60% Product: 40% Group: 50% Individual: 50%</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>Group &amp; Individual [30%]: This is a major group project requiring students to prepare a relationship management strategy or similar for a specific organisation.</td>
</tr>
</tbody>
</table>
This assessment will measure students' achievement of multiple learning outcomes. A component of this assessment will assess individual student contributions.

<table>
<thead>
<tr>
<th>Process: 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product: 60%</td>
</tr>
<tr>
<td>Group: 66.6%</td>
</tr>
<tr>
<td>Individual: 33.3%</td>
</tr>
</tbody>
</table>

**Assignment 4** Individual [20%]:

This is an individual case study project requiring students to prepare a relationship management strategy or similar for a specific organisation. This assessment will measure students' achievement of multiple learning outcomes.

<table>
<thead>
<tr>
<th>Process: 80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product: 20%</td>
</tr>
<tr>
<td>Group: 0%</td>
</tr>
<tr>
<td>Individual: 100%</td>
</tr>
</tbody>
</table>

Over the course of the programme the students complete assignments and coursework for six modules consisting of:

1. Consumer Behaviour & Relationship Management
2. Branding & Commercialisation
3. Business Management Strategy & Innovation
4. Integrated Marketing Communications (incl. New Media)
5. Financial Analysis for Management Decisions
6. Research Methods
In the first semester the students complete the first three modules and normally, projects span the three modules and typically last in the region of 3-6 weeks but have extended up to 8 weeks in certain circumstances. The duration of the project depends on the needs of the client and the difficulty of the task at hand and involve the programme lecturers designing a problem scenario in line with the required learning outcomes of the programme (see Appendix 1) and with guidance from the client. These learning outcomes are used to guide both the selection and creation of new assignments in the form of problems or projects that the students are tasked with during the programme. The development period for each problem would normally require regular meetings and contacts with client company representatives over several months prior to the assignment commencing to agree the objectives, scope and deliverables of the project. A critical requirement of this process is that the problem or opportunity facing the client company must be real, authentic and within the parameters of the learning outcomes established for the master programme. This problem specification would include the essential components required for the students to start the assignment and provide details around group allocation, division of individual versus group work, marking schemes and additional reading lists. In this programme, the student effort in the first two assignments at the start of the programme is assessed giving a higher proportion of marks for the process followed rather than the product created by the students at the end of the project. This is designed to place focus on students adhering to the adapted PBL process at the heart of this programme.

For instance, the first assignment for each student cohort is normally a case study based on the module learning outcomes and the students are faced with a number of challenges concerning the
CEO or Managing Director of the relevant organization. See Figure 3 below for an example of a case study assignment used during the academic year 2016/17.

### Nissan Micra & Tata Nano

*Innovative marketing approaches within the Indian automotive industry*

<table>
<thead>
<tr>
<th>Consumer Behaviour &amp; Relationship Management (20%)</th>
<th>Group Size: 3-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branding, Product Management and Commercialisation (20%)</td>
<td>Time to run: 3 weeks</td>
</tr>
<tr>
<td>Planning, Strategy &amp; Innovation (20%)</td>
<td>January / February 2017</td>
</tr>
</tbody>
</table>

**Flex Students**

**Start Date:** Monday 16th of January 2017.  
**Finish Date:** Monday, 6th of February January 2017.

**Task Summary:**

"Nanomania overwhelms Indian care market".

You are required to work as a group to answer the following questions based on the Nissan Micra & Tata Nano case study provided to you in class.

Your answers should be submitted in a report format, maximum 2,500 words, by Monday February 6th at 5pm. You are then required to present your findings on Friday, February 10th at 10am. Please follow the PBL steps to complete each question.

**Consumer Behaviour & Relationship Management:**

1. How has Tata Motors chosen to incorporate the changing consumer profile within the Indian marketplace when launching the Nano? What lessons did Tata Motors learn from Nissan?

**Planning, Strategy & Innovation:**

2. What are the strategic objectives for the Micra and the Nano and what are the goals for each social media campaign? Looking at how effective both campaigns were, what metrics would you suggest to determine effectiveness and why?
**Branding, Product Management and Commercialisation:**

3. With regard to the Nissan Micra and Tata Nano, how is each brand positioned within the Indian market? How well does each campaign align with the goal you articulated for the campaign (above) and the brand’s positioning?

**Basis of Assessment:**

- 15 minute presentation with 5 minute Q&A session
- Group meeting minutes
- Group & individual learning needs identified
- Self-reflective reports
- Evidence of 7 step PBL process followed

**Learning Outcomes:**

Students will be able to:

- Critically discuss the links between relationship management and sustainable competitive advantage.
- Assess past research which has led to the advancement of the understanding of the management of relationships.
- Communicate and present effectively in various situations.
- Set clear project objectives, effectively manage tasks and time, lead projects and manage group dynamics.
- Critically discuss and evaluate a range of conflicting views of the principles of business planning, innovation and strategy design, implementation and evaluation.
- Identify and discuss how individual disciplines are integrated into overall strategic planning and innovation.
- Make decisions regarding individual products and services, product lines and product mixes.
- Critically evaluate the strategic functions of branding and the importance of branding as a differentiation device.
- Assess how organizations manage products throughout the product lifecycle.

**Marks:**

Consumer Behaviour and Relationship Management (20%)
Branding and Commercialisation (20%)
Business Management Strategy & Innovation (20%)

**Marks breakdown:**

- Evidence of PBL Process – 14% across each module
- Report content – 4% across each module
- Presentation - 2% across each module
For these initial problems the students are assessed based on a higher proportion of marks (70%) rewarding accurate adherence to the established PBL process being observed during classroom sessions and group outputs. In later assignments the proportion of marks level out and then reverse offering the students greater marks for the product that is created rather than the process that is followed. At this stage of the programme it is normal that the students have demonstrated a working knowledge of the PBL process and with continued support from the programme facilitators are following the PBL process successfully – hence the need to assess their adherence to this process is subsequently reduced. Students have been assigned tasks such as conducting an analysis of a specific marketplace to assess viability of a new product launch, carry out service encounter audits for retail and entertainment businesses, complete research activities to explore market segment characteristics and preferences, audits of the online presence and strategy of established businesses.

At the start of a client oriented assignment, a representative from the client organisation makes a presentation to the students introducing their organization, describing its structure and giving them an overview of their strategic direction planned in the short to medium term. In the case of the Redfaire assignment this presentation was conducted by Mr. David Storey, Business Development Director, on March 5th 2018 and the students had an opportunity to ask questions to help orientate their thinking. Over the course of the assignment they were offered further opportunities to provide questions to the company through the lecturers contacts with Mr. Storey. The termination of the
assignment would normally consist of the students submitting a combination of written work, reflective diaries, and a group presentation where both the client company representatives and institution lecturers are present. In this case Mr. Storey and two other representatives from Redfaire attended the student presentations. Then the grading of the student outputs is processed by the lecturers and the results provided to the students with detailed feedback explaining areas of strength and indeed opportunities where improvements could be made.

In advance of completing a review of the literature it was deemed important to review the researchers hegemonic assumptions as these can influence the literature that one values and reviews. With this in mind, the next chapter will introduce the researcher’s hegemonic assumptions before moving to the Literature Review Chapter in detail.
The Researcher

3.1 Hunting Hegemonic Assumptions

To understand the various influences over the researcher that may impact his interpretation of the data, the researcher identified key hegemonic assumptions that are in existence within his own professional experience and practice as a lecturer. Brookfield (1995, p.8) defines hegemonic assumptions as “those that we think are in our own best interests but have been designed by others who are more powerful to work against us; they have, however, become so embedded in our practices that we can no longer identify the oppression or disenfranchisement contained within them”. In terms of this researcher’s professional role and research carried out within this research they could be categorized as follows:

- Students value third level education and equate high grades with high job prospects. This assumption may be influenced by the researchers own childhood and proactively seeking role models within the workplace who appear to espouse the benefits of education and the strong links between success at higher educational and commercial or life success. In addition, the researcher “blossomed” academically relatively late in life, while completing a master degree so may be assuming that students that are enrolled in the PBL master programme might be attempting to do the same thing.

- Traditional teaching methods are outdated and largely ineffective and many students in traditional education are bored and disinterested. This assumption could be partially based on the researchers own educational journey during his undergraduate degree before he learned to apply theory with practice in addition to his experience as a lecturer where he
encounters undergraduate students that appear to reflect a similar view. Given that the researcher is actively engaged in teaching on this PBL programme it appears likely that this background does influence how he interprets the data emerging from this research.

- Grade inflation is in existence and students expect to be awarded higher grades than ever before without necessarily putting in the required effort to earn these higher grades. This could be driven partially by the researchers experience as a lecturer where it is his view that students do not appear to be investing the same levels of energy and effort into performing better while still seem to expect high grades than they deserve. Also, it could be created by a perception among lecturing staff that there is a greater demand from students at third level today to demand an explanation as to why they did not achieve top marks during assessments. Another aspect to consider is that this could simply be triggered by a perception that “in the old days students worked harder” and may not be based on anything other in terms of facts or evidence.

- While Problem-based Learning (PBL) is far from perfect it is significantly better than traditional teaching methods and active forms of learning greatly enhance the student experience. This is influenced by both the findings emerging from this research, in addition to the researchers own views based on personal experience when comparing his undergraduate degree (largely theory-based) versus his master’s degree (mixture of theory and practice). In addition to his own direct experience it is the researcher’s view that PBL is a highly beneficial form of pedagogy that is superior to traditional means of education in many ways.
• Retaining student interest in the module or topic will result in a deeper level of learning. The researcher believes that by requiring students to think deeply about a topic or problem will help them to internalize the problem and generate a greater level of involvement when it comes to generating a potential solution. This could be derived from his educational experience both at secondary and third level where material was simply learned rather than applied to a context.

• The more research that a lecturer conducts into new teaching practice techniques and teaching technology enhancements the better a teacher they will become. The researcher believes that continuous reading and research cannot really result in a negative outcome, it can only lead to positives. This could be driven by his own professional journey where change is continuous and similarly learning methods can change and new enhancements developed to the benefit of both the student and the teacher. The researcher believes in the idea of life-long learning and that one can never possess enough knowledge to the extent that learning can cease.

• Teaching is a valued profession within society in general. The researcher believes that teachers and educators in general are held in relatively high regard certainly within Ireland and that teachers are performing as role models within Irish society. The researcher believes, based on his own educational experience from primary school to university that while teachers in general are fundamentally respected, teachers that perform poorly can lose this aura of respect very quickly.

Having an appreciation and understanding of these assumptions will offer the researcher an insight into where he is coming from in terms of teaching experience and personal background in addition
to ensuring that the researcher may be aware of his own personal sources of bias. It may serve as providing a line of awareness used to explain the researcher’s interpretation of the data to emerge in this study and ensure clarity and fairness. For instance, it could be the case that I entered this research project hoping to uncover predominantly positive views from the students and that this might validate the programme that I currently am involved with daily. Could it be that my values of education are clouding my interpretation of the data stemming from the interviews conducted with those students participating in the study. Perhaps I am looking to see are these students taking their masters journey as seriously as I took mine? Also, considering my masters was the first time I had been awarded a first class honours in my educational journey to date, might I be viewing these students experience on this PBL programme in the same way. That they are participating in this programme for the same reasons that I undertook mine. These questions are important to consider as I interpret the findings that emerge from the interviews and ones that I have taken great care to unpack these assumptions and attempt to ensure objectivity as much as possible and avoid any undue bias. In terms of my interpretation of the interview transcripts, it is important to highlight that I have come from a particular-background as mentioned above and that this route within education has conditioned me in certain ways. While it would be unrealistic to suggest that the road travelled has left me bereft of its marks, I have attempted to remain aware of these influences and how they might manifest themselves within this research.

The next chapter, the Literature Review, outlines the current published material that relates to the two research questions identified and seeks to act as a repository of existing knowledge and substantive findings in these areas.
Literature Review

4.1 Introduction

Higher education has been long attributed with having a highly significant part to play in the development of modern society and preparation of students for the workplace (Välimaa and Hoffman, 2008; Department of Education and Science, 1995). In line with continuous developments in society, the practice of higher education has changed significantly as reflected by the practice of alternative ways to approach higher education in general and, in particular, effective teaching, learning and assessment Colliver (2000). The education discipline has witnessed a relatively recent departure from traditional modes of teaching, learning and assessment towards methods that are reputed to facilitate and develop higher levels of student involvement and engagement (Holmes, 2018). Problem-based learning (PBL) is considered to be one such method that many observers regard as not only resulting in greater student engagement directly in the process of learning, but also strives to increase self-directed learning amongst participative students (Czabanowska et al., 2012). Given the increased focus on and use of PBL in recent years, it is appropriate and timely to examine this phenomenon and provide a critical review of its adoption within higher education.
4.2 Origins of Problem-based Learning (PBL)

In comparison with most approaches in pedagogy, problem-based learning has only relatively recently become an established form of education. Since its inception in the 1970s, it became prominent through its adoption in prestigious Northern American medical schools such as North-western and Harvard (Gallagher, 1997). While it was in existence and gaining popularity for over a decade, it was first publicised in any meaningful sense, by Barrows & Tamblyn (1980) based on studies that they conducted into the analytical skills of Canadian medical students. PBL’s adoption was triggered by a perceived limitation of the typical lecture approach at medical schools in transmitting to students the required material that they were studying or indeed its “clinical application” (Barrows, 1994, p.6). It was also felt that this traditional approach to education was further impacted by a highly volatile environment in medicine which resulted in significant changes in the real world of practicing medicine (Savery, 2017). This new approach differed from traditional education in the sense that the focus was on the problem and using a defined process to help provide a solution. This in turn led to the adoption of this new form of pedagogy across a wide range of medical schools in the late eighties and nineties across the United States (Gallagher, 1997). In terms of developing an understanding of what problem-based learning (PBL) constitutes, it has been described as a model of learning within small groups that focusses on the problem itself. Based on its successful adoption and favourable teacher and student experiences PBL gained prominence particularly in Germany, Holland and the UK in Europe, as well as Australia and New Zealand before became a widely accepted instructional approach (Gallagher, 1997).

The constructivist philosophy developed in the twentieth century by Piaget (1997) and Vygotsky (1986) and pioneered by Dewey (2004) has been widely applied to teaching and learning methodologies. Regarded as a model of pedagogy with social constructivist underpinnings, PBL is an
approach that develops curriculum and instruction around carefully crafted “ill-structured” problems (Barrows, 1988). Under the guidance of lecturers acting as facilitators, students are encouraged to “develop critical thinking, problem solving, and collaborative skills as they identify problems, formulate hypotheses, conduct data searches, perform experiments, formulate solutions and determine the best fit of solutions to the conditions of the problem” (Ram et al., 2007, P. 1). Interestingly, Ram et al., (2007) states that the role of the facilitator in PBL programmes tend to be overlooked in terms of importance and contribution. Problem-based learning enables students to embrace complexity, find relevance and joy in their learning, and enhance their capacity for creative and responsible real-world problem solving. According to Schmidt et al., (2007) PBL addresses the need to promote lifelong learning with students through the process of inquiry and constructivist learning. They suggest that PBL is considered a constructivist approach in education due to its nature of collaboration and self-directed learning among students while being supported by tutor facilitation. Further, Hung (2003) elaborates on why PBL is considered to possess elements of a cognitive constructivist process. He states that firstly, within a PBL environment students engage in phases of discussion within their group which is designed to help activate their prior knowledge. Secondly, it is within their groups that they develop possible theories or hypotheses that might help explain the causes of the problem. Next, Hung (2003) states that as group members they identify learning issues that need to be researched and construct a shared primary model to explain the problem at hand. Within this stage the facilitators help provide scaffolding to help articulate the issues at hand. The next step involves the students working independently in self-directed study to research the identified issues. Then finally, Hung (2003) points out that the student’s re-group to discuss their findings and refine their initial explanations based on what they learned.
PBL is seen to follow a constructivist approach in education as it becomes clear that the role of the facilitator or lecturer is to provide guidance through the process of learning as opposed to just information dissemination (Hmelo-Silver et al., 2006). With this perspective in mind, it is seen that feedback and reflection on the learning process and group dynamics are deemed essential ingredients of a Problem-based Learning approach. Here, according to Hmelo-Silver and Evenson (2000) students are considered to be active agents who engage in social knowledge construction. Furthermore, Hmelo-Silver and Evensen (2000) suggest that PBL helps students in the process of establishing meaning and also to build personal views of the environment.

Perhaps as a consequence of PBL following this constructivist approach even at its early stages PBL adapted into several different forms (Boud, 1985) which depended on the type and the goals of the problem and the individuals responsible for developing it. During this period, it permeated from the medical education field through to most other areas of education such as business, engineering, information technology, science and law (Savin-Baden & Howell-Major, 2010). While on this journey it has been adapted and altered as education providers adopted some elements of the original but then both added and omitted others as they saw fit. To provide clarity, there have been several efforts made to develop a glossary or taxonomy of problem-based learning models, but these studies are considered to be relatively descriptive in nature and do not challenge the process and methodology with which these models have been developed (Kwan & Tam, 2009). While this has been occurring, researchers such as Barrows & Tamblyn (1980), Servant (2016), Wilkerson & Feletti (1989), Dewey (1938), and Kaufman (1989) among others, have been relied upon to provide a “respectability” for problem-based learning but did not necessarily link these methods to the original methodology (Servant, 2016, p. 11). Given its diverse origins and applications, it has proven challenging to identify one overarching definition of PBL.
4.3 From Traditional Education to PBL: Key Definitions and Perspectives

Problem-based learning (PBL) is described by Savery (2006, P. 12) as “an instructional learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem”. What is considered by researchers to be essential to the viability and success of this learning model is the creation of non-structured and loosely defined problem scenarios, which may span disciplines, in addition to the inclusion of a facilitator who assists the students by guiding them through the learning process and “conducts a thorough debriefing at the conclusion of the learning experience” (Savery, 2006, P. 12). Boud and Feletti (1997) provide a list of the practices that are viewed as being essential to the guiding principles of problem-based learning. In addition, Duch et al., (2001) describe the methods used by practitioners in PBL and the specific skills developed by those students that participate in this learning model. These skills include the ability to think critically, analyze and solve complex, real-world problems, to find, evaluate, and use appropriate learning resources; to work cooperatively, to demonstrate effective communication skills, and to use content knowledge and intellectual skills to become continual learners. In their 2002 study, Torp and Sage described PBL as focused, experiential learning organized around the investigation and resolution of unstructured, real-world problems. Further, Torp and Sage (2002) describe students in PBL run programmes as being engaged problem solvers, seeking to identify the root problem and the conditions needed for a good solution and in the process becoming self-directed learners. Hmelo-Silver (2004) described PBL as an instructional method in which students learn through facilitated problem solving that centers on a complex problem that does not typically have a single correct answer. From a review of the literature, a wide range of definitions and views are presented in terms of what constitutes traditional learning. Perhaps one of the most popular definitions
associated with conventional education claims that “is marked by instructor defined learning objectives and assignments, large-group lectures, structured laboratory experiences, and periodic multiple-choice tests of achievement” (Albanese and Mitchell, 1993, p. 3). Dewey (1938, p. 18), puts forward the view that the primary goal for traditional education is to “prepare the young for future responsibilities and for success in life, by means of acquisition of the organized bodies of information and prepared forms of skill which comprehend the material of instruction”. Furthermore, he states (p. 18) that this form of pedagogy “is in essence, one of imposition from above and from outside”, implying that power resides squarely with the lecturer. Similarly, according to Formosinho & Formosinho (2017, p. 33), the expectation is that the students will “obediently receive and believe” what they are told. In this environment, the academic staff control and direct the transmission of knowledge to the learner or student who assumes a passive role.

PBL by comparison represents a fundamentally different approach to teaching, learning and assessment. There are equally diverse definitions associated with PBL as reflected by two illustrative perspectives presented in Table 3 below. While there are indeed several commonalities with traditional education technique which may involve group activities and a degree of lecturer supervision, PBL presents at its essence a much higher emphasis on self-directed learning on the part of the student.
Table 3: Comparative Definitions of PBL (Adapted from Servant, 2016)

<table>
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<tbody>
<tr>
<td>The use of authentic problems for students to work on without prior preparation to achieve the required knowledge.</td>
<td>The learning process is divided up in the three central components: group-work, self-directed study and tutor-support sessions.</td>
</tr>
<tr>
<td>As problems are used as the starting point for learning the number of lectures is limited.</td>
<td>The course is best organized as a project to develop organizational and co-operative skills.</td>
</tr>
<tr>
<td>Students initiate their own learning whereby students work in small collaborative groups under the flexible tutelage of a tutor who guides the learning process.</td>
<td>The type of projects is highly structured and guided by the tutors, such that while remaining the property of the students, they correspond to the learning outcomes expected within the curriculum.</td>
</tr>
<tr>
<td>Students would have sufficient time for self-study (i.e. to study relevant literature on their own).</td>
<td>The assessment patterns have to be changed to reflect the change in pedagogy.</td>
</tr>
</tbody>
</table>

It is however, worth noting that Chng et al., (2011) place emphasis on the importance of using “problems as the starting point of learning” whereas the focus of the second definition by De Graaff and Kolmos (2003) is on the learning outcomes and skills which are enabled through PBL. These differences create very diverse “educational practices that are currently being thrown under the
umbrella term of ‘PBL’, often without much consideration of the deep-seated differences that underpin them” (Servant, 2016, p. 2).

Reflecting its origins in the medical field and discipline specific evolution and application, PBL has been studied within diverse bodies of literature (medical, engineering, business and general education), each of which emphasise aspects which reflect a specific disciplinary origin and focus. Perhaps one of the most long standing and widely accepted definition coming from the medical field is that put forward by Barrows (1985) who defines the problem-based learning educational process as “encountering the problem first, problem-solving with clinical reasoning skills and identifying learning needs in an interactive process, self-study, applying newly gained knowledge to the problem, and summarizing what has been learned” (p. 15). For the purposes of this research this definition could be used to help form the basis of PBL. However, it is important to note that other definitions exist that reflect the diversity of practice and the spread of PBL across many different educational disciplines.

For instance, also originating from the medical field, PBL has been defined by Wood (2003, p. 326) as:

“In problem-based learning (PBL) students use “triggers” from the problem case or scenario to define their own learning objectives. Subsequently they do independent, self-directed study before returning to the group to discuss and refine their acquired knowledge. Thus, PBL is not about problem solving per se, but rather it uses appropriate problems to increase knowledge and understanding. The process is clearly defined, and the several variations that exist all follow a similar series of steps”.

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More recently, Barral and Buck (2013) describe PBL as:

“..a pedagogical practice employed in many medical schools. While there are numerous variants of the technique, the approach includes the presentation of an applied problem to a small group of students who engage in discussion over several sessions. A facilitator, sometimes called a tutor, provides supportive guidance for the students. The discussions of the problem are structured to enable students to create conceptual models to explain the problem presented in the case. As the students discover the limits of their knowledge, they identify learning issues – essentially questions they cannot answer from their fund of knowledge. Between meetings of the group, students research their learning issues and share results at the next meeting of the group”.

By contrast, reflecting an educational management and leadership perspective, Wilkerson and Feletti (1989), state that a crucial aspect of PBL is that “the problem raises compelling issues for new learning and that students have an opportunity to become actively involved in the discussion of these issues, with appropriate feedback and corrective assistance from faculty members” (p. 53). Continuing under the banner of educational leadership, the lecturer or facilitator role in PBL is defined as “to guide, probe and support the students’ initiatives, not to lecture, direct or provide solutions”, (Kaufman et al., 1989, p. 286). Furthermore, PBL has been described as a model of education which involves “learning in ways that used problem scenarios to encourage students to engage themselves in the learning process” (Savin-Baden and Howell Major, 2010, p. 3).
Reflecting a business and project management perspective, Thomas (2000) refers to two studies (see Jones, Rasmussen & Moffitt, 1997; Thomas, Mergendoller & Michaelson, 1999) to define PBL as:

“Complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over extended periods of time; and culminate in realistic products or presentations”. (p. 1)

From a review of the definitions and perspectives of PBL development and application across various disciplines, it becomes clear that a research focus has been placed on two broad areas. The first area examines the nature of student learning achieved through adopting a PBL approach specifically comparing the quality and depth of student learning on PBL based programmes compared with student learning within traditional or non-PBL classrooms. It is clear that this research indicates that students in PBL programmes can learn at least as much as those students in non-PBL programmes as long as the problems or scenarios are carefully built around relevant and clear objectives (Gallagher & Stepien, 1996; Goodnough & Cashion, 2003), are delivered with clear thought (Van Berkel & Dolmans, 2006), and are well-constructed (Belland, 2010; Gallagher, 2009; Hmelo-Silver, Duncan, & Chinn, 2007). The second area of research focuses on the development of learning skills among students participating on PBL oriented programmes. Research in this area suggests that PBL can assist students in developing a variety of learning skills such as problem identification and solution finding (Gallagher, Stepien, & Rosenthal, 1992), collaboration, (Visschers-Pleijers, Dolmans, De Leng, Wolfhagen, & Van Der Vleuten, 2006). Perhaps one of the key findings in this area of research is that students in PBL programmes tend
to view learning as being much more engaging, satisfying and motivating (Hmelo-Silver, 2004). The next section reviews the forms or methods of PBL.

4.4 Methods and Applications of PBL

4.4.1 Project-based Learning and Problem-based Learning

It is important to note that there are many various models of PBL and how it is applied. It is heavily situated and context dependent as outlined by Czabanowska et al., (2012). Furthermore, differences in the physical learning environment will inevitably lead to differences in application as PBL practitioners set different problems based on changing goals and problem definitions (Boud, 1985). There is also a degree of confusion between problem-based learning and project-based learning as both models of learning share the same acronym in many cases. In terms of highlighting these differences it is important to note the following. Problem-based learning originated in the 1960s and is a teaching pedagogy that is considered to be highly student-centered. Within a problem-based environment, students typically learn about a topic through the solving of problems and normally work in small groups to solve the problem where, often, there is no one correct answer and situational ambiguity tends to exist (Savin-Baden and Howell-Major, 2010). According to Savery (2006, P. 12), “it empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem”. In contrast, project-based learning has its origins back in the work of John Dewey (1859-1952) and William Kilpatrick (1871-1965) and as a model of education dates back to 1918 when the term was first used (Schmidt et al., 2011). It is worth noting that project-based learning is an instructional approach where students typically learn by investigating a complex
question, problem or challenge. Within a project-based learning model, students are expected to explore real-world problems and find answers through the completion of a project or indeed a series of projects. Within a project-based approach, students are typically provided with detailed specifications for a desired end product (create plans for a new bridge, design a new website for the organisation, etc.) and the learning process that the student is part of is more oriented to following correct procedures as established by the lecturer (Savery, 2006). The staff running project-based learning programmes are considered more likely to be instructors and coaches (rather than facilitators) who provide guidance, feedback and suggestions for enhanced methods to achieve the final product or outcome. While project-based models are considered excellent learner-centered instructional strategies, the consensus among researchers is that they tend to reduce the role of the student in setting the goals and outcomes for the problem (Savin-Baden and Howell-Major, 2010). Within the context of project-based learning approaches when the expected objectives, goals and outcomes are defined, then there is much less requirement or expectation for students to establish their own. Savery (2006) suggests that this is a weakness inherent in project-based approaches as “in the real world it is recognized that the ability to both define the problem and develop a solution (or range of possible solutions) is important” (P. 16).

Importantly, in terms of student autonomy and control, within a project-based learning model, students are of course considered to possess a certain degree of control over the project they are working on, how the project will terminate, in addition to the end product that is developed but significantly less so overall then problem-based learning approaches (Schmidt et al., 2011). In this way, project-based approaches are indeed valid teaching models that seek to promote active learning and engage the learners in higher-order thinking such as analysis and synthesis (Savery, 2006). Further, a well created project example will help students understand the important
elements of the problem so that they may be better prepared in the future for similar situations. In addition, case-based learning can help learners develop critical thinking skills in assessing the information provided and assist in the identification of flaws or indeed unfounded initial assumptions.

As regards the key differences between problem-based learning and project-based learning, students who complete problem-based learning tasks in many cases share the outcomes and jointly set the learning goals with the facilitator or lecturer. In contrast, project-based learning is an approach where the goals are normally established in advance of the commencement of the project by the lecturer with little or no student involvement. In terms of the teaching approach adopted by the lecturer it tends to be quite structured in nature (Savery, 2006). Furthermore, project-based learning is very often multidisciplinary in nature, spanning a number of functional areas within a business context for instance and the actual projects tend to be more longer term. In contrast, problem-based learning is normally structured as being directed towards a single subject and the duration of the problem is usually shorter in length.

There are a wide variety of methods or applications of PBL including short lectures, case studies, life scenarios, problem clinics, workshops and student led forums (Barrows, 1985). Indeed, it is important to note that many lecturers and teachers may find that they use PBL methods in their everyday class rooms without being aware of it. The common feature within PBL however, is the focus on the problem where the students are required to engage with and propose a solution to a particular problem or scenario. Academic staff tend to use a mixture of these methods normally adapted to suit the problem at hand in addition to the level of experience and educational background of the students. There appears to be a high degree of flexibility in terms of the level of structure provided by the lecturer or facilitator (as they are commonly referred within PBL).
This structure may be loose and ill-defined to allow the student scope in how he/she approaches the problem, or it may be tight and well documented to keep the student carefully oriented. Schmidt et al., (2011) suggest that the problem actively engages the mind of the student, which helps arouse interest, and the student learns due to feeling intrigued.

4.4.2 Expeditionary Learning and Problem-based Learning

In terms of influencing PBL methods, Thomas (2000, p. 4) claims three “traditions” that have significance. Firstly, problem-based learning practitioners use techniques derived from Expeditionary Learning (EL) in that both methods “invariably involve fieldwork, service, teamwork, character building, reflection, and building a connection to the world outside of the classroom” (p. 5). "Expeditionary Learning" (EL) is a problem-based learning design that emerged from Outward Bound (OB), which was an educational programme administered through an adventure center based outdoors. EL activities are suggested to be "intellectual investigations built around significant projects and performances" (Udall & Rugen, 1996, p. 11). These “expeditions combine intellectual inquiry, character development, and community building” (Thomas, 2000, p. 5). Furthermore, Expeditionary Learning also includes elements of fieldwork which has also been taken on board by most problem-based learning teachers.

Secondly, it is clear that PBL practitioners have come under the influence of the early origins of problem-based learning, which arose from teaching improvements in Canadian and United States medical colleges. Identifying the problem and correctly diagnosing medical issues within a real-world context was considered essential in educating trainee doctor’s “hypothetico-deductive
thinking skills” (Thomas, 2000, p. 5-6). It is also noted by Thomas (2000) that PBL exercises have spread to both primary and secondary education (known as K-12: term for the sum of primary and secondary education, commonly used in the United States, Canada and Australia).

Thirdly, Thomas (2000, p. 6) refers to “cognition research” as being the third tradition influencing problem-based learning, which can be divided into four strands of research on 1.) “Motivation”, 2.) “Expertise”, 3.) “Contextual factors”, and 4.) “Technology”. It can be seen that studies in the area of motivation highlight that students who may accrue increased motivation levels by the learning of specific items of content material have a greater chance of remaining focused on activities at school than those students primarily motivated by completing tasks (Ames, 1992).

Further, Thomas (2000, p. 7) states that problem-based learning helps to increase the internalisation of content knowledge because it is structured “around collaboration, authenticity, and student-driven inquiry”. Furthermore, Blumenfeld, et al., (1991) suggest that activities that incorporate a PBL ethos can result in challenging, authentic, and student-centered projects which can benefit student engagement.

In relation to context, studies on experts and beginners demonstrate that for beginner students in problem-based learning to adopt the practices of experts, they should be positioned in environments allowing them to explore content in broadly similar ways to that of experts in the real world. Furthermore, there is strong evidence to suggest that students learn better through “situated cognition,” which refers to when their learning context resembles real life situations as much as possible (Brown et al., 1989, p. 5). An interesting point uncovered is that if students can apply in what they perceive to be a real world setting what they learned in a problem-based learning methodology, they tend to possess this knowledge for longer (Thomas, 2000). Further, Thomas (p. 8), outlines how using technology as a “cognitive tool” can help to make students aware of the
“knowledge formation processes”. Furthermore, technology has also been seen to raise authenticity due to the ability of students using specific software packages that are utilised by professionals in the work place.

There is a wide range of research into the various methods that PBL can use and the environments in which it has become popular. Much of this research is seen to promote the use of PBL through highlighting methods which have seen feedback from both students and academic staff. Such research also identifies how methods and applications of PBL can be augmented and improved. For example, after operating a PBL model of pedagogy for several years with decreasing levels of success, one of the main advocates of PBL, Maastricht University, conducted further research and refined their application of PBL leading to positive results and feedback. In this way, Maastricht adapted the PBL model and methodology to include several additional steps which they found to be more effective (Czabanowska et al., 2012, p. 3). Having reviewed various PBL applications and methods, the next section will review the impact of PBL on educational outcomes.

4.5 Impact and Effectiveness of PBL

Problem based learning has made a significant pedagogical impact within higher education, particularly within the disciplines of medicine and engineering, while, in recent years, it is also enjoying a high level of adoption and impact in other disciplines such as business and information technology (Barral & Buck, 2013). As discussed earlier, the PBL approach is different from traditional forms of pedagogy in that it is primarily focused on exposing either real or notional problems or scenarios and facilitates the use of active learning techniques to uncover potential solutions. Consequently, as a whole, educators across most disciplines have been open and
welcoming to the PBL approach. It has been claimed, for example, that PBL facilitates a more engaging, challenging, motivational and enjoyable way to learn with several studies indicating that students share these positive views (e.g. Colliver, 2000). According to Leon et al., (2015), PBL approaches possess the benefit of greater student engagement and collaboration and encourages them to “build on their previous training and experiences and their existing competencies” (p. 3). There is also much evidence to suggest that students feel engaged to a high level in PBL classes due to being placed in a real-world, problem-solving context (Brush & Saye, 2008). While according to Bowe et al., (2003, p. 742) “the advantage of problem-based learning over other teaching methodologies is its flexible approach to students' learning styles. While conventional lectures assume that all students can learn by listening, problem-based learning allows students to learn in a way that suits them, and it also encourages them to evaluate their way of learning”.

Studies have revealed that problem-based learning has exercised a positive impact on learner knowledge in terms of content. Within the medical field, where clinical problems are used it is claimed that the PBL process includes educational techniques “such as those derived from adult learning theory” (Colliver, 2000, p. 2). The rationale of using such a PBL type pedagogy would allow a greater exposure to and the utilisation of both basic knowledge and clinical skills which are considered to be particularly important in the teaching and practice of medicine. There has however been extensive debate as to whether a medical practitioner educated through the PBL approach was of the same professional standing as one trained using the traditional methods (Savery, 2015). Large scale longitudinal research was conducted by Albanese and Mitchell (1993) and Vernon and Blake (1993) who investigated 20 years of PBL evaluation studies, concluding that students emerging from PBL type programmes were equal to those from traditional education.
in terms of conventional tests of knowledge and even surpassed their traditionally educated contemporaries in exhibiting clinical problem-solving skills. Similarly, within the physical therapy field, a study by Denton, Adams, Blatt and Lorish (2000) concluded that students participating in PBL programmes performed just as well as those taking traditional programmes, with the former reporting a strong preference for PBL as a newer form of pedagogy. The ability of PBL to foster teamwork has also been explored and generated mixed results. For some students the nature of the problem directly affected group cohesion with good PBL problems not always leading to positive teambuilding (Sockalingam and Schmidt, 2011). By contrast, a study Zhang et al., (2009) of new college entrants who participated on a six-week online PBL project highlighted a significant increase in knowledge and skills gained after interacting with other students and attempting problem solving and research skills independently. Hence, when designed and employed effectively, PBL can develop both team-based and independent skills and knowledge.

Broadening beyond the medical field there is the shared view among practitioners of PBL that students are more engaged in a PBL format than in traditional education methodologies (Torp and Sage, 2002) which is in turn reflects the rise to the popularity of PBL within educational institutions. Today, while not being a common form of pedagogy, there are many educational programmes that either have PBL at their core or incorporate a partial PBL ethos. Similar to the medical field, within the engineering discipline, it was uncovered that the ability to collaborate encountered through problem-based learning led directly to favourable learning results in a study of first-year students (Krishnan, Gabb and Vale, 2011). It was found that student groups who followed a collaborative learning ethos placed great emphasis on gathering as much knowledge as possible in the team environment. It was noted by observers that this group demonstrated highly developed skills in terms of communication, involvement levels that were very high and mutual
respect, and that most students within these groups “used deep learning approaches …[and] focused on finding more than one solution to each program” (Krishnan et al., 2011, p. 74). Within the Irish engineering education context, feedback of PBL has also been positive. According to Cosgrove et al., (2010), engineering students at the University of Limerick (UL) who engaged in a PBL project returned very positive feedback and reported that the programme was “energising and immensely rewarding” (p. 7). Indeed, Bowe et al., (2003) refer to the experience of successfully designing and delivering a first-year physics PBL course in an Irish higher education institute in such a manner that the transition was managed “so as to motivate the students to become self-directed learners” (p. 745).

Even when looking beyond higher education briefly, in primary and second level education there have been a range of different studies that have found students in PBL type environments exhibit enhanced critical-thinking and problem-solving skills (Shepherd, 1998; Tretten & Zachariou, 1995). From an engineering perspective, a study carried out by Verma, Dickerson & McKinney (2011) found that second level students from high dependency schools following a PBL methodology to study shipbuilding were more enthusiastic about marine engineering than previously indicated. Similarly, a study of second level economics students suggested that a PBL activity was effective in triggering engagement across the spectrum of students from the lowest to the highest in terms of performance in the classroom including those students regarded as being least interested in economics at the start of the exercise (Ravitz & Mergendoller, 2005).

It has long been claimed that students in higher education who are educated through a problem-based learning ethos exit their courses armed with a more practical knowledge of the world in
terms of content that can be utilised in a wide range of activities or tasks (Boaler, 1997). Content knowledge is described as “the intersection of knowledge of the subject with knowledge of teaching and learning” (Niess, 2005, p. 510) as well as “that domain of teachers’ knowledge that combines subject matter knowledge and knowledge of pedagogy” (Lowery, 2002, p. 69). More recently, a large-scale study involving 70 lecturers comparing PBL and non-PBL modules found that the PBL students performed significantly better on standardised exams, in addition to achieving higher on tests of ability designed to measure problem-solving ability and tests to apply content knowledge to everyday problems (Finkelstein, Hanson, Huang, Hirschman & Huang, 2010). Furthermore, other research has found that students were better equipped to showcase particular content application skills once they had taken part in a problem-based learning module (Mioduser et al., 2003), thus demonstrating deep learning and knowledge application that may be facilitated through PBL.

4.6 PBL in a Business Context

Within a business school context PBL can facilitate a development of key employment-ready skills. According to Delaney et al., (2017, p. 214), “a significant challenge facing business schools as education providers is designing and delivering programmes that effectively address current and future skill sets of frontline managers and produce graduates that can operate in changing environments”. Mindful of the increasing focus on education being both student-centred and marketplace focused, there is a strengthening link between education providers such as business schools and hiring managers in the workplace. Some of these workplace requirements have been
identified in terms of skills and how these skills may be applied as presented in Table 4. These skills and applications can be facilitated through a PBL approach.

Table 4: Basic skills for front line managers.

<table>
<thead>
<tr>
<th>Skills</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Presenting, active listening</td>
</tr>
<tr>
<td>People management</td>
<td>Relationship building</td>
</tr>
<tr>
<td>Team working</td>
<td>Consensus building</td>
</tr>
<tr>
<td>Self-awareness</td>
<td>Reflective practice</td>
</tr>
<tr>
<td>Problem-solving</td>
<td>Problem identification</td>
</tr>
<tr>
<td>Decision-making</td>
<td>Establishing learning outcomes</td>
</tr>
<tr>
<td>Setting objectives</td>
<td>Managing meetings</td>
</tr>
<tr>
<td>Managing time</td>
<td>Dealing with uncertainty</td>
</tr>
</tbody>
</table>

Source: Delaney et al., (2017). Adapted from the Management Development Unit (MDU), Design Team (2009), and Whetten & Cameron (2010).

Reflecting the importance of vocational outcomes particularly within business education, Delaney et al., (2017) suggests that effective learning enabled through a PBL approach will occur when students are challenged and motivated to learn skills that they can then bring to the workplace that will help advance their goals and aspirations. In addition, a study conducted by Van den Bossche et al., (2004) in their study conducted into the effects of PBL on business education, states that PBL students may “acquire less factual knowledge, but that they organize this knowledge better so that more of it is retrievable if availed upon” (p. 224). This suggests that these students may remember this knowledge for longer and be in a position to apply it when required.

In summary, the impact of PBL as a pedagogical method is significant and provides both pedagogical and vocational benefits. Pedagogically, it facilitates a deeper level and application of knowledge, enables higher level of student engagement and academic performance, hones a wider
range of transferrable skills, fosters group cohesion and leads to increased levels of learner satisfaction and enjoyment. Vocationally, through deep and continuous engagement with real world problems students develop a range of key skills such as problem-solving, critical and creative thinking which enables them to become employment-ready. Furthermore, it would appear that PBL results in a greater chance that students will engage in life-long learning and continue their educational development into the longer term (Delaney et al., 2017).

4.7 Challenges to the Effectiveness PBL

There are however also mixed views within the literature regarding the effectiveness of PBL as a teaching and learning approach (e.g. Colliver, 2000; Newmann, 2003). While compiled almost two decades ago, one of the most extensive and highly regarded reviews of PBL was conducted in 2000 by Colliver who suggests that the pedagogical advantages of problem-based learning, in comparison to traditional methods of education are less clear, particularly, given the fact that PBL programmes tend to be more expensive to operate and demand greater resources to administer. Specifically, he believes that the theory put forward by many of these pro-PBL authors is essentially unfounded; “its theoretical concepts are imprecise, lacking explicit descriptions of their interrelationships and of their relationships with observables, such as interventions and outcomes” (p. 264). In particular, Colliver holds the view that contrary to suggestions that the problem-based learning methodology is based on sound educational principles in a way that should benefit learning, it does not necessarily result in a positive outcome. Furthermore, he questions the claim that problem-based learning is more effective than traditional education methods to acquire content knowledge and basic applied skills. While the Colliver study provides a very detailed review of
PBL studies, it is primarily focused within a medical education context and not in the other areas where PBL is widely reputed to have enjoyed success.

Similarly, in another large-scale review and analysis of the effectiveness of PBL used in third level educational programmes within the medical arena, Newmann, (2003, p. 5) reflects Colliver (2000) view by proposing that “existing overviews of the field do not provide high quality evidence with which to provide robust answers to questions about the effectiveness of PBL”. In particular, his research provides a direct comparison between problem-based learning and traditional (non-PBL) teaching methods to uncover if PBL raised student learning in areas such as coping with and managing change, problem resolution, decision making in areas of ambiguity and critical reasoning. Similar to Colliver (2000), his results provided little or no evidence for the support of PBL over the more traditional alternatives. While these findings point to very real problems or issues within PBL, they may be criticised for being heavily situated within a very particular situation, i.e., one programme of study within one specific institution and thus are limited in their generalisability across other programmes and disciplines. It could be argued that the research focused on one dimensional i.e. the academic results attained by the students under review, overlooking such factors as morale, enthusiasm and particularly an enthusiasm amongst students for lifelong learning after they have progressed through a PBL programme.

Thus, there are some albeit limited examples of conflicting views among researchers challenging the effectiveness of PBL, particularly evident within medical education. Researchers have commented that the methodology be considered unreliable and non-transferable from programme
to programme and institution to institution. Furthermore, the costs associated with PBL are highlighted as being restrictive due to the small class sizes and the labour-intensive nature of the process from the lecturer perspective. Much of this research is inherently local and directly depends on the context in which PBL is being administered, the academic staff that are using it, the type of students on the programme and the physical classroom conditions. In addition, the implementation of the version of PBL that each institution administers is based on the respective culture of the individual institution and finding a one size fits all mentality is challenging. Therefore, the relative success or failure of PBL in terms of academic achievement is possibly very much dependent on how the methodology is applied and under what institutional and environmental context it is situated. This means that further research is required to offer a greater understanding of these contextual issues and how they can be better examined. In addition, it could be argued that the wide range and variety of PBL methods creates greater complexity when it comes to attempting to ascertain the effectiveness of each particular model. The next section will explore one of the key issues that emerged from the student interviews with regards to the student experience of PBL.

4.8 The Role of Assessment

Assessment is considered a highly important aspect of higher education because it has a range of powerful impacts on the student and has been described by Boud and Falchikov (2007, p. 5) as a component of education that “affects people’s lives” and “the future directions and careers of students depend on it”. Boud and Falchikov (2007, p. 5) go on further to describe how assessments are “a major concern and burden for those teaching them” yet we often overlook their importance and make assumptions about assessments on the basis of what “we have experienced in the past
rather than in terms of new circumstances that confront us”. Given their importance, one clear rationale suggesting a focus on the enhancement of assessment, is its huge impact on the quality of student learning (Boud and Dochy, 2010). Within education, assessment informs students what is important and what they need to achieve in their studies to be successful. Further, it seeks to capture their attention during study time and its’ results may seek to inform them of their progress within an individual field of study, which in turn impacts how they view themselves and those around them. According to Broughan and Jewel (2012), assessment is a major contributor to the exclusion and attrition of students, so the cost of haphazard performance may be high. Assessment is normally something that all lecturers are involved with to a relatively large extent. It is this centrality of the role of assessor that can act as a key differentiator between students and staff within educational institutions (Carless, 2015). According to Kandlbinder (2013) learning-oriented assessment represents an attractive outcome for educational institutions in that it seeks to centralise all assessment techniques on the advancement of student learning. The impetus for this progression was identified by earlier researchers such as Snyder (1971) in “The Hidden Curriculum” who analysed the experiences of students in MIT (Massachusetts Institute of Technology) in the United States. Snyder suggests that students’ participating in the academic and socialization routines which they are required to fulfill, but are not explicitly stated in the programme documentation, the importance of assessment results quickly overshadowed any higher order thinking skills outlined in the programme brochures. According to Sambell and McDowell (1998) it becomes apparent that students create their own version of Snyder’s (1971) Hidden Curriculum based on their own perceptions of the programme and institution they are members. The role of assessment in influencing the behaviour of students is well documented. For instance, Becker et al., (1968), Miller and Parlett, (1974) Ramsden (1992) and Carless (2015) describe the importance of
assessment in steering the behaviour of students and that from the student perspective assessment defines the curriculum. Ramsden (2003) goes on to describe the view that an important challenge of assessment that supports learners is that it is concerned with several different things at once. This is developed further by Carless (2012) who describes the purpose of assessment within higher education as being concerned with three distinct elements;

1. To support student learning
2. To judge the quality of student achievements, and
3. To satisfy the needs and demands of accountability

Carless (2015), further suggests that learning-oriented assessment is concerned with the first of these elements but is much less concerned with the remaining two as these can occasionally act as barriers to effective learning-oriented assessment.

Interestingly, Boud (2000) refers to the many different aspects of assessment as “double duty”. He describes situations where assessments need to be written around other assessments in order to satisfy the needs of certification within the particular educational institution. Double duty is seen to reflect the need for an assessment to test a student’s knowledge in a particular area of the programme as well as encouraging him/her in terms of life-long learning. Hounsell et al., (2007, P. 1) describe double duty effectively by suggesting that assessment needs to be “rigorous but not exclusive, be authentic yet reliable, to be exacting while also being fair and equitable, to adhere to long established standards but to reflect and adapt to contemporary needs”. However, Boud and Falchikov (2007) suggest that when the models and techniques applied within higher educational assessments are actually reviewed it is found that they are often simply oriented towards students being required to demonstrate “current knowledge, generating material for grading and getting,
often inadequate, feedback from teachers” (p. 5). Typically, in most educational environments it is found that the process of learning is not adequately assessed, nor how students will learn after the point of assessment has taken place. Interestingly this weakness of most assessments in education is regarded as a strength of Problem-based Learning in that one of the key strengths of PBL is that it seeks to assess the process of student learning and not just the product of the learning that has taken place. In other words, assessments within most educational environments are not sufficiently designed to enable students learn in situations where the lecturer is not present or where there is no active examination in place. What becomes clear is that assessments are one method, while not the only method, that teachers use to demonstrate power in the classroom.

4.9 The Role of Power within PBL

It was deemed important to explore the role that power had to play as perceived by the participating students in examining how this issue affected their educational journey while on the programme. For that reason, an exploration of power was undertaken to explore this issue further and make sense of the students’ perspectives. Much of the existing literature on PBL suggests that this form of pedagogy challenges the existing power dynamics in lecturer-student relationships by providing more autonomy to the learner (Czabanowska et al., 2012). Indeed, the lecturer or facilitator role in PBL is “to guide, probe and support the students’ initiatives, not to lecture, direct or provide solutions”, (Kaufman et al., 1989, p. 286). This role as defined by Kaufman et al., suggests a more informal, less autocratic and dictatorial environment where learning takes place. Furthermore, PBL has been described as a model of education which involves “learning in ways that used problem scenarios to encourage students to engage themselves in the learning process”
(Savin-Baden and Howell Major, 2010, p.3) and thus adopt a more self-directed and proactive learner role. It has also been seen that the motivation levels of students are enhanced when they are permitted to assume responsibility for identifying the solution to the problem they are tasked with and this identification process resides firmly with the student (Savery and Duffy, 1995). Indeed, while the limited literature in the area suggests that PBL intends to grant students greater responsibility over their own learning process, students did not always feel empowered (Wijnia et al., 2011). As the current literature on PBL claims that existing power dynamics are challenged because of PBL pedagogies, the following section aims to explore origins and theories of power as well as investigate power relations and their influence within an educational context.

4.10 Exploring Theories of Power

The concept of power has been viewed in many alternative ways (Clegg et al., 2011) but regardless of the context under which it is considered it is “a dynamic and socially constructed concept that attempts to govern choices that individuals enjoy and activities that they can do” (p. 63). Gore (1995) suggests that while education has experienced relatively significant changes in recent years, it has become apparent that a certain continuity in how power relations function in pedagogy has appeared. She asserts that this continuity restricts or holds back new initiatives in educational institutes and slows down potential developments. Gore (1995) builds heavily on both Foucault's model of power relations and an empirical study which highlights techniques of power at classroom level. Furthermore, she suggests that educators should reflect and consider how to exercise power differently to improve the pedagogical experience of both students and indeed lecturers.
Indeed, with regards to Gore’s (1995) Techniques of Power, the eight techniques described were used as a lens to analyse the comments made by the participating students in this study. These techniques of power include:

A. Surveillance: In this instance students are closely watched, observed and supervised. Gore (1995, p. 169) refers to the “classic” teaching strategy being encapsulated in the proverbial “eyes in the back of the teacher’s head” and the way this is used to signal power and authority over the lowly students.

B. Normalisation: In this way, norms are defined by the lecturer suggesting, demanding, setting, or conforming. Gore (1995, p. 171) defines normalisation as 'invoking, requiring, setting or conforming to a standard - defining the normal'. Foucault (1977) describes norms as a means of differentiation of individuals from one another by reference to a minimal threshold, an average to be respected, or as an optimum towards which one must move.

C. Exclusion: According to Gore (1995), Exclusion refers to defining differences, setting boundaries or indeed the formation of parameters. She suggests that the use of exclusionary methods to be quite common within education and tend to create student experiences that are profoundly negative in nature.
D. Classification: distinguishing individuals or groups from one another is another technique that Gore (1995) suggests is utilised within education as a means of wielding power. In this case, “classification is an important and productive mechanism for producing knowledge. However, in its application and construction of particular notions of normality, its repressive potential is also clear” (p. 175).

E. Distribution: In this case Gore (1995) states that students are organized through means of separating, ranking and arranging which is a means of achieving superiority and authority over them by the lecturer. She describes how this technique can have two typical implications, the first is that it may be used as an “organisational” tool but the second relates to its use as a means of “discipline” (p. 176).

F. Individualisation: This means of wielding power is derived from the giving of “individual character to oneself or another” (p. 178) and is regularly used within education according to Gore (1995). For instance, in her research she describes how a particular teacher would “measure herself against another’s courage”

*I grew up in the suburbs. I went to a country Teacher's College. I was sent to xxxx area for my first school. I then went to the inner city. I'm now teaching on the xxxx. So, I've really come quite full circle around NSW, I think. And what it's done in the time that I've been teaching primary school is that I've had to change myself. I've had to rethink what I was doing as a teacher. (Gore, 1995, p. 178)*
G. Totalisation: The aligning of a characteristic to a collective group where one may or may not be a part of this collectiveness is another technique suggested by Gore (1995). In this way she describes how teachers would use simple oral phrases such as the word “we” in the following manner;

*Teaching as a profession requires us to go on engaging in professional development throughout our careers... So I hope we can model for you what we're asking you to do in your own professional lives.” (Gore, 1995, p. 179)*

As the above example suggests, totalisation is a means of demonstrating power used by lecturers to administer groups of students and indeed for the production and transfer of knowledge. Both students and lecturers use this method and classify themselves by naming themselves as members of specific groups.

H. Regulation: In this final technique Gore (1995) states that regulation be defined as “controlling by rule, subject to restrictions, invoking a rule, including sanction, reward, punishment” (p. 180). She describes one instance in her research where the teacher outlines specific course and classroom rules that are invoked;

*“The subject, as you can see, is assessed on a pass/fail basis. And we're intending that to be the case because we hope that the course will be intrinsically interesting”.* (Gore, 1995, p. 180)

In this manner, within education *regulation*, the demonstrating of power by the lecturer tends to be quite explicit, clear and vocalised.
In a similar manner to Gore (1995), Cornelius and Herrenkohl (2004) suggest that the classroom environment helps shape student relationships with teachers but also with other students. They developed a series of headings referred to as characteristics of power to help frame the role and nature that power can play within the classroom. These headings include;

1. Ownership of ideas; this relates to how students’ understanding of who owns an idea, i.e., a textbook or teacher, will affect their relationship with that idea and therefore their willingness to engage with that idea. For instance, if an idea was seen to be presented by a lecturer then this will be given greater credence than if it was suggested by a student.

2. Persuasive discourses; Here, the complexities of communication are described as having an impact on the power relations that may exist between people, specifically between lecturer and student. For instance, a lecturer speaking in an authoritative and assertive manner may be accepted by the student, but not necessarily by another lecturer.

3. Partisanship – which helps to describe how power develops between individuals during their interactions with each other and specific concepts. Specifically, within education it is understood as the support for a person or group without fair consideration of the facts and circumstances, helps to describe how power may develop between students during their interactions with other students and lecturers.
What is demonstrated here is that in effect, power establishes the rights that individuals are granted, even if they do not actually exercise them. Furthermore, power can be considered a relational concept in that it exists within and between individuals within society, which may be seen within professional relationships and networks that help explain how power is shared and even allocated. The basis of power and influence within relationships can be explained by several causes such as the willingness of people to bend their wills to a particular purpose and knowledge (Clegg et al., 2011). For instance, it was Foucault (1977) who made the assertion that knowledge is an essential ingredient when attempting to create a basis of power because it is the dominant or superior individual or group that establishes what is considered to be truth and rationality, which assists in the marginalisation of people and/or groups. Another important source of power according to Weber (1978) is power conferred through legitimate means which happens to exist primarily because others accept it, which is power attributed though a formal position or title assigned to an individual. This is important as the title of “lecturer” may project significant associations of authority similar to that of “teacher” from the perspective of the student.

It was Lewin in 1951 who first suggested that power is a reciprocal relationship between at least two parties or individuals. He suggests that when a power relationship exists, person 1 exerts force towards person 2 with the objective to impact the behaviour of person 2. Lewin (1951) proposes that person 2 can of course make efforts to resist this force applied by person 1 and he defines power as the ratio of the force which person 1 can affect towards person 2 and in turn the resistance which person 2 can create. In a similar manner, Cartwright (1959) states that power is the difference between the force to comply and the force to resist which is created by a person’s activity. He referred to this gap or difference as the resultant force. The concept of influence on the recipient or the receiver from power exerted by another party is seen throughout the literature.
French and Raven (1959) suggest that power should instead be considered from the receiver's perspective, in other words, the person who the power is targeting, and defined in terms of the influence that may be created resulting in change. Emerson (1962, p. 62), describes power as an element or attribute of a relationship between two individuals, "power is a property of the social relation; it is not an attribute of the actor". While of course there is a degree of variation, there is consensus within the literature in relation to a person’s ability to institute change in another person’s actions in a direction which it would not normally be oriented. In this manner, it is commonplace for the terms power, influence and control to be used almost interchangeably.

There is a long-standing acknowledgement of the bases of power in terms of how one person or party can use to influence the behaviour of another. French and Raven (1959) identify 5 bases of power which have been the subject of much academic research and application. These bases include sources such as reward power, coercive power, legitimate power referent power and expert power (p. 253-255). Like French and Raven’s (1959) bases of power, Dahl (1957) conceptualised four dimensions which are presented below to help understand the influence and dynamics of power:

a) Dahl's base of power - the underlying resource of the power holder. In the business and marketing world this may include aspects such as co-op advertising, trade allowances, and free samples, or indeed, the power or authority to provide them.
b) Dahl's means of power – where the subject becomes aware of the power holder’s existence through many various ways such as the promise of help or guidance, punishment threats, the actual use of power, or even the reminder at this type of power exists.

c) Power source – the subject's belief or perception of the power holder's ability to bestow rewards and/or impose punishments. The difference that might exist between the power base (superior individual) and source is the gap between the holder's ability to grant rewards and/or impose punishments and the subject's perception of that ability.

d) Exercise of power source – this refers to the actual delivery or provision of rewards and/or punishments. Dahl states that the difference between the ability of the person wielding power to reward and/or punish and the underlying resources concerning that power should be considered. If one views the ability as the power base and the perception of the ability is the power source, then perhaps the term "power resource," describes the underlying resource.

This term “power resource”, was first described by Robicheaux and El-Ansary (1975, p. 11) within the area of channel member power dynamics in the retail sector. Aside from the ability of the more powerful party's ability to offer rewards and/or sanction penalties, its power bases, and the subject's perception of those abilities and qualities (power sources), the provision of those rewards and the sanction of those penalties may occur. According to Gaski (1984, p. 130), these activities have been termed "exercised power sources". These activities have occasionally been referred to as "influence strategies" (Brown and Frazier, 1978; Frazier and Summers, 1984). These two different
ways of applying and understanding power-based theory suggest alternate positioning of the construct. Gaski (1986) considered these reward and punitive actions collectively as an intervening variable positioned between the sources of power and power itself. He describes it as a device that may raise the intensity of power beyond the level produced by the inert power sources (beliefs or perceptions) themselves. Hence, the literature conceptualises power as a dynamic and socially constructed concept which has a deep relational dimension, in that it can be wielded by a person to influence the behaviour or another. Several bases, dimensions and sources of power as well as the role of rewards and punishments have been identified within seminal power theories. The next section focuses on exploring power and power relations within an education context.

4.11 Exploring Power Relations within Education

Apple (1982) articulated the theory on educational institutions and the reproduction of and resistance to unequal power relations, and suggested that race, gender, social class dynamics are not only embedded in, but reflected through, class room structures. Later, in 2012 (p. 76), he puts forward the assertion that educators must carefully consider the quite “complicated and even contradictory economic, political and cultural structures that provide for some of the most important limits on, and possibilities for, critical education”. Within education, power has been explored by a limited number of researchers. A seminal study by Ball (1993, p. 109) suggests that it is not only ‘what is said’ but also “who is entitled to speak” which may be salient signs of who possesses control within a student-teacher relationship. Ball (1993) argues that while parties in the student’s life such as parents and employers, possess the authority to speak, it is teachers who may lose their authority under an extreme version of control that happens to be derived from the apparent granting of values and interests as privileges. According to Ball, this is a “micro-technology of control” (p.
demonstrated by a process of regulation of the self. Furthermore, Ball suggests that in the event of resistance, it may work against colleagues and their interests rather than against the educational policy itself or the educational institution. In terms of discipline within the management function, this may be interpreted as being positive or productive rather than negative or coercive. Ball states that “It increases the power of individuals—managers and managed in some respects—while at the same time making them more docile. It offers flexibility and autonomy to some, although within the constraints and rigors of a market system and in relation to fixed indicators of performance” (1993, p. 112). Power therefore can liberate and yet enslave (Ball, 1993).

There is a scarcity of recent empirical research on power in higher education and especially within student-staff relationships which has predominantly relied on ambiguous understandings of power. Robyak et al., (1986), for example, referred to power simply in terms of influence one party possesses over another. The apparent difficulty in the definition and indeed measurement of the concept of power led to a review by Mitchell and Spady (1983) and Paap (1981). A further example of a limited exploration of power within an education setting is by Gilbert (1985), where students were requested to measure the power and influence of those whom they considered to be the most dominant role model for them. While the researcher’s objective was to measure "power and influence," these terms were not clearly defined and were considered to be part of the same construct. Indeed, many researchers suggest that there is an obvious difference between these two terms with a need to examine the concept of power as distinct from its relationship with influence (Tedeschi and Nesler, 1994). Similarly, others have highlighted power is not clearly defined and it as an attribute or measure may not be entirely valid (Cook and Campbell, 1979). In this way, the reliance of perceptions of power as indicators of the behaviour of the learner may result in
inaccurate outcomes (Linn, 1985). This raises questions of the reliability of the research which assesses learner’s views or attitudes in relation to those such as teachers who may be considered to hold positions of power. Specifically, there is a need to explore the power relations involved in the application of PBL pedagogies and how power is perceived and experienced by students.

Alongside a focus on power and power relations, given the second research question in this study, regarding theories used by students to create a cohesive group identity and to distance themselves from other groups, learner identities are also worthy of exploration within a PBL context. Hence, the question is raised as to whether learner identities changed or were challenged because of PBL structures. Given PBL’s focus on developing both pedagogical as well as vocational learning outcomes, it would also be important to explore to what extent professional identities as well as learner identities are developed through PBL. This aspect emerges as being important given the strong statements of positionality issued by the students during the interviews. Furthermore, given the degree of group work involved, an investigation of the interplay between individual and group learner identity is warranted in terms of how these may be challenged or changed through PBL pedagogies and structures. To address these questions, the next section presents a review of the literature on identity and specifically social identity theory within the context of intergroup processes including an exploration of social comparison, social mobility, belongingness and group conflict theories within the overall context of education.
4.12 Group Membership & Social Identity Theory (SIT)

As the study also aimed to explore group identity and the techniques used by the students to create a strong group identity and distance themselves from others, this section will examine identity and specifically group identity. There have been many efforts to understand and review the effect of membership in groups within social psychology (e.g. Rubin et al., 2014; Turner and Reynolds, 2010; Brown and Lunt, 2002; Triplett, 1898). It is widely accepted that the way a person behaves is strongly linked to the social groups that he/she may belong to and thus has direct implications for their social identity. Nevertheless, it would appear that research and theory into this person–group relationship has been relatively slow to materialise over the years (Turner and Reynolds, 2010). As human beings we enjoy membership of a range of different groups from one’s immediate family to groups within the local community, groups within education, not to mention groups within the wider society such as ethnic background, nationality and religion. It is interesting to note that most of the early research in this area has focused on narrowly defined, small groupings. Triplett’s (1898) study, for example, investigated pairs of adolescents performing a specific task and found that that a “group setting” encompasses just one other person being present. It could be argued that this relatively tight or narrow view of groups within the social context has emerged as the primary understanding within social psychology, normally termed “intragroup relations” (Brown & Lunt, 2002). Brown and Lunt (2002) further suggest that this early research focused on associated impacts of the members of the group on a particular person. This is evidenced in Allport’s (1924, p. 38) research where the key activity performed by a group was to “intensify the habits and responses of individuals”. In other words, the group activities are just a summation of personal acts of the individual members of this group. Allport’s work focus on individual members was later reflected by Asch (1956) review of the normative influences of groups on the individual,
identifying its overriding effect in encouraging the individual to conform or obey the wishes of the larger group with group settings controlling the behaviour of the individual.

Continuing the discussion of the group influence on individuals, McGarty and Haslam (1997) describe the effect of the presence of others on the individual’s behaviour in social contexts and the efforts the individual makes to draw sense from those contexts and his/her behaviour. Further, McGarty and Haslam (1997) state that for the most part, within social psychology, the effect of the group is generally understood to enjoy an influencing effect on the logical or rational thought process of a person or the individual and is therefore individualistic in perspective. This effect can quite easily result in conflict between the group and the individual McGarty and Haslam (1997). Consequently, the group is seen only in terms of the impact or how it may affect the individual. It is interesting to note that research carried out by Tajfel (1959) follows a different path, referred to as the study of intergroup relations. It is widely accepted that this train of thought was developed in research which arose from prejudice that was generated by the range of conflicts that occurred during the mid-twentieth century, such as both world wars (Clark and Clark, 1947; Sherif and Sherif, 1956; Pettigrew, 1958). This relatively recent “intergroup” view has at its core a focus on how individuals relate with the various groups to which they belong and how this membership influences decisions that the individual might make.

Within the broader context of the identity of the individual and societal dimensions, i.e. social class and ethnic background, the concept of the group is widely regarded to be the interaction between the person and the social class (Brown and Lunt, 2002). The issue then for social psychologists is to consider and explain the methods describing how this takes place. Brown and Lunt (2002), further suggest that Henri Tajfel enjoyed the position of being a highly significant figure in the establishment of largely European social psychology. Tajfel’s research in the middle
of the 20th century was preoccupied primarily with the issue of social perception. Specifically, his studies in 1959 and 1969 highlight how judgements and biases affect how individuals perceive others and proposes that individuals combine views or judgements about variables such as physical attractiveness, friendliness or intelligence with the allocation of people into distinct social groups (i.e. ethnic background or socio-economic status). Furthermore, Tajfel (1969) suggests that as humans we tend to view others who are in the same group as being largely the same in many ways and exaggerate these similarities and tend to overestimate any differences between groups. Hence, viewing entire groups of people as being all the same is the primary cause of prejudice within society. Tajfel (1969) then started to create a view on relations between groups based on two factors;

1. An approach based on a cognitive process that could assist in explaining the specific variables that form the basis of intergroup processes with support from,

2. A ‘social’ approach which would seek to describe the economic, cultural and societal, variables that might govern the relationship between groups.

Such a conceptualisation underlay the foundations of social identity theory (SIT) in relation to intergroup processes within the field of European social psychology. Essentially, Social Identity can be described as an individual’s understanding of their identity based on the groups where they are members. Tajfel & Turner (1979) suggest that the groups (e.g. family, club, social class, association, etc.) which people may enjoy membership act as a key source of pride and help create
self-esteem. He proposes that one’s membership of a group may provide us with a profound feeling of identity within society, an understanding of where we might belong in the community. Furthermore, to increase self-image, individuals are likely to enhance the status of the group to which they belong. In this manner, people are likely to divide the world into “them” and “us” based on a process of social categorisation (i.e. placing individuals into social groupings). This process is known as out-group (them) and in-group (us) which is further explored under group conflict in a later section. Furthermore, social identity theory suggests that individuals within an in-group are likely to engage in discriminatory behaviour towards an out-group to increase their own self-image or their view of themselves. The next section explores the notions of social identity and social comparison within an intergroup context.

4.13 Social Comparison and Social Identity

It has been stated by Forsyth (2006, p. 2) that an individual group may be understood as “two or more individuals who are connected to one another by social relationships”. Similarly, Sherif (1966, p. 62) suggests that:

“...any behaviour displayed by one or more actors toward one or more others that is based on the actors’ identification of themselves and the others as belonging to different social categories. But they do not merely systematize the social world; they also provide a system of orientation for self-reference: they create and define the individual’s place in society.
Sherif (1966, p. 2) goes further to say that,

“Social groups, understood in this sense, provide their members with an identification of themselves in social terms. These identifications are to a very large extent relational and comparative: they define the individual as similar to or different from, as ‘better’ or ‘worse’ than, members of other groups”.

Based on these definitions, the term social identity starts to emerge. It consists, according to Brown and Lunt (2002), of those components of an individual’s image of the self that can be derived from the social groups to which he believes that he belongs. With this explicit definition of social identity in mind, one should consider the following assumptions. Firstly, people aim to sustain or increase self-esteem: they pursue a positive view of self or social identity. Secondly, groups and individuals that join these groups are driven by positive or negative feelings. In this manner, a person’s identity may be positive or negative based on their examination of the groups that they happen to be a member and, thirdly, individuals conduct evaluations of their own group using a process of comparison with other groups from the perspective of attributes and characteristics that are value laden. Comparisons where the in-group is perceived as superior to the out-group results in high prestige, while comparisons where the out-group is superior results in low prestige for the individual (Brown and Lunt, 2002).

Based on these assumptions several findings naturally begin to emerge. First, people strive to achieve a favourable social identity (Hawley, 1999). Second, this favourable social identity is derived mainly from positive comparisons made between the in-group and out-groups (Sherif, 1966). Third, when a person’s social identity is negatively perceived, or they deem it to be
unsatisfactory, this person may wish either to leave their current group and join a different group positioned in a more positive light or to attempt to make their existing group appear in a more positive light (Brown and Lunt, 2002). According to Brewer and Miller (2010), the key point begins to surface then that pressure an individual may feel to view his/her group positively through *in-group* and *out-group* comparisons may well lead different groupings trying to set themselves apart from each other.

According to Tajfel *et al.*, (1971) there are at least three classes of variables that would normally hold an influence over intergroup differentiation in distinct social situations. In the first case, a person should firmly embrace their membership of the group as an aspect of their self-concept, it is not enough that other individuals see them as being a member of a particular social group. In the second case, a person must be able to perceive comparisons between groups using whatever attributes are relevant. In the third case, individuals within a specific group do not necessarily compare themselves with all out-groups that exist, only those that are considered to be relevant, important in addition to being physically close in proximity. Related to social comparison is social mobility which is explored next.

### 4.14 Social Mobility

According to Simandan (2018) social mobility is understood to be the transfer or movement of an individual, family, household, or other group of people both within and indeed between levels in a society. Furthermore, open stratification systems are those in which at least some value is given to achieved status within a society. This movement or transfer may be in an upward or indeed a downward direction or path (Heckman and Mosso, 2014). It is generally accepted that social
mobility is highly dependent on the overall structure of social statuses and occupations in a given society (Grusky and Hauser, 1984). In addition, the extent of different social positions and the manner in which they fit together or overlap provides the overall social fabric of these positions. Once the various dimensions of status are combined with this, such as Weber's (1946) delineation of economic status, prestige and power and the potential complexity in any social network or structure becomes apparent. Any such dimensions within any social structure or society can be viewed as being variables that are independent from each other which may demonstrate the differences in social mobility that may apply at different times. According to Collins (1998) the same variables that contribute to the valuation of income or wealth and that also impact social status, social class and social inequality do also affect social mobility. These variables may include gender, ethnicity, age and education. Out of these four variables, education and specifically PBL education become particularly relevant within this research as means used by students to enable social mobility.

According to Greenstone et al., (2016) education provides one of the most promising chances of upward social mobility into a better social class and attaining a higher social status, regardless of current social standing in the overall structure of society. However, the division or strata within social classes and the high wealth inequality directly affects the educational opportunities people may be able to obtain and the opportunity for an individual's upward social mobility. In this manner, social class and a family's socioeconomic status may directly affect a student’s chances for entering a quality educational process. Social mobility can also be influenced by differences that may exist within education itself. The contribution that education may deliver to social mobility is often neglected in social mobility research although it really has the potential to transform the relationship between origins and destinations (Brown et al., 2013). Recognising the
disparities between geographic location and its educational opportunities highlights how patterns of educational mobility are influencing the capacity for individuals to experience social mobility. There is therefore some debate regarding how important educational attainment is for social mobility. A significant portion of the literature suggests that there is a direct effect of social origins which cannot be explained by educational attainment (Bernardi and Ballarino, 2016). However, other evidence suggests that, using a sufficiently fine-grained measure of educational attainment, taking on board such factors as university status and field of study, education fully mediates the link between social origins and access to top class jobs (Sullivan et al., 2017). Hence, there is consensus in the literature that education attainment directly enables social mobility, increased social status and success within society, thus engendering social identity. Given the focus on group dynamics within a PBL context, it is important to explore the nature of belongingness within groups and its effects on identity.

4.15 Identity & the Group

It was deemed important to explore identity, not just from an individual perspective, but more importantly from a group perspective as their allegiance to a perceived group, and distancing from another, appeared to be very prominent in their responses. For that reason, an exploration of group identity was undertaken to explore this issue further and make sense of the students’ perspectives. There are several definitions of identity within a group construct evident in the literature. According to Josselson (1994, p. 82), identity is at its core psychosocial, as “an expression of self, for, with, against, or despite; but certainly, in response to others”. Similarly, Burke and Tully (1997, p. 883), put forward the view that “one’s individual identity is a set of meanings applied to the self within a social role or situation”. More recently, Sluss and Ashforth (2007), an individual’s
identity describes how a person affirms his/her worth to others and to him/herself. These definitions attempt to “serve as a standard or reference” for helping to evaluate an individual’s behaviours with regard to others (Burke, 1991, p. 837). It is interesting to note that academic discourse has placed less emphasis on individual identity (Lyubomirsky et al., 2006), in favour of the collective and fails to acknowledge the deeply personal importance of self-image and self-assessment in the evaluation of individual’s sense of worth and personal happiness (Strauss, 2005).

The way a person acts in any given situation is directly related to one’s own identity, the roles that the individual has identified as important, and the link between behaviour and how the person believes he/she should behave (Burke and Reitzes, 1981). Hence, there are strong links between individual identity and social identity.

These links between social and individual identity are based upon one’s perceived role as a member of a collective (group) as distinct from one’s identity as an individual (Stets and Burke, 2000). Social identity is the portion of an individual’s self-concept derived from personal membership in a relevant social group (Turner and Oakes, 1986). Flynn (2005) suggests that personal identity is validated by the comparison of the self to others and by confirming one’s identity in context with how one believes he/she is perceived by other persons. In his study of student identity within an education context, Flynn (2005) found that students strongly identified with some groups which they perceived as more attractive just as strongly they dis-associated with other groups, perceived as less attractive. According to social identity theory (Tajfel and Turner, 1986), people can perceive themselves differently at any given moment in time, depending on where they feel they are located on the personal-versus-social identity continuum. At the personal end of this continuum, they think of themselves as individuals and at the social end they consider themselves members of specific social groups. According to Branscombe and Baron (2017),
individuals do not experience all aspects of their self-concept simultaneously. Instead, where they place themselves on this continuum at any given moment will influence how individuals think about themselves.

It is also important to explore the origin and nature of belongingness given the research question examining the methods students use to create a group identity and to distance themselves from other groups. It would help to understand the role that belongingness plays within identity theory as it became apparent that students interviewed as part of this research displayed a strong sense of attachment to the group in completing coursework and to the Master-cohort as a whole. According to Baumeister and Leary (1997), a high proportion of the work conducted around bonds within groups has been viewed using a lens of belongingness. Significant evidence exists suggesting social bonds are created quite easily in most cases. For instance, in the well documented Robber’s Cave study conducted by Sherif in 1954, boys that did not know each other were placed into two different groups and almost straight away a sense of group identity or camaraderie was seen to develop within each of the two distinct groups. Also, a sense of competition was encountered between the two groups when both were positioned against each other. Interestingly, when both groups were combined to form one larger group, the bond or sense of belonging was widened to include members of the larger group.

Belongingness is related to social identity. According to Schiffman and Kanuk (2012) belongingness has been described as an emotional need that people possess to be a member of a specific group. This may be a group of friends, family, club, or association and may be very rigidly defined and formal or loose and informal in terms of its membership. Furthermore, individuals are seen to possess a strong wish to belong and be a recognized member of certain groups or associations which suggest a relationship that may be stronger than mere familiarity.
Belongingness is a relatively pervasive emotion that exists with most people and the decision to belong/join or to belong/leave a group happens due to the choices of the individual and the group (DeWall et al., 2011). Indeed, DeWall et al., (2011) posit that the feeling of belongingness is such a strong motivator among humans that we experience significant negative consequences when we feel that we do not belong. Furthermore, Leary and Baumeister, (2017) state that this wish or desire to be a member of a group is so pervasive that this need is encountered in all societies and all countries. Given that the formation of group identity and distancing from groups that are perceived as being less attractive is a potential source of discomfort and conflict (Brown and Lunt, 2002), the nature of group behaviour in terms of conflict and resolution is explored next.

4.16 Interpersonal and Intergroup Behaviour

Realistic Group Conflict Theory (RCT) and Conflict Resolution

When exploring the social context of intergroup behaviour and conflict it is worthwhile to examine the differences between two aspects of social behaviour, interpersonal versus intergroup behaviour. According to Brown and Lunt (2002), at one extreme end which possibly does not really exist, is the contact between people that is based on their relationships at an interpersonal level and their specific attributes and may be less affected by which groups they may or may not be members. Another extreme, again unlikely to exist, consists of contacts between people (or indeed groups of people) which are fully based on their membership of groups and are not in any way impacted by the interpersonal contacts and relations. In terms of examples close to the interpersonal end of the spectrum would include the relationship between two or more very old friends, while examples near the intergroup extreme might be explained by the behaviour of service personnel from conflicting armies during a war.
As referred to earlier under intergroup processes, one of the primary tenets of SIT is that members of a particular *in-group* will attempt to identify negative attributes within a specific *out-group*, which should result in the elevation of their own image or position. Tajfel suggests that people categorise individuals in the exact same manner; people are predisposed to view the group to which they belong (the *in-group*) as being significantly different from other groups (*out-groups*), and those that may enjoy membership of the same group to share far more characteristics than perhaps they really do. An alternative approach to Tajfel’s *in-group & out-group* theory is put forward by Sherif and Sherif (1956) and is referred to as the ‘realistic group conflict theory’ (RCT). Contrary to Tajfel’s theory, Sherif & Sherif (1956, p. 78) refers to as “the functional relations between social groups” as opposed to just within. According to Campbell (1965, p. 287), its central theme suggests that; “real conflict of group interests causes intergroup conflict” and “is deceptively simple, intuitively convincing, and has received strong empirical support”.

RCT essentially attempts to explain how rivalry leading to hostility can emerge between specific groups because of objectives that may conflict and competition between these groups. In addition, it may help to explain those negative views the *in-group* may possess towards the *out-group* leading to discrimination (Whitley and Kite, 2010). It is suggested that the resources (real or imagined) which groups may have in mind when competing with other groups may include finance, power, or indeed social status (Jackson, 1993). According, to Baumeister and Vohs (2007) feelings of bitterness and jealousy may surface in the situation where groups see the competition over such resources where only one group is the total winner, i.e. the winning group has obtained the required resource (perhaps funding) and the other loses or is not in a position to secure the scarce resource due to the winning group achieving the limited resource first. Furthermore, it is suggested by Sida-nius & Pratto (1999) that the duration and depth of the conflict is dependent on the worth and
scarcity of the specific resource. According to realistic group conflict theory, a positive status quo between the groups may only be restored once higher order goals are in place (Jackson, 1993). Referring to the Robbers Cave Experiment run by Sherif (1961), it presents one of the most widely accepted demonstrations of RCT (Whitley and Kite, 2010). This large-scale study was carried over a 21-day period in a large summer camp in Oklahoma, United States and sought to focus on inter-group behaviour among these boys. In this research study, academic researcher staff pretended to be workers at a camp and observed twenty-two, eleven- and twelve-year-old boys who did not know each other but possessed similar backgrounds (Sherif et al., 1961). This experiment consisted of three distinct stages. The first stage being "in-group formation", in which upon arrival the boys were split into two roughly equal groups based on perceived similarities. At this point of the study each group was not aware of the presence of the other group. The second stage was referred to as the "friction phase", where the groups were encouraged to compete in a series of activities where valuable awards were presented just to the winning group. This had the effect of the development of negative views, opinions and comments towards the respective out-groups. The last stage was the "integration stage". During this phase, the high tensions between the groups were lowered using teamwork-based activities that needed cooperation and support between groups (Sherif et al., 1961, p. 158-159).

Several conclusions emerge based on the three-stage Robbers Cave Experiment (Sidanius & Pratto, 1999). From the study, it is suggested that since the groups were largely the same in size, individual differences are not necessary or responsible for intergroup conflict to occur. Sherif noted that hostile and aggressive attitudes toward an out-group arise when groups compete for resources that only one group can win, this is later referred to as a zero-sum or the all or nothing game. Sherif also establishes that contact with an out-group is insufficient, by itself, to reduce
negative attitudes or views towards each other. (Sherif, 1966). Sherif concludes that animosity between the groups may be alleviated and a positive relationship between the groups maintained in the presence of superordinate or higher order goals that sought to promote a “united, cooperative action” between the groups, i.e. the creation of a common, overarching goal (Sherif et al; 1961). Further research found that in two earlier studies the boys were documented as ganging up on a common enemy such as the researchers themselves displaying an acute ability to perceive that they were being manipulated (Cherry, 1995). In addition, Billig (1976) found that there was a third group in existence, the researchers themselves, which is one that is possibly the strongest of the three which became the out-group itself in the experiment. In a more recent repeat of the study by Lutfy Diab, Professor of Psychology at the American University of Beirut (AUT) with 18 boys from Beirut comprising 5 Christians and 4 Moslems. It was reported that arguments quickly erupted, but, not between Christian and Muslim but between the “Blue” and “Red” groups themselves (Hutchinson et al., 2006, p. 178) highlighting that conflict arose not due to religious difference but simply due to inter-group rivalry.

Adopting a “social-psychological approach” according to Fisher (2000) helps appreciate conflict between groups, that is, conflicts between people that occur in terms of their group identities. He reflects on the likely outcomes of this method across two scenarios, firstly, resolving conflict between parties and secondly for conflict resolution training programmes. Fisher (2000, P. 167) suggests that “intergroup conflicts arise from objective differences of interest, coupled with antagonistic or controlling attitudes or behaviours. Incompatibilities, which can prompt conflict, include economic, power or value differences, or differences in needs-satisfaction. Often intergroup conflicts have a mixture of these elements”. He further states that these inconsistencies can sometimes
then evolve towards “destructive intergroup conflict by common perceptual and cognitive processes”. The very first stage of group formation tends to result in a degree of *in-group* favouritism and disagreements or negative feelings between groups may develop discriminatory stereotyping of the *out-group*. It is also worth noting that each group has its own sense of identity and this will affect how it engages with other groups, particularly the *out-group*. Fisher suggests that groups display a certain level of cohesion, in the sense that the members of the group may hold a degree of attraction towards the group and may wish to stay within the group. It is this sense of cohesion that can result in severe pressure to obey established norms, particularly in stressful or indeed conflict situations. It may be argued that conflict could lead to an intensification of this process, "through a combination of cognitive rigidity and bias, self-fulfilling prophecy, and unwitting commitment to prior beliefs and action, parties are drawn into an escalating spiral wherein past investment justifies increasing risk, and unacceptable losses foreclose a way out" (Fisher, 2000, p. 174).

Fisher (2000) suggests a set of guidelines for the resolution of intergroup conflicts. This process of conflict resolution consists of three phases: 1. analysis, 2. confrontation, and 3. resolution. The detailed analysis of conflict is likely to uncover any issues, needs, fears, values, and goals of the parties that may exist below the surface, via a methodology that permits mutual explanation and building of trust between the two parties. Once this analytical period has taken place, a period of productive confrontation occurs, "in which the parties directly engage one another on the issues dividing them and work toward mutually acceptable solutions through joint problem solving" (p. 178). It should be suggested strongly to both groups that the pursuit of a collaborative strategy is the most appropriate way forward. The resolution of conflict "involves transforming the relationship and situation such that solutions developed by the parties are sustainable and self-correcting in the long run" (p. 179). The achievement of inter-group resolution is likely to demand
the discussion and addressing of each party’s most basic human needs and requirements. This issue of intergroup relations in terms of conflict and resolution is highly relevant to the successful completion of the PBL process due to the intensive teamwork demands of these programme types (Savery, 2015). The methods for handling any other differences should require “meaningful involvement by all concerned parties” (Fisher, 2000, p. 179). With the most basic level in mind, this requires a high degree of support from members of society for equality and equity between groups. The next section reviews the concept of social comparison and change.

4.17 Hierarchies and social change

The key researchers in this area, Tajfel and Turner (1979) propose that status should not be thought of as a scarce resource or even a commodity, such as how power or wealth could be considered. Instead, it is the outcome of comparisons taken place between groups. Furthermore, this process tends to reflect a group’s position relative to other groups based on specific attributes. Naturally, the lower a group’s status or position relative to comparison groups, the less this group’s membership can make to a positive social identity for the individual. Tajfel and Turner (1986) suggest that there are three strategies that people adopt in attempting to alter their position relative to others. These include;

1. Individual Mobility. Brown & Lunt (2002), suggest that the more a person subscribes or believes in the notion of social mobility, the more likely it is that he/she will attempt to join a different group. This activity normally suggests an effort to elevate one’s position upward, i.e. social mobility, to move away from a lower status group to one that is perceived
as being higher. This effort to move away from groups perceived as being low prestige are commonplace are discussed extensively by Klineberg and Zavalloni (1969).

2. Social Creativity. The members in a group could attempt to change or even adapt certain attributes of their group. According to Jackson et al., (1996, p. 241-242) “social creativity strategies include changing the valence of a negatively distinguishing dimension to make it less disparaging to the in-group, enhancing perceptions of the in-group on dimensions other than the distinguishing dimension, or changing other elements of the comparative situation to favour the in-group (e.g., engaging in downward social comparisons). Social change strategies focus on producing actual changes in the relative status of the in-group and out-group. Typically, they involve mobilizing members of the in-group to confront out-group members to change the status quo”. For instance, Lemaine (1966) suggests one way for a group to achieve this is for them to run comparisons between their group and the out-group based on a new attribute, such as children’s groups tasked with building huts. One group believed they had been assigned inferior materials than the out-group so would compare new constructions in the hut’s environs. Another technique is to alter the values that may be assigned to the attributes of the group to view negative results as being more positive than they were previously interpreted, so that comparisons which were previously negative are now perceived as positive. A further method of dealing with this unease is for a specific group to simply change the out-group that is being used for comparison. When the comparison between the in-group and the new out-group creates a more positive result then the feeling of inferiority should reduce in importance and self-esteem increases.
3. Social Competition. Individuals within the group may attempt to elevate their group’s position relevant to an out-group. As outlined by Tajfel (1981) individuals might attempt to effect a change of their group’s position within the in-group and the out-group on issues that they might feel are important or key. In doing so, this might involve creating comparisons between the two groups in question which is likely to cause conflict or tension between the groups.

When one considers the arguments made by Tajfel & Turner (1979), Browne & Lunt (2002) and indeed Jackson et al., (1996) it becomes clear that both individual mobility and social creativity may result in the easing of conflict at intergroup level. It is argued that individual mobility can result in the erosion or reduction of the sense of solidarity that may exist between the group and the subordinate and that social creativity may help repair or possibly develop a positive self-image. Furthermore, by turning around the conditions where social stratification may not result in the creation of conflict at intergroup level, it may be suggested that negativity regarding social identity encourages competition toward stronger, more domineering groups to the extent that;

(a) Subjective identification between the dominant & subordinate groups are continued and

(b) The beginning or continuation of perception that the stronger / dominant group as a likely group to be compared against (Tajfel and Billig, 1974).
This is important to note because it helps to draw a line of difference between insecure and secure comparisons between groups. What is key here is establishing if other realistic alternatives are available. Of course, where the relationship between groups is perceived as being solid, not likely to change, then the social identity of everyone within the group is secure. This only becomes insecure when the existing state or group conditions starts to come under scrutiny. Also, it is important to note that those groups that may be stronger, may be more dominant, too, can be subjected to feelings of insecurity regarding their identity. Indeed, it could be argued that any potential attack to the superior group suggests a loss of favourable and/or negative comparisons which are most likely to be defended. It is key to note for the benefit of this research thesis that this attack could well originate from the operations of a lower status group who are attempting to elevate their comparative position. Like the lower status groups, the dominant groups are likely to pursue a campaign where they search for improved or heightened differences when they perceive their social identity may be under threat. The following section will identify and address the key issues to emerge from this literature review.

4.18 Key Issues Emerging from the Literature Review

PBL is a relatively new form of pedagogy and as such is still being actively researched in terms of its effectiveness and application. While the literature review has shown that researchers appear to agree that this appears to be a more enjoyable and engaging means of learning than other more traditional pedagogies, there is conflicting evidence regarding its effectiveness. The literature review has also identified dichotistic thinking in this area where, it appears that researchers who support PBL, do so very strongly while on the other hand those that are not in support of its use
demonstrate their opposition very strongly also. In this way it could be argued it has led to the polarising of researchers.

Another significant issue to emerge from this review relates to the range of definitions of PBL that exists and the various adaptations and forms in terms of how this model of pedagogy may be applied. What emerges is that there are many forms and interpretations of PBL that have been adopted by different institutions as it will be based on many contextual aspects. Due to this it is hardly surprising that there is no common approach as there cannot be an ideal model. It also emerges that the relative success of PBL in terms of academic achievement is highly dependent on how the methodology is applied and of course under what institutional and environmental context it is situated. This suggests that PBL could be seen as a unique construct at an institutional level where each institution has applied their own version of PBL as they saw fit, thus making comparisons and benchmarking across programmes difficult. In addition, there is a real lack of research carried out on PBL within the Irish context in general of PBL which is both surprising and an opportunity for future research projects.

Regarding power, the literature (and Foucault in particular) suggests that a power imbalance will always exist within people in society and that this can never really be avoided. That this is simply a fact of life. As the literature review has highlighted, different frameworks have been developed to theorise the various way in which power dynamics are enacted in educational settings. These frameworks provide a systemic and transparent way to explore the enactment of these elements. In addition, the role played by assessments must be considered. Particularly, when one considers the “double duty” requirements of assessments as suggested by Boud (2000) and that lecturers are typically responsible for this assessment process which may alienate students (Broughan and Jewel, 2012) within the area of education it is perhaps no surprise that this imbalance exists. The
literature review has also highlighted the confusion arising from the use of terms such as power, influence and control as these terms are used sometimes haphazardly which can result in confusion when reviewing these research papers. While there is a limited amount of research available around power and education, there is a real lack of research into power and PBL. This provides a significant opportunity for this research project to illuminate this area and, the part-time PBL student experience of power. Another aspect arising is how can researchers accurately measure the effects of power and its influence. It seems that researchers have struggled with developing a measurement tool that is robust and reliable, although the extent to which this can be achieved is debatable.

With identity in mind, it has become clear that research has focused on the process of learning within PBL, rather than of course the professional and personal identities that may be adopted by those enrolled in the programme. The lack of extant research available in this area suggests that this is one that researchers have not considered deeply up to now. A further issue lies in the creation of the in-group and the out-group which appear to be highly structured and tightly defined by the individual. However, to what extent is this dualistic thinking helpful? While SIT will argue that a person will possess strong feelings of attraction for a dedicated in-group and in doing so will also project strong feelings of aversion for an out-group, however, this dichotomy is not fixed in stone. It may be that, seeing identity as malleable and constructed, individuals may at different times express allegiance and aversion to the same group depending on the situation and context. This constructed element of academic identity be explored further to understand why these groups or individuals are considered unattractive or at the very least neutral. In addition, there is a lack of available research into whether the comparisons conducted between the in-group and out-group
change or adapt over time within an educational context. With this in mind it is important to consider what the factors might be that influence changes from the individual’s perspective. How stable are these views? While some distinctions between groups are secure and others less secure, how permanent might these be? How open to outside influence are these individuals? What can education managers and administrators do to influence these perspectives should they wish to do so? Also, there has been little emphasis placed on individual identity as compared with the quantity and depth of research into the identity of the group. Why is this the case? Perhaps it is simply more efficient and practical to look at groups rather than the individual or perhaps broader institutional goals and demands have contributed to this focus. These important questions all help to suggest future research projects in this area.
Methodology

5.1 Introduction

This chapter describes the development of the methodological approach taken within this study and is broken into four main parts. The first part (sections 5.2 – 5.4) positions the researcher ontologically and in doing so explores the concepts of ontology and epistemology and explains why these are important from the researcher’s perspective. The second part (sections 5.5 to 5.8) describes the nature of the qualitative research undertaken, the rationale for the chosen method and the structure of the research design, how the data was collected, and the method of analysis used. The third part (sections 5.9 – 5.12) describes the ethical considerations followed, the limitations of the study and conclusions arising from this chapter.

Initially, a discussion of the various methodological approaches available to the researcher is presented. In accordance with Gill and Johnson (1991), these are identified to inform the choice of methodology in the research when considering the nature and context of the research problem and the extent of available resource. The purpose of considering a philosophy of research is described by Carson et al., (2001) as a way of underpinning the choices and decisions involved in adopting a research position, thus providing a clearer purpose to specific research projects within the wider context. Therefore, it is acknowledged that the research strategy for this project did not spring fully-formed into being. Instead, it evolved as a “realised research strategy” comprising of planned, deliberate and unplanned emergent decisions and choices (Mintzberg, 1994).
5.2 Ontology and Epistemology

A crucial first step prior to commencing a research project of this nature is to firstly understand one’s own philosophical approach and to be aware that this approach will affect the rest of the methodology. The researcher needs to be aware of his/her own bias and constantly question assumptions and subjectivity throughout the research project. In order to do this, the researcher must explore his/her own view of ontology and epistemology. This is important because according to Dilts and Delozier (2000), each researcher will filter for preferences in his/her own world according to his/her metaprogrammes. With this in mind, this section begins by exploring and reflecting upon the nature, meaning and perception of ontology and epistemology and its impact on methodological decisions and choices. According to Crotty (1998) ontology can be referred to as the study of “being” and is concerned with “what is”, for instance the researchers’ understanding of what may exist and how one views reality or as suggested by Snape and Spencer (2003) what it may be feasible to understand about the world the researcher resides and suggest ontology be understood as the nature of the world and what knowledge we as researchers can accumulate about it. Further, Jupp (2011) states that ontology is “a concept concerned with the existence of, and relationship between, different aspects of society such as social actors, cultural norms and social structures” (no page). Bryman (2008) defines the term “social ontology” as a philosophical view in research which concerns the nature of social entities, for instance do these social entities possess the ability to be independent from social actors or are they merely the creation of these actors based on their views and interpretations. Along this vein, Ormston et al., (2014) state that ontology is concerned with the query as to “whether or not there is a social reality that exists independently from human conceptions and interpretations and, closely related to this, whether there is a shared social reality or only, multiple context-specific ones” (P. 4).
In terms of epistemology, this is understood to be the views and assumptions we make about the nature of knowledge itself (Richards, 2003) or very simply according to Crotty (1998), a way of looking at the world and making sense of it. Crotty further states that it deals with the “nature” of knowledge, its possibility, scope and legitimacy. Al-Saadi (2014) suggests that epistemology involves knowledge and necessarily, it embodies a certain understanding of what the knowledge entails. Cohen and Manion (2001) and Morrison (2007) suggest that when attempting to understand the nature of epistemology one needs to deal with the assumptions one makes about “the very bases of knowledge - its nature and form, how it can be acquired and how communicated to other human beings” (P. 7). In developing this further, Al-Saadi (2014) states that it is important to note how the kind of epistemological assumptions we make about knowledge affects how we proceed when uncovering knowledge of human behaviour, particularly within a social setting or context. This level of understanding will have a direct effect on the research method that may be used, for instance, if the information required is thought to be hard and tangible in nature then this is likely to result in the researcher adopting an observer role with a reliance on testing and measuring. However, if the required information is considered to be more subjective and personal in nature then this would normally require the researcher to become more involved with his/her subjects and adopt a different approach to gather the data (Creswell, 2013).

Since the 1950’s, the epistemological status of science has come into question (Phillips, 1992). This started with Popper’s “Logic of Scientific Discovery” in 1959, wherein scientific claims could never be proven or fully justified and led to Kuhn’s “The Structure of Scientific Revolutions” in 1970. By the 1970’s the “rationality of science” had become a central debate, highlighted by Newton-Smith:
“The scientific community sees itself as the very paradigm of institutionalised rationality. It is taken to be in possession of something, the scientific method, which generates a “logic of justification”....For Feyerbend, Kuhn and others, not only does scientific practice not live up to the image the community projects, it could not do so. For that image, it is said, embodies untenable assumptions concerning the objectivity of truth, the role of evidence and the invariance of meanings” (Newton-Smith, 1981:2).

In essence, it has become clear that scientists had come to belong to a research community where they shared a paradigm, a research tradition of world-view to which they were committed (Brown, 1995). Paradigms in the human and social sciences help us understand phenomena (Cresswell, 1994) and advance assumptions about the social world, guiding how research should be conducted and what constitutes legitimate problems, solutions and criteria of “proof” (Kuhn, 1970; Firestone, 1987). Since the 1960’s, debate on underlying epistemological issues has continued vigorously (Miles and Huberman, 1994). Indeed, the “dilemma of choice” between paradigms facing social science researchers, particularly in the world of education and business, has been highlighted by many (Lincoln and Guba, 1985; Philips, 1987; Creswell, 1994; Brown, 1995). As paradigms encompass both theories and methods, there is a need to examine and understand the fundamental principles underlying the different ontological positions of paradigms to select a framework and format for pursuing the methodology that resides comfortably with the researcher’s own beliefs and best captures the essence of the research project.
5.3 Positivism Vs. Interpretivism

The positivist paradigm is sometimes termed the traditional, the quantitative, the experimental or the empiricist paradigm and assumes that science quantitatively measures independent facts about a single apprehensible reality (Tsoukas, 1989). Furthermore, a positivist ontology assumes that individuals have direct, unmediated access to the real world and subscribes to the theory that it is possible to obtain hard, secure objective knowledge about a single external reality (Carson et al., 2001). The positivist ontology holds that the world is external and objective, therefore its epistemology is based on the belief that observers are independent and that science is value-free. The core operational goals of the positivist or natural science school therefore seek to break social phenomena into quantifiable variables that may be studied independently and, through causal analysis and hypotheses testing, develop theories and laws that predict future observations (Gill and Johnson, 1991). Positivists seek to maintain a clear distinction between facts and value judgements, search for objectivity and strive to use a consistently rational, verbal and logical approach to their object of research. Hence, positivists use a set of specific, formalised techniques for trying to discover and measure independent facts about a single reality which is assumed to exist, driven by natural laws and mechanisms (Carson et al., 2001).

In comparison, the interpretivist ontology holds that individuals do not have direct access to the real world, but that their knowledge of this perceived world is meaningful in its own terms and can be understood through careful use of appropriate interpretivist and relativist procedures. (Carson et al., 2001). The interpretivist paradigm (Smith, 1983) has been alternatively termed the constructivist or naturalistic approach (Lincoln and Guba, 1985), the post-positivist or post-modern perspective (Quantz, 1992) or the qualitative paradigm (Cresswell, 1994). This approach began as a countermovement to the positivist tradition in the late 19th century (Smith, 1983).
basis for interpretivism or naturalism comes from the disciplines of anthropology and sociology, which seek to examine the internal logic of human action developing an understanding of the frames of reference out of which that behaviour arises (Gill and Johnson, 1991; Creswell, 1994). The distance advocated by the positivists between the researcher and the subject, necessary in the deductive approach, is replaced by an inductive approach wherein close observation and interaction occurs with the subject in an attempt to identify and explain patterns of behaviour. In order to understand the assumptions of each paradigm, writers have contrasted them on several dimensions (Firestone, 1987; Guba and Lincoln, 1994). Although these contrasts are a heuristic device, they facilitate the comparison and contrast of the two alternative paradigms based on ontological, epistemological and methodological characteristics (Patton, 1988).

The following Table 5, adapted from Carson et al., (2001, p. 6) illustrates the broad definition of the positivist and interpretivist ontologies and epistemologies and the characteristics of the relevant methodologies for both philosophies.
Table 5. Positivist and Interpretivist Ontologies and Epistemologies (Carson et al., 2001: 6)

<table>
<thead>
<tr>
<th></th>
<th>Positivism</th>
<th>Interpretivism / Post Positivist</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of being / world</td>
<td>Have direct access to real world</td>
<td>No direct access to real world</td>
</tr>
<tr>
<td>Reality</td>
<td>Single external reality</td>
<td>No single external reality</td>
</tr>
<tr>
<td><strong>Epistemology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grounds of knowledge</td>
<td>Possible to obtain hard, secure objective knowledge</td>
<td>Understood through “perceived” knowledge</td>
</tr>
<tr>
<td>Relationship between reality &amp; research</td>
<td>Research focusses on generalisation and abstraction</td>
<td>Research focusses on the specific and the concrete</td>
</tr>
<tr>
<td></td>
<td>Thought governed by hypothesis and stated theories</td>
<td>Seeking to understand specific context</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus of research</td>
<td>Concentrates on description and explanation</td>
<td>Concentrates on understanding and interpretation</td>
</tr>
<tr>
<td><strong>Role of Researcher</strong></td>
<td>Plays the role of the detached, external observer</td>
<td>Researchers want to experience what they are studying</td>
</tr>
<tr>
<td></td>
<td>Clear distinction between reason and feeling</td>
<td>Allow feelings and reason to govern actions</td>
</tr>
<tr>
<td></td>
<td>Aim to discover external reality rather than creating the object of the study</td>
<td>Partially create what is studied, what is the meaning of the phenomena</td>
</tr>
<tr>
<td></td>
<td>Strive to use rational, consistent verbal, logical approach</td>
<td>Use of pre-understanding is important</td>
</tr>
<tr>
<td></td>
<td>Seek to maintain clear distinction between facts and value judgements</td>
<td>Distinction between facts and value judgements less clear and more blurred</td>
</tr>
<tr>
<td></td>
<td>Distinction between science and personal experience</td>
<td>Accept influence from both science and personal experience</td>
</tr>
<tr>
<td><strong>Techniques used by Researcher</strong></td>
<td>Formalised, statistical and mathematical methods predominantly</td>
<td>Primarily non-quantitative in nature</td>
</tr>
</tbody>
</table>
Traditionally, positivism was based on empirical testing as the sole means of theory justification. After much antagonistic debate on the relevance of scientific theories in the areas of education and business marketing, there is now more general agreement that such a polarised means of theory justification cannot be maintained as a viable description of the scientific process or as a normative prescription for the conduct of scientific activities (Anderson, 1983, p. 25). Specifically, Phillips (1992) believes that positivism is “a generalised term of abuse” (1992, p. 95) and attempts to undermine some of the assumptions and misconceptions about positivism. He confronts researchers such as Guba and Lincoln (1994) who position themselves at poles to positivism and these different perspectives could instead be perceived as complementary, all offering “truth” on a particular phenomenon.

Carson et al., (2001) propose a range of philosophies in the context of positivist / scientific and relativist / interpretivist paradigms. Figure 4 (below) illustrates how the philosophies on the right-hand side are positioned within the interpretivist domain, however some of the philosophies draw on the positivism domain in their origin and structure.
Although distinction between the two broad paradigms may be clear at a philosophical level, when the issues of qualitative and quantitative methods and research are addressed, the distinction becomes unclear (Carson et al., 2001). Indeed, it appears that the lines between epistemologies have become blurred and current perspectives such as realism, pragmatism and critical theory have qualities of both interpretivism and positivism (Miles and Huberman, 1994, Carson et al., 2001). Referring to Figure 1, Carson et al., (2001) position themselves between positivism at one end and interpretivism at the other extreme end of the spectrum. A range of post-positivist approaches is proposed, which incorporates this more balanced pluralistic approach to research (Carson et al., 2001).
Miles and Huberman (1994) represent other researchers who have adopted an ontological stance positioned between positivism and interpretivism. These researchers perceive themselves as “transcendental realists”, implying that social phenomena exist not only in the mind but also in the objective world and that some lawful and stable relationships can be found to exist. Rather than taking a pure deductive approach of classical positivism, explanation flows from an account of how differing structures produced the events observed. They explain that transcendental realism “calls both for causal explanation and for the evidence to show that each entity or event is an instance of explanation” (1994, p. 5). Therefore, it appears increasingly difficult to find researchers encamped in one fixed place along what can be perceived as a stereotyped continuum between interpretivism and positivism. Moreover, while some researchers (e.g. Cresswell and Clark, 2017, Thanh and Thanh, 2015) perceive positivism and interpretivism as two opposing paradigms, representing different approaches and methodologies, there appears to be growing support for increased understanding and tolerance of each perspective facilitating greater “plurality”. This demand for greater integration and inclusion has been highlighted by researchers such as Silverman (2016), Szmigin and Foxall (2000), Fischer (1990) and Belk (1986) who advocate greater co-operation and synergy between disciplines, thus facilitating improved understanding and superior results. According to Fischer (1990), although the traditions of positivism and interpretivism are “incommensurable”, they are not “incomparable” or “contradictory”. Indeed, there appear to be benefits in recognising the tangency between the causal laws sought in positivist research and the hermeneutic rules sought in interpretivist research. Therefore, researchers should move beyond the “either / or” debate on the merits of one research stream versus another (Fischer, 1990). Clearly, education-based research “has little to gain from continued argument” and both camps should refocus from the differences between the two sides to the valuable contribution each
makes to research as a whole (Szmigin and Foxall, 2000). Consequently, there appears to be no one best method and it may be more useful to look at the value and validity of a number of theories for the evaluation of phenomena (Cresswell and Clark, 2017).

5.4 Choosing an Ontological Position: Interpretivism

It is widely accepted that studies which seek to obtain an in-depth, holistic understanding of subjectively experienced phenomena are best suited to research undertaken from an interpretative perspective (Hirschman, 1986). This approach to research aims to illuminate the key elements of experience that provide the most meaning to individuals (Hudson and Murray, 1986). An interpretivist approach was therefore ideally suited to this study as it essentially sought to explore participants’ understanding of the nature and meaning of their experiences. This required gaining access to rich, contextualised accounts of the individual experiences within the master programme. Data of this type often require that one adopt a co-operative mode of inquiry as this allows one the opportunity to dig deeper into the specifics of the experience, uncovering aspects to which individuals associate the most meaning and value. The overall nature of the study and the type of data required therefore pointed to the suitability of adopting an interpretivist approach to conducting the research. Essentially, the desire to develop a more insightful and informed understanding of these people’s experience was believed to be more linked with research undertaken from an interpretative perspective, given that the overall aim of interpretivism is to gain a more profound understanding of phenomenon in question (Hudson and Murray, 1986; Hudson and Ozanne, 1988; Guba and Lincoln, 1994).
As previously discussed, the overall aim of this study was to gain an in-depth understanding of these students lived experience in a master programme run through problem-based learning. It is very important to note that the intention at the start of this study was simply to explore the students’ experience of the PBL course without any pre-conceived ideas of what would emerge. In this way at the outset an exploratory qualitative approach was adopted to attempt to understand the lived experiences as perceived by the students. By drawing on this methodological approach and looking at the exploration of students’ experiences, the researcher was able to offer an interpretation of these people’s experiences of education. In addition to helping understand these participants’ experiences, this methodological approach also provided an excellent means of addressing the research questions underpinning the study. Given that these were heavily weighted towards contextualising participants’ experience and gaining a comprehensive understanding of the power and social identity implications associated with a master’s degree operated through PBL, it was felt that an exploratory qualitative study would best capture the articulation of the students’ experiences.

The study was therefore located within the interpretivist paradigm and provided a comprehensive, informed interpretation of student experiences of a master’s degree programme conducted through PBL pedagogy. While other research projects tended to focus on the use of power within the classroom at primary and secondary levels, very few looked at power relations within a third level context and none emerged that demonstrated the influence of social identity theory (SIT) within PBL. This objective was underpinned by the two key research questions which focused on contextualising students’ accounts and reflections through exploring the power dynamic and social identity factors within the master programme. Within this, the study explored the subjective power dynamic between the student and the lecturer as seen through the eyes of the student and how this
helped shape their behaviour. In doing so, the work of Foucault (1977) was heavily influential. The study also explored the role of power as demonstrated by the lecturer through their actions (both explicit and implicit) and how the students responded to these actions. In addition, the study examines the influence played by social identity theory and in this area the work carried out by Tajfel (1959, 1969, 1981) and Sherif (1956, 1966) was illuminating. In doing so, the study provides a rich, contextualised account of the most pertinent aspects of interpersonal power relations and social identity theory within a third level educational programme.

5.5 Qualitative Research

As the researcher chose a qualitative approach, this section briefly outlines what is meant by qualitative research and the rationale for this choice. Qualitative research as described by Corbin & Strauss (2014) is a type of research in which the researcher collects and interprets data, making the researcher as much a part of the research process as the participants and the data they provide in addition to embracing an open and flexible outlook on the research project. According to Creswell (2013), reasons to use qualitative research include a desire to explore the inner experiences of participants, explore how meanings are formed and transformed and to “take a holistic and comprehensive approach to the study of phenomena” (Corbin & Strauss, 2014, p. 5). The methods used by qualitative researchers exemplify a common belief that they can provide a “deeper” understanding of social phenomena than would be obtained from purely quantitative data (Silverman, 2000). Hence, the benefits offered by qualitative research around capturing experiences and developing deep insights into phenomena make it an appropriate method to use to explore the area of educational experience.
Furthermore, qualitative research has been defined as;

“a situated activity that locates the observer in the world. Qualitative research consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self. At this level qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (Denzin & Lincoln, 2011, p.3).

According to Creswell (2013, p. 44), qualitative research “begins with assumptions and the use of interpretive / theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem”. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is both inductive and deductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the researcher, a complex description and interpretation of the problem, and its contribution to the literature or a call for change.

In addition, qualitative research is “drawn to a broad, interpretive, postmodern, feminist and critical sensibility” as well as to “more narrowly defined positivist postpositivistic, humanistic and naturalistic conceptions of human experience” (Nelson, Treichler & Grossberg, 1992, p. 4).

Qualitative research, according to Merriman et al., (2002, p. 6)
“attempts to understand and make sense of phenomena from the participant’s perspective. The researcher can approach the phenomenon from an interpretive, critical or postmodern stance. All qualitative research is characterised by the search for meaning and understanding, the researcher is the primary instrument of data collection and analysis, an inductive investigative strategy, and a richly descriptive end product”.

When considering qualitative research, there is a high degree of common agreement regarding its core characteristics. Authors such as Marshall and Rossman (2016), Creswell (2013) and Hatch (2002) agree on the following:

- **Natural setting:** Qualitative researchers usually gather data in the same location where participants experience the issue or phenomenon under study. The information gathered by talking directly to people and seeing them behave and act within their own natural environment is a major aspect of qualitative research. In the natural setting, the researchers have face-to-face interaction, in many cases over an extended period.

- **Researcher as key instrument:** Qualitative researchers collect data themselves through examining documents, observing behaviour, or interviewing participants. They may use an instrument for collecting this data, such as a questionnaire or a list of semi-structured questions or keywords, but the researchers are the ones who gather the information. They do not tend to use or rely on questionnaires or instruments developed by other researchers.
• Quality source of data: Qualitative researchers gather quality forms of data, such as from interviews, observations, documents, and audio-visual information. Then the researchers review the data, make sense of it, and organise it into categories or themes.

• Inductive and deductive data analysis: Qualitative researchers normally build their patterns, categories, and themes from the bottom up by organising the data into increasingly more abstract units of information. This inductive process illustrates working back and forth between the themes and the database until the researchers have established a comprehensive set of themes. Then deductively, the researchers look back at their data from the themes to determine if more evidence can support each theme or whether they need to gather additional information. Thus, while the process begins inductively, deductive thinking also plays an important role as the analysis moves forward.

• Participants’ meanings: In the entire qualitative research process, the researcher keeps a focus on learning the meaning that the participants hold about the problem or issue, not the meaning that the researchers bring to the research or that writers express in the literature.

• Emergent design: The research process for qualitative researchers is emergent. This means that the initial plan for research cannot be tightly prescribed, and some or all phases of the process may change or shift after the researcher enters the field and begins to collect data.
For example, the questions may change, the forms of data collection may shift, and the individuals’ studied and the sites visited may be modified. The key idea behind qualitative research is to learn about the problem or issue from participants and to address the research to obtain that information.

- Reflexivity: In qualitative research, the enquirer reflects about how their role in the study and their personal background, culture, and experiences hold potential for shaping their interpretations, such as the themes they advance and the meaning they ascribe to the data. This aspect of the methods is more than merely advancing biases and values in the study, but how the background of the researchers may shape the direction of the study. This examination of the researchers own reflexivity was completed and detailed in the Discussion Chapter.

- Holistic account: Qualitative researchers try to develop a complex picture of the problem or issue under study. This involves reporting multiple perspectives, identifying the many factors involved in a situation, and generally sketching the larger picture that emerges. A visual model of many facets of a process or a central phenomenon aids in establishing this holistic picture (Creswell, 2013).
5.6 Research Study

To provide clarity on the process used to gather and analyse the data emerging from the primary research in this study, the following flowchart, Figure 5, serves to help illustrate the key steps followed by the researcher. There is further detailed information provided in the later sections that provide an insight into the detail behind these steps.

Figure 5 - Flowchart Outlining Primary Research Process in Study
5.6.1 Participants

The research that was undertaken as part of this study was focused on students that had graduated from a business Level 9 masters programme that is run either over one year full-time or two years on a part-time basis in a third level institute in Ireland. All participants in this study were volunteers and over the age of eighteen. Furthermore, participants were all from the part-time programme and attended the Institute one evening each week for a three-hour session and one Saturday each month for eight hours. These part-time students were aged twenty-eight years on average in full-time employment. In terms of gender, five were male and the remaining eight were female providing a 38% (M) / 62% (F) gender mix. These participants were students of the Institute which is relatively small with a total student population of approximately 8,000 and a staff body of around 360. The Institute campus is spread over several locations within the local city and wider region and caters for courses positioned at HETAC Level 6 (Certificate) through to Level 10 (PhD) whilst also providing craft apprentices and continuing education (see further detail regarding the Institute, the Population and the Participants in the Research Findings Chapter).

5.6.2 Sampling

A non-probability sampling method was used in this thesis to select a group from the cohorts of students that had graduated from the programme in the past number of years. The addition of criterion sampling, as suggested by Creswell (2007), helped further focus the subject population and further promote the probability of student involvement. Two criteria were utilized to determine if students qualified to be selected as respondents for the research. Only participants who (a) indicated they were willing to participate in the study, and (b) were less than three years post
completion of the PBL master programme at the Institute. Then a purposeful sampling strategy used to select respondents. This approach attempted to best develop a sample where multiple perspectives would offer both depth and diversity (Creswell, 2007) and where selected respondents were likely to provide information relative to the phenomenon being studied (Maxwell, 2005) in that they were students of the programme relatively recently and agreed to participate without any offer of inducement or reward.

Next, a modified snowball sampling effort was incorporated to further connect with potential participants. A promotional email sent to recent graduates of the PBL programme and those that responded favourably were requested to forward the information on to other potential students who met the criterion. Eighteen graduates responded to the promotional email and a further two arose through the information being forwarded by their colleagues. Therefore, in total, twenty were emailed directly and of these sixteen indicated that they would be willing to participate in the study. Of these sixteen, one changed his mind due to personal reasons and another two moved out of the region due to work commitments before the interview stage commenced and opted to be excluded from the research. According to Locke (2001), progressively moving through a sample can help with conceptual clarity until no additional concepts surface. Appropriate saturation occurs when “no new or relevant data seem to emerge regarding a category, the category is well developed in terms of its properties and dimensions, and the relationships among categories are well established and validated” (Strauss & Corbin, 1998, p. 212). Based on the thirteen interviews conducted it was felt that no new points / issues were being raised towards the end of the interview stage, so a second round of interviews was deemed to be unnecessary. Therefore, the total sample for this study involved thirteen third level students who had graduated from a Master programme run using a problem-based learning (PBL) form of pedagogy at the Institute. Appropriate ethical
approval was provided by the Faculty of Education and Health Sciences Research Ethics Committee at the University of Limerick (UL) and permission was provided by the Ethics Committee at the Institute. See Appendix 2.

5.6.3 Research Tools

Interviewing is a particularly effective technique for collecting data about the lived experience of participants (Van den Berg, 2005) where surveys fail to do so. The chosen research tool for this was the semi-structured interview as this was believed to offer the optimum level of flexibility and control over the interview process and the ensuing discussions with the respondent. It offered flexibility in that follow-up questions could be asked, and responses deemed interesting could be probed and explored further as necessary. A detailed rationale justifying the usage of the interview as the chosen research method is provided in the next section where the various methods available are described and the case for selecting the chosen method is made. Table 6 below highlights the pseudonym given to each respondent in including the date of the interview, its start time and the interview duration.
Table 6. Interview Schedule

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Date of Interview</th>
<th>Start</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frank</td>
<td>June 7th 2017</td>
<td>1:28pm</td>
</tr>
<tr>
<td>2</td>
<td>Dan</td>
<td>June 9th 2017</td>
<td>1:18pm</td>
</tr>
<tr>
<td>3</td>
<td>Mary</td>
<td>June 14th 2017</td>
<td>1:48pm</td>
</tr>
<tr>
<td>4</td>
<td>Sophie</td>
<td>June 16th 2017</td>
<td>3:13pm</td>
</tr>
<tr>
<td>5</td>
<td>Laura</td>
<td>June 16th 2017</td>
<td>4:54pm</td>
</tr>
<tr>
<td>6</td>
<td>Sarah</td>
<td>June 30th 2017</td>
<td>1:07pm</td>
</tr>
<tr>
<td>7</td>
<td>Stuart</td>
<td>July 3rd 2017</td>
<td>1:05pm</td>
</tr>
<tr>
<td>8</td>
<td>Karen</td>
<td>July 26th 2017</td>
<td>11:50am</td>
</tr>
<tr>
<td>9</td>
<td>Aidan</td>
<td>July 27th 2017</td>
<td>1:59pm</td>
</tr>
<tr>
<td>10</td>
<td>Michelle</td>
<td>August 24th 2017</td>
<td>8:32pm</td>
</tr>
<tr>
<td>11</td>
<td>Anne</td>
<td>September 7th 2017</td>
<td>12:47pm</td>
</tr>
<tr>
<td>12</td>
<td>Sinead</td>
<td>September 7th 2017</td>
<td>4:10pm</td>
</tr>
<tr>
<td>13</td>
<td>Claire</td>
<td>September 22nd 2017</td>
<td>11:52am</td>
</tr>
</tbody>
</table>

During the research conducted for this thesis the interviews were carried out in a pre-booked meeting room at the Institute campus at various times during the day and early evening to suit the various needs of the participants. It was believed that this setting for interviews was a confidential environment where students felt safe sharing without distraction. Those meeting the inclusionary criteria were contacted to arrange a convenient time for an interview. Participants were asked to attend an interview scheduled for approximately forty-five to sixty minutes. In some cases, the interview session went slightly over this time but for the majority it was around fifty minutes. The participants may have benefited knowing they were contributing to a body of knowledge that further informed concepts linked to the Institute and programme’s student experience. All participant identifiers and responses were protected with the strictest level of confidentiality and pseudonyms were immediately applied at the time of consent to replace personal identifiers. All data is stored for at least three years in a locked environment in the principal investigator’s office.
Documents linking specific participant information to chosen pseudonyms was securely stored in a separate file and only reviewed by the principal investigator. Data collected from individual respondents was reported in either summary format, i.e. “a number of students suggested that” or their fictitious name if applied as a direct quote. In line with best practice according to Creswell (2013), participant information was coded with a chosen pseudonym from the onset of the project and did not represent any other identifiers from that point on and the total sample for this study comprised of thirteen students. The questions used in the interview were designed to explore the experiences of students on the PBL programme at the Institute and as mentioned previously were conducted with a semi-structured approach reflecting on the framework presented in the literature. Although specific interview questions (Appendix 3) were prepared, exact wording and order remained flexible to best navigate the interactive experience with each respondent (Merriam, 1998). The questions were tested with two Institute staff members to ensure clarity with the selected questions. Interviews were audio recorded for later transcription using an independent transcriber and then analysed. To ensure accuracy participants were provided with an electronic copy of their transcribed interview and asked to verify correctness and clarify any discrepancies.
5.7 Research Design

Qualitative researchers face many choices for techniques to generate data ranging from grounded theory development and practice, narratology, storytelling, transcript poetry, classical ethnography, state or governmental studies, research and service demonstrations, focus groups, case studies, participant observation, qualitative review of statistics in order to predict future happenings, or shadowing, among many others (Glaser & Strauss, 1967). Indeed, qualitative methods are used in various methodological approaches, such as action research which has sociological basis, or actor-network theory.

The most common method used to generate data in qualitative research is an interview which may be structured, semi-structured or unstructured and is widely accepted that interviews in one form or another can provide researchers with rich and detailed qualitative data for understanding participants’ experiences, how they describe those experiences, and the meaning they make of those experiences (Rubin & Rubin, 2012). Other ways to generate data include group discussions or focus groups, observations, reflective field notes, texts, pictures, and other materials (Savin-Baden & Major, 2013). Some materials considered to be very popular among qualitative researchers are the studies of photographs, public and official documents, personal documents, and historical items in addition to images in the media and literature fields (Taylor & Bogdan, 1984). Given the centrality of interviews for qualitative research, books and articles on conducting research interviews abound. These existing resources typically focus on: the conditions fostering quality interviews, such as gaining access to and selecting participants (Rubin & Rubin, 2012; Seidman, 1998; Weiss, 1994); building trust (Rubin & Rubin, 2012); the location and length of time of the interview (Weiss, 1994); the order, quality, and clarity of questions (Patton, 2015; Rubin & Rubin, 2012); and the overall process of conducting an interview (Brinkmann & Kvale, 2015; Patton, 2015). To
analyse qualitative data, the researcher seeks meaning from all the data that is available. The data may be categorized and sorted into patterns (i.e., pattern or thematic analyses) as the primary basis for organizing and reporting the study findings (e.g., activities in the home; interactions with government) (Racino & O'Connor, 1994).

The ways of participating and observing can vary widely from setting to setting as exemplified by Schwartzman's research on Ethnography in Organizations (1993), or Copeland's “Studying Families” (1991). Participant observation is a strategy of reflexive learning, not a single method of observing (Lindloff & Taylor, 2002) and has been described as a continuum of between participation and observation. In participant observation researchers typically become members of a culture, group, or setting, and adopt roles to conform to that setting. In doing so, the aim is for the researcher to gain a closer insight into the culture's practices, motivations, and emotions. It is argued that the researchers' ability to understand the experiences of the culture may be inhibited if they observe without participating. With regards to the research undertaken in this thesis it was believed that the use of observation methods, while probably highly beneficial, would be counter-productive in that due to ethical concerns and the existing power imbalance between lecturer and student only those that had graduated from the programme were eligible to participate. Further, to observe the students performing in their groups within the programme would require all members of that group to agree to be observed. Given that not all students might agree this was deemed to be non-feasible. In addition, the very real concern that those subjects that are aware they are being observed may behave in an unnatural manner (Creswell, 2013). Further and possibly most importantly, due to this research looking at students’ perspectives on their experience while enrolled on the programme, observations might not be helpful in that regard. It is likely that they would just provide the researchers’ own perspective on what the students are doing.
Some distinctive qualitative methods are the use of focus groups and key informant interviews, the latter often identified through sophisticated and sometimes, elitist, snowballing techniques. According to Morgan (1988), the focus group technique involves a moderator facilitating a small group discussion between selected individuals on a particular topic, with video and transcribed data recorded, and is useful in a coordinated research approach studying phenomenon in diverse ways in different environments with distinct stakeholders often excluded from traditional processes. This method is particularly popular in market research and testing new initiatives with existing or potential customers within the commercial marketplace. While focus groups do indeed provide very tangible benefits such as being cost and time effective to operate in addition to offering respondents the opportunity to build on each other’s views and comments (Mansell et al., 2004), they were deemed to be unsuitable in this case due to their limitations. These limitations include the risk of “hijack” taking place by outspoken individuals that may dominate the session (Krueger et al., 2014) and the occasionally quite personal nature of the material being discussed such as power relations and social identity theory. While acknowledging the obvious benefits of focus groups, the potential risks to the quality of the research being undertaken were considered too great and therefore this method was not adopted.

It is worth noting that researchers in a qualitative design seek interpretive information from a participant sample as small as one individual and up to everyone within the organisation (McNabb, 2002). Indeed, Boyd (2001) suggests research saturation can typically be attained with two to ten participants. Creswell (1998) recommends a phenomenological study involve “long interviews with up to 10 people” (p. 65). Based on this study’s single occurrence face to face interview design, it was planned to start with an approximate sample of at least ten participants. Once the initial sample was determined, the researcher was prepared to broaden the sample up to fifteen students.
if necessary to further clarify emerging data until informational saturation had occurred (Strauss and Corbin, 1998).

5.8 Data Analysis Process and Procedures

Braun and Clarke’s (2006) thematic analysis model “is a highly regarded and well cited form of analysis in qualitative research” (Guest, 2012, p. 11) that is concerned with emphasizing, pinpointing, examining, and recording patterns within data. Using this model (see Figure 6 below), themes refer to patterns across data sets that are important to the description of a phenomenon and are associated to a specific research question (Braun and Clarke, 2006). For the purpose of this study, Braun and Clarke’s (2006) model was used as a means of identifying the key theme to emerge from the data collected from the interviews with the graduates of the PBL programme. The application of this model to the data gathered is detailed in 6.3 Data Analysis section in the next chapter.
Figure 6 – Braun and Clarke (2006) 6 Step Model of Thematic Analysis (Flow Chart)
5.9 Ethical Issues

In qualitative research the most common tools used for data collection are interview and participant observation (Parahoo, 2014). In many cases the participants are known to the researcher and consequently anonymity is not possible. The researcher must therefore assure participants that their identities will not be revealed to the reader and the raw data collected will not be released to any third party (Parahoo, 2006). Participants should always have the right to give informed consent regarding their participation in any research study. In order to do this, participants should be fully aware of the purpose of the study, what sort of information is being sought, how it will be used and the implications for them as contributors to the research. This moral principle is known as autonomy (Beauchamp and Childress, 2001); it also implies that participants have the right to withdraw from the research at any time (Ryan et al., 2007). Resnik (2011, p.1) defines ethics as “norms for conduct that distinguish between acceptable and unacceptable behavior”. In addition, Strike (2006) holds the view that “the integrity of research and the credibility of the community require that systematic bias in judging research be examined and eliminated” (p.58). Strike comments on four forms of bias to be avoided:

1. Intellectual narrowness – judging all work solely by the standards appropriate to one’s own paradigm.

2. Willful or inadvertent discrimination – based on race, gender, ethnicity, sexual preference, religion or personal animosity.

3. Advocacy – distorting research to favor one’s cause or convictions.

4. Class bias – inherent in the fact that researchers have interests and outlooks as a group.
Furthermore, Resnik (2011) holds the view that while rules, policies and procedures are very useful, they do not cover every situation and can often be conflicting and require careful interpretation. He states that the decision-making process within research is a learning experience where the researcher gradually understands how to interpret, assess and apply various research rules and “how to apply various research rules and how to make decisions and to act in various situations” (2011, p. 4). At all times was the welfare and position of the participants respected in that all were provided with the informed consent document (see Appendix 4) as a preliminary step to the interview which outlined the purpose, eligibility, involved commitment, discussion of risk and benefit, and associated confidentiality of the experience. This study presented only minimal risk to those who partook because data was collected and communicated through the anonymity of a pseudonym. Participants did not receive any form of payment or service as compensation for their involvement with the research other than being offered tea / coffee in terms of refreshments. The welfare of study participants guided all stages of this project. Participants were made aware of both the scope of the project and avenues available to them should they ever feel uncomfortable any stage in the process. It was also made clear that participants had the ability to cease involvement without any recourse. The researcher abided by a strict code of confidentiality and maintained data and records in a locked protected environment. A member checking process was employed where respondents were requested to acknowledge that their transcribed interview accurately reflected their comments. See Appendix 5 for this member checking document referred to as “Participant Verification Sheet” within this study.
5.10 Rigor and Trustworthiness

In much quantitatively-oriented social science literature, qualitative research has often been treated as a relatively minor methodology. As such, it is suggested that it is most useful and fitting at early or “exploratory” stages of the study (Silverman, 2000). Despite some authors’ “friendly” use of “non-quantified data”, they assume that statistical analysis is the bedrock of research (Singleton et al., 1993) and the reservations are based on the reliability of the categorisation of the qualitative data. It is interesting to note that rigor within qualitative research is still questioned, perhaps this is not surprising given that qualitative research is still challenged by some researchers (Lincoln and Guba, 1991). In terms of attempting to appreciate rigor within research, it may be thought of as the quality or state of being very exact, careful, or with strict precision or indeed simply being thorough and accurate (Tappen, 2011).

Trustworthiness on the other hand refers to “quality, authenticity, and truthfulness of findings of qualitative research” (Cypress, 2017, p. 254). According to Schmindt (2015), it equates to the degree of confidence a reviewer might possess. Yin (1994) describes trustworthiness as a criterion to judge the quality of a research design. Further, Guba and Lincoln (1989) refer to trustworthiness addressed methods that can ensure the researcher conducts the research process as correctly as possible.

Other terms to consider here are reliability and validity. Reliability refers to the degree of consistency with which instances are assigned to the same category by different observers or by the same observer in different occasions (Hammersley, 1992, p. 67). Validity is defined by Hammersley (1990) as “truth interpreted as the extent to which an account accurately represents the social phenomena to which it refers” (1990, p. 57). Therefore, the assumptions that social science research can only be valid if based on experimental data, official statistics or random
sampling of populations, and that quantified data are the only valid or generalizable facts, have been rejected (Silverman, 2000).

Regardless of ontological position, Carson et al., (2001) propose that the “trustworthiness” of qualitative findings depends on an assessment of the dimensions of credibility, dependability and conformability through sound and rigorous methodological progression (2001: 67). They suggest the following guidelines in maximising credibility, conformability and dependability:

1. Careful use, interpretation, examination and assessment of appropriate literature, whether through referencing conceptual frameworks, prior theory or empirical results.

2. Careful justification of the qualitative research methodologies employed in a study and specifically their appropriateness, merits and values, all of which will have substantial previous justification in the methodological literature.

3. Careful structuring of data analysis to ensure full and descriptive evaluation and assessment, particularly in relation to data of key significance. (2001: 67).

Through following the above principles on use of prior theory, research methodologies and data analysis, the validity and reliability of qualitative findings are maximised. In addition, the researchers own reflexivity is considered and this is examined in detail within the Researcher Chapter.
5.11 Limitations of the study

One possible limitation of this research study is the sample size; there were thirteen interview participants in total. This is important to note as this study reflects the views of a small number of students towards one particular master programme administered through a PBL type pedagogy. The reader should note that while the findings are not generalizable to other contexts and PBL programmes the questions raised by this study may be. It is also important to note that small sample sizes are typical in the literature regarding exploring student perceptions using interviews in higher education. Furthermore, the sampling of students to participate in this study was purposive. In purposive sampling, the sample is judged on the basis of the purpose and rationale for each study and the sampling strategy used to achieve the purpose of the study. The trustworthiness, meaningfulness, and insights generated from qualitative inquiry have more to do with the information-richness of the cases selected and the observational/analytical capabilities of the researcher than the sample size (Silverman, 2016). The sample was necessarily drawn from graduates of the programme who volunteered to participate in the study. Although this research may be limited by a small sample from a single third level institution, it is suggested that they are, if not generalizable, strongly indicative of the experience of students in PBL based programmes.

A further limitation concerns the questions used in the semi-structured interviews. While these were indeed pilot tested, this testing was not conducted with students from the respective programme. A testing phase was instead conducted with a small group of lecturers involved in the programme. While there is potential that the questions used in the semi-structured interviews were not oriented towards the students enough from a testing perspective, any potential negative outcomes are considered unlikely given the knowledge and experience of the lecturers in question.
Their insights into the programme since its inception proved to be highly valuable at this stage of the research.

Another possible limitation could be that the students who participated in this study are in fact graduates of the Institute and their views may have changed since they left the programme. While only recent graduates of the PBL programme were considered for this study, this period may act as a barrier to accurate recollections of their time on the course. Of course, replications of this study should be performed to assess the reliability of its findings, and to add to the available data regarding student experience and engagement with this form of pedagogy.

A further limitation may be that because all of the participants are volunteers the views of those that chose not to participate are overlooked and perhaps they had insights that might differ from those that engaged with the study.

5.12 Conclusions

This chapter offered an overview and rationale for the qualitative influenced research methodology that this study used to gather and analyse data gathered regarding the student experience, engagement and power relations with a specific form of pedagogy. Details regarding sample selection/participant solicitation were discussed, as well as a brief history of the validated survey instrument, which has been modified with permission of the lead author for use in this study. Details regarding the interviews and the interview protocol were then presented, followed by a brief discussion of data analysis, ethics including rigor and trustworthiness. The form of qualitative research adopted was discussed in addition to the specific method of in-depth interviews utilised as offering the most insight into student experiences within a PBL educational programme. The
researcher believes that this research design and methodology is appropriate in exploring the subjective, complex and multi-dimensional nature of power relations and identity. The following chapter will describe the data that arose from the participant interviews.

Research Findings

6.1 Introduction

In building from the previous Methodology Chapter, where a description of how the data was gathered through semi-structured interviews and an exploration of the researcher’s epistemology and ontology took place, this next chapter describes the development of the data analysis section within this study and is broken down into key steps. The first step provides a brief overview of the key findings to emerge from this chapter and these will be explained in detail as the chapter progresses. Next, a rationale and the categorisation of the main themes to emerge within the interviews after they were reviewed to assist in the coding and analysis process. The next step outlines the application of the theoretical lens used to interpret the data. Firstly, this included a framework developed by Gore (1995) within the area of power and secondly a model developed by Tajfel and Turner (1986) in the area of SIT (Social Identity Theory).
6.2 Key Findings

This chapter will highlight that the students for the most part found this particular programme run through a PBL ethos to be largely enjoyable, stimulating and a beneficial experience and that they valued the access to real-life problems and industry contacts. It is important for the reader to note that these findings are based on one specific programme and are not necessarily generalizable to the wider PBL pedagogy. In addition, many appeared to use the PBL label as a means of differentiating and advancing themselves from their contemporaries though statements of positionality. These brief findings are as follows;

1. It became clear that power and authority in this classroom is created and wielded in different ways and most students are aware of them being applied. This was apparent both for implied and explicit means and appeared to be an unwelcome surprise to many students.

2. In certain cases, power, authority and control are anticipated and indeed needed whereas in other cases it is seen as overbearing and not beneficial.

3. One possible source of student discontent could be attributed to the facilitation process used by the lecturers on this programme as there is no formal training programme in place for those adopting the role of facilitator, with the exception of a shadowing process.

4. Many sources of contradiction emerged within the student responses which helped serve to highlight the complexity of the issue of power within education.

5. Students adopted Individual Mobility techniques to disassociate themselves from the group they were members and pursue individual goals designed to improve their relative position.
6. Many students, particularly mature students sought to engage in *Social Creativity* activities designed to raise their positive distinctiveness in comparison to other groups.

7. Regarding *Social Competition*, distinction was made for students who had been through the PBL experience versus those who had not. In this manner the PBL “stamp” was used as a differentiator and distancing techniques that highlighted gaps between the groups.

### 6.3 Data Analysis

Data collected through the interview protocol provided a rich depiction of how students engaged with a particular form of problem-based learning (PBL) at a third level educational institute in Ireland. Creswell (2007) suggested that researchers search for patterns by “pulling the data apart and putting them back together in more meaningful ways” (p.163). By using this process, the researcher hoped to discover how students perceived a specific problem-based learning encounter and their views of the programme.

### 6.4 Categorisation of Main Themes

The data gathered in this study was interpreted using Braun and Clarke’s (2006) thematic analysis model which allowed for the systematic and robust analysis of the comments made by the graduates that participated. The steps outlined in Figure 7 (Braun and Clarke’s model) are well supported by other researchers. For instance, according to Marshall & Rossman (2006) it is essential that the researcher immersed himself in the data by repetitiously reading over the material as it was prepared for analysis (Phase 1 – Braun and Clarke, 2006). For that reason, each
transcribed interview was read over three times to become familiar with their content and then reflected on the data by stepping back to ponder the big picture and where there was confusion regarding the context or meaning of a statement, the audio version was played to support the transcription. The model suggested by Braun and Clarke (2006) is also in line with McNabb (2002), who suggests developing an overall map or process for facilitating qualitative analysis as a component of data collection.

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<thead>
<tr>
<th>Phase</th>
<th>Description of the process</th>
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<tbody>
<tr>
<td>1</td>
<td>Familiarising yourself with your data</td>
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<td>2</td>
<td>Generating initial codes</td>
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<td>3</td>
<td>Searching for themes</td>
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<td>4</td>
<td>Reviewing themes</td>
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<td>5</td>
<td>Defining and naming themes</td>
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<td>6</td>
<td>Producing the report</td>
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Figure 7 – Braun and Clarke (2006) 6 Step Model of Thematic Analysis (Spreadsheet)

Adapted from De Wet, W., & Koekemoer, E. (2016).

Phase 1 – All interviews were transcribed by an independent person, who was not a member of staff at the Institute and had no connections to the PBL programme in question. The transcripts were read repeatedly until a comprehensive understanding of the primary points made was achieved. See Appendices 6 and 7 for two examples of these sample interview transcripts.

Phase 2 – Coding was carried out by the researcher across all transcribed interviews using one spreadsheet initially in MS Excel. This sheet was titled “Analysis_L0” and represents the level zero or initial attempt to separate the data into codes numbered 1-10. A screenshot of this
“Analysis_L0” file is provided below as Figure 8. There is also a more detailed version of this file provided in Appendix 8.1. This data reduction process involved open coding and interpretation of meaning where the researcher identifying words that best represented emerging topics or themes.

Phase 3 – Here themes were identified as emerging from the data and given titles deemed appropriate to their meaning. Using this approach of creating themes (Sloan and Bowe, 2014), relevant sections of the text were categorized based on subject matter content and placed into these ten distinct sub-groups identified in Phase 2. These groupings or themes ranged from headings such as “PBL superiority”, “Traditional education”, “Lecturer power Imbalance” to “Group membership migration”, all based on the core of the subject matter discussed by the respondent.

Figure 8 – “Analysis_L0” - Initial Theme Separation Attempt
The following (Table 7) is the initial list of themes identified and provides an explanatory note for each theme and provides a sample quote to provide context. In addition, Appendix 7.2 provides detailed examples of the coding of “Lecturer power imbalance”.

### Table 7. Initial List & Explanation of Themes Identified

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<tr>
<th>Ref</th>
<th>Theme Title:</th>
<th>Explanatory Note:</th>
<th>Sample Graduate Comment:</th>
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<tbody>
<tr>
<td>1</td>
<td>PBL superiority</td>
<td>This sub-group used to represent comments supporting the view that PBL was viewed as being superior to other forms of education experienced by the student.</td>
<td>I just felt with PBL it was like my work was to a better standard because it was like the assignments could have gone on for two or three months at a time so we had a lot of opportunities to change things and fix things and kind of be guided in certain areas. (Sophie)</td>
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<td>2</td>
<td>Previous educational experience / Traditional education</td>
<td>This group represents comments that reference the previous educational experience of the graduate. This typically was traditional education at undergraduate level.</td>
<td>I must say I found it, compared to the undergrad a hundred times more interesting and a better way of learning so I will be definitely an advocate for PBL. (Laura)</td>
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<td>3</td>
<td>Masters superior</td>
<td>Represents comments that support a master degree in general as opposed to a PBL Master degree.</td>
<td>It wasn't a scenario of coming in with your school bag, putting it down taking out a notepad and sit in the lecture room listening to your lecturer harping on for...for 2-3 hours and you take your notes. (Frank)</td>
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<td>4</td>
<td>Group membership migration</td>
<td>Represents comments made by graduates where they state they wish to move from one group where they are members to another more desirable group.</td>
<td>I'm hoping this will set me up as being different from the gang that I was in college with, that I'll be viewed differently. (Sarah)</td>
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<td>5</td>
<td>Lecturer power imbalance</td>
<td>Comments made by graduates that highlight the gap in power between the lecturer and the student in the programme.</td>
<td>The lecturer...they were in charge of the class as such and we all knew it. The moment they walked into the room they kind of just took control and gave us direction. At the end of the day it was them that assessed our work and passed out the grades, so we had to keep on their good side if you know what I mean. (Sophie)</td>
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<td>6</td>
<td>Increase student power</td>
<td>Comments supporting the view that students should be granted greater power and authority within the programme.</td>
<td>I suppose I thought I would have more control over my learning experience…the lecturer still runs it. (Michelle)</td>
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<td>7</td>
<td>Role of lecturer</td>
<td>Comments used to describe the role of the lecturer as viewed through the eyes of the student on the programme.</td>
<td>I suppose a lecturer is very much a facilitator, there to facilitate group discussions…to facilitate in the class room. To encourage interaction between different group members I think they’re also kind of a mentor that they guide you along the path…to guide you in the right direction. (Anne)</td>
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<td>Student superior – 1st person</td>
<td>Comments used by the graduate to suggest that they are superior to others either internal or external to the programme, comments that might set them apart from others.</td>
<td>But I think you do need to have a certain amount of oomph to be able to, you know, work in the team environment and to put your opinion forward and to argue it and to be able to contribute. So that you’re not left behind… you know you have to feel that you can keep up with it. That’s good too…you know that pushes you beyond your comfort zone and pushes you to learn more and it is good in that regard… (Karen)</td>
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<td>8</td>
<td>Self-discovery / journey</td>
<td>Comments made by graduates where they refer to their time on the programme in terms of a journey of self-discovery and self-fulfilment.</td>
<td>I think it opens your eyes to what kind of character you are yourself. Sometimes I feel like that all right that you’re going a bit crazy you know. Am I mad and I do know that I can go on….and on….my goodness At times, yeah it definitely opens you up to reviewing yourself as a person. (Karen)</td>
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<td>9</td>
<td>Group dynamic</td>
<td>Describes comments made by graduates where they reference the group dynamic in the programme and how this was perceived.</td>
<td>It was very strange, very, even when you're doing the thesis you were still talking to everybody like…You’d be talking to a lot of them as well because they were in the same boat. I think everyone felt a bit lonely without the group. It’s the support, then again, you know you had people who you were all kind of thinking the one way, bouncing ideas off them, whereas on the thesis, then it was, it was you were on your own. (Mary)</td>
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Phase 4 – Here the themes identified were reviewed and matched against the initial data set to ensure accuracy. During this phase the themes were further refined to ensure no redundant themes were present or indeed that as little cross over from theme to theme was in occurrence. This step helped determine direction for further analysis. In this way these ten sub-groups or themes were then reviewed again to verify that each entry was in the correct section and that its meaning had been correctly understood and categorized in the correct group. See Figure 9 for this next spreadsheet highlighting this refinement of the themes identified thus far. There is also a more detailed version of this file in Appendix 8.3.
During this phase certain sub-groups were combined into larger groups based on overall similarities of content to allow for analysis of key themes existing within the text. For instance, (1) **PBL superiority** was combined with (3) **Masters superior** and (8) **Student superior – 1st person** to form a new group called **Superiority**. Also, (7) **Role of lecturer** and (5) **Lecturer power imbalance** and (6) **Increase student power** subgroups were combined to form **Lecturer power** group and in addition, (10) **Group dynamic** and (4) **Group membership migration** was joined together based on the overall shared meanings that became apparent within the comments made by the respondents to form **Migration / distancing** group. Due to their very distinct subject matter, (2) **Previous educational experience / traditional education** and (9) **Self-discovery / journey** were left as being individual subgroups, and just renamed for simplicity. This process resulted in a 2nd iteration of sub-groups which contained just five headings. See Figure 10 below for this list of refined themes.
Phase 5 – Here, this phase identified deeper meaning around each theme identified. For instance, due to the clear emergence of themes concerning areas such as the power of the lecturer (Lecturer Power) suggesting a potential power imbalance as perceived by the students and a theme supporting student superiority (Superiority) which appeared to be associated with this power imbalance. In addition, a strong theme called (Migration / distancing) emerged which seemed to suggest the use of distancing techniques employed by the students. This resulted in a further degree of analysis which is explained in Phase 6.
Phase 6 – This involved detailing and reporting these two key themes in terms of the application of theoretical lens to the comments made by the graduates during the interviews. Here, the comments were mapped based on the Power and SIT lens detailed in the next section 6.5.1. In this phase, represented by the snapshot in Figures 11 & 12 below and with greater detail provided in Appendix 8.4 and Appendix 8.5, this demonstrates the comments when both these analytical lens’ are applied.

![Figure 11 – Data Mapped using Power Lens (Gore, 1995)](image)

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Figure 11 – Data Mapped using Power Lens (Gore, 1995)
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6.5 Application of Theoretical Lenses to the Data

6.5.1 Techniques of Power

As outlined in the previous section, having conducted this ‘bottom-up’ exploratory form of research and analysis as highlighted above, significant issues emerged highlighting the area of power and its imbalance as perceived by the graduates participating in the study. It was found that the graduates that took part in this study used language to describe a lack of control and autonomy while still feeling highly regulated and steered in their learning despite the rhetoric of PBL that suggested learners within a PBL environment would experience greater levels of student autonomy and control. It was believed that the literature would provide greater insight into understanding this disconnect. Given this emergence, the next stage of the process involved research into the extant literature and the identification and then application of two key theoretical perspectives or lens to begin to make sense of the data from the perspective of the key research questions. As the study was looking at the use of PBL from the perspective of power, the first perspective involved the application of a key theoretical perspective on power and its manifestation in education settings. Similarly, it was found that the graduates appeared to invest significant efforts into positioning statements which presented themselves as being unique and indeed superior to other business masters graduates and again it was deemed important to review the literature to find suitable theory(s) to help explain this. This is where Social Identity Theory (SIT) became highly relevant and a second lens selected from the work completed by Tajfel and Turner (1986) to help frame these comments made by the graduates. These represented deduction plots superimposed on the data. For instance, these comments included the following from Aidan, Frank and Dan;
“This would make me more attractive when it came to looking for a new job, that I’d be seen as being superior to all the others out there that I went to college with” (Aidan)

“I guess I was also trying to differentiate myself from the gang I graduated with, you know...” (Frank)

“I know this probably sounds a bit shallow and all that but these guys make serious money, I wanted to be in that group and this was one way to do it” (Dan)

The emergence of these statements and the application of the SIT lens is explained further in the next section of this chapter. It is worth noting that power and authority can be enacted in many ways, some more direct or explicit and others more indirect or indeed implicit. In searching for suitable theories in this area, there were several possibilities initially. These ranged from Dahl’s (1957) The Concept of Power, Cornelius and Herrenkohl’s (2004) Characteristics of Power and finally, Gore’s (1995) Techniques of Power. Of these, Dahl’s (1957) study was considered to be dated and incomplete, yet important insight into the phenomenon. Cornelius and Herrenkohl’s (2004) model while recent failed to offer as many categories to use in terms of mapping the data emerging from the interviews as they just suggested three in total. Whereas, Gore (1995) offers eight different ways that power may be wielded or demonstrated by individuals which was more appropriate.

Gore’s highly cited theory may be used in understanding the impact and effect of power when exercised through both direct and indirect means and it is worth noting that of the eight techniques described by Gore (1995), five emerged as being highly dominant in terms of the data analysed. These five highly impactful techniques were 1. Surveillance, 2. Regulation, 3. Distribution, 4. Exclusion and 8. Normalisation. Also, two of Gore’s techniques (6. Individualisation and 7.
Totalisation) were found to overlap heavily with the Ingroup V’s Outgroup aspect of Tajfel and Turner’s (1986) *The Social Identity Theory of Intergroup Behavior* and were discussed under these categories.

This framework provided an effective way of dissecting the education experience from the perspective of power. Where Gore’s techniques of power were seen not to have strong relevance they were excluded. Jennifer Gore’s techniques of power (1995), included the following key elements, see Figure 13 below.

1. **Surveillance** – students are closely watched and supervised.
2. **Regulation** – explicit rules are enforced through a system of rewards and punishments.
3. **Distribution** – students are organized through means of separating, ranking and arranging.
4. **Exclusion** – defining difference, setting boundaries or forming parameters.
5. **Classification** – distinguishing individuals or groups from one another.
6. **Individualisation** – Aligning a characteristic to yourself or another person.
7. **Totalisation** – Aligning a characteristic to a collective group where you may or may not be a part of this collectiveness.
8. **Normalisation** – Defining norms by suggesting, demanding, setting, or conforming.

*Figure 13 - Gore’s (1995) Techniques of Power.*
To assist in understanding the nature of the influence from each technique of demonstrating power it was felt necessary to profile each in terms of having a direct (explicit) or indirect (implicit) effect “on the enactment of power” (Donnelly et al., 2014, p. 5). In doing so the techniques of power were separated into the following two categories, these being direct (explicit) and indirect (implicit) means of wielding power based on the techniques suggested by Gore (1995) and adapted from Donnelly et al., (2014), see below Figure 14.

Donnelly et al., (2014) suggested that this represented a “unifying model” and the authors suggested that surveillance, regulation and distribution be considered direct means due to their highly “visible” presence within the classroom while normalisation and partisanship were more understated to the extent that the lecturer may not even be aware that they are influencing the students (p. 5-6). In updating this framework, Exclusion was added to the direct list of techniques due to the overt nature it implies such as “techniques that will define difference, defining boundaries, setting zones” in the classroom (Gore, 1995. p. 173). These activities tend to be less subtle in nature and highly visible to students.

<table>
<thead>
<tr>
<th>Direct / Explicit Techniques</th>
<th>Indirect / Implicit Techniques</th>
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<tr>
<td>Surveillance</td>
<td>Normalisation</td>
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<td>Regulation</td>
<td>Partisanship</td>
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<td>Exclusion (not included in Donnelly, 2014)</td>
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**Figure 14 - Direct and indirect techniques of demonstrating power**

Source: Adapted from Donnelly et al., (2014)
6.5.2 Rationale for Engaging in PBL Programme – Social and Professional Positioning

The bottom-up analysis of the data, where the themes are refined from 10 to 5, then 2, as described above, also unearthed aspects related to identity as graduates spoke about being part of a unique group of students that have emerged through a specific PBL based programme and went to significant lengths to distance themselves from other graduates. It became apparent in the analysis of the graduates’ responses that their participation on the programme could be seen as part of an identity project, where they had selected what they considered a novel master programme run through a PBL ethos to differentiate themselves from their peers. This type of social positioning led the researcher to consider applying an identity theory that drew on the social dimensions of identity. Because of this, the presentation of the findings, specifically related to these aspects of identity and positionality, were subsequently framed by Social Identity Theory (SIT). First introduced by Tajfel and Turner in the late 1970s and mid-1980s, SIT raised the notion of social identity as a method of framing and explaining behaviour both between and within groups. This behaviour undertaken by an individual may be an attempt to distance him/herself from or indeed join a particular group. Tajfel and Turner (1986) suggested methods that may be applied to achieve positive distinctiveness between groups and the individual’s choice of behaviour, which method they choose to select or apply, is based on the perceived intergroup relationship. At its most basic, SIT argues that identity is both personal and social. The social aspect of identity can be seen as a way of associating or distancing the self from different groups - therefore who one is, is as much who they are not. This social or group aspect to identity can explain social phenomena related to how one associates with a group and how one can move to disassociate from a group. Social mobility, distancing from one’s original social class grouping, is an example of Individual Mobility. This usually implies attempts, on an individual basis, to achieve upward social mobility,
i.e., to pass from a lower to a higher-status group. Such individual mobility is also present in personal and professional groups. There are times however when one may be unable to leave their original group, for example, because one’s skin colour or disability status. In such situations, individuals can engage in what is known as **Social Creativity**. This is when group members seek positive distinctiveness for their in-group (the group they are currently a member or identifies with) by redefining or altering the elements of the comparative situation. The ‘black is beautiful’ movement is perhaps the best example of this form of social creativity. Finally, the third manifestation of SIT that this study aims to explore, **Social Competition**, describes how group members may seek positive distinctiveness through direct competition with the out-group (the social group a person does not wish to be a member of or disassociates from). As the initial analysis of the data appeared to highlight some of these aspects at play in the graduates talk, these lenses were systematically applied to the data.

### 6.6 Techniques of Power

Regarding Gore’s (1995) techniques of power, the use of this lens allowed the analysis and categorization of the comments made by the respondents and facilitated the grouping of text according to the various headings. This lens formed the basis of the framework of the presentation of the findings and the first to be examined was Surveillance.

#### 6.6.1 Surveillance

Gore (1995) refers to this means of exercising power as supervising students closely and creating the environment where students expect and/or anticipate being monitored by the lecturing staff on
the programme. This highly direct (explicit) (Donnelly et al., 2014) filter featured heavily within the data gathered from the interviews and was a consistent theme even when the respondent was answering a question that appeared at the outset to be unrelated to the topic of surveillance. It became clear that surveillance carried out by lecturers was a very powerful means of retaining and demonstrating control over the students based on the sheer quantity of incidents of occurrence within the research. For instance, while it is clear that students expect a certain degree of lecturer overview, comments such as the following where lecturers are even referred to as playing “God” at times and students feeling like they were in a “goldfish bowl” are somewhat alarming and reflect the high degree of response and agreement around this theme;

“*When the lecturers weren't in the room - you could relax, you could say what you wanted and even switch off sometimes*” (Sarah)

“*They do play God every so often though and that can be a bit annoying, like they are watching you all the time, especially in the first year*” (Dan)

“*You know, they were always there keeping an eye on us and it was always positive to be fair. I found with the lecturers when it came to group projects, the guidance that we got at the start when we were learning and we were first starting out with problem-based learning*” (Sophie)

“*They were always watching what you were doing*” (Laura)

“*They are watching us all the time anyway*” (Karen)

There are clear overlaps here with Foucault’s (1977) view that observation is a form of power and this becomes more and more apparent as the interviews progress.
“We hear all the time that the lecturers monitor each person’s work during the project” (Karen)

“You actually have to think if the lecturer is coming around to the groups you can’t sit there and say nothing you have to have some kind of an answer for them” (Sarah)

“Kind of like you were in a goldfish bowl, that you had to be really careful what you said or did when the lecturers were in the room” (Sarah)

The following comment from Aidan is very interesting as it touches on two distinct aspects. Firstly, the fear that if a student does not speak or be seen to speak by the lecturer that this will somehow impact their grade for that section of the project. Secondly, when the lecturer is not observing the group this can be more beneficial to the team effort as students can relax and reflect on what they are trying to say rather than simply speaking for the sake of being seen to speak.

“People are kind of they’re…they're noticing that the boss is behind…so you gotta, you know…the quiet ones will get graded out so I must speak there would be a bit of that I think at the group meetings. Without the lecturer standing over your shoulder or observing can be somewhat more fruitful because I won’t say people are relaxed and let their guard down. They think about what they are going to say and then they contribute” (Aidan)

It is worth noting that not all graduates had an issue with the level of surveillance employed on the programme. For instance, the following comments from Anne and Sarah both reflect the view that this level of surveillance had a purpose and provide a benefit to the students in that the lecturers could observe those students perceived to be trying in addition to those that were not.

“I think lecturers were very observant and very aware of the level of work the people were putting in. That’s the one thing I liked about the whole approach, was that your lecturers knew who was on top of their work, who was falling behind, who was struggling with a
certain subject area maybe. “So, I do feel when it came to it that my grades definitely reflected my work, yeah I do think they were fair and I think they reflect the level of effort I have put in” (Anne)

“They were kind of watching the groups and the people in the groups to make sure they were contributing so it kind of really felt that we were under surveillance a lot of the time. I suppose they had to really, as how else would they know what’s going on and keep an eye on things?” (Sarah)

In the comments from Anne (above) the issue of grading starts to enter the conversation where students are becoming mindful of how the lecturers view them and how this view might have an impact over their grades. Sinead and Laura in the following quotes reinforce this point very succinctly.

“You're a little bit wary of what you are saying because you're not sure how much the lecturer is one listening but two maybe taking notes and you know maybe with that observation is that going to potentially impact your marks for the assignment or for how are you doing for the rest of the year. But you do very quickly get used to the lecturer being there observing in and in all honesty you kind of forget their there once you get comfortable with you know when you get into an assignment and you’re comfortable with what you've been tasked to do then you just typically get on with it” (Sinead)

“They seemed to know everything we were doing and looking at, we also wanted to make sure they saw the work we were putting together, do you know? After all, they were issuing the marks, like” (Laura)

As this section has highlighted, Surveillance emerged as a highly significant means of demonstrating power directly or explicitly by the lecturer over the students in the programme. It was perceived as being excessive by most students (not all) and while learners expect and welcome
a certain degree of monitoring as part of a third level college programme the descriptions of the 
observation process that came to light through the interview stage of this study was perceived as 
being excessive.

Having explored this aspect, the following section examines the use of Regulation as a technique 
of wielding power in the classroom.

6.6.2 Regulation

The concept of regulation also featured significantly within the interviews, where respondents 
described in detail how they believed power was demonstrated using regulatory practices and 
techniques in a direct (explicit) manner. Interestingly, this technique of creating power also 
overlapped with Cornelius & Herrenkohl’s (2004) Ownership of Ideas method in many aspects. 
Regarding Gore’s (1995) Regulation, both Anne and Frank describe how they believed that the 
lecturer would control the room and that this was a surprise as Anne in particular, had not 
anticipated this on a master programme.

“The lecturer is still controlling the whole experience and the lecturer is still very much in 
control of the room and the students. It was a bit of a surprise to be totally honest. And we 
all felt the same way, you know” (Anne)

“There was never an instance where we were given the freedom, the choice ourselves to 
go into groups” (Frank)

The following comments Frank, Karen and Michelle suggest that students understand that the 
lecturers have managed to centralise the power in terms of assessments and specifically grade 
allocation and there appears to be a certain acceptance of this by the students.
“The one issue there is that the lecturers control the grades so you have to just play the game...you know” (Frank)

“The playing field is never level. It could well be all in our heads you know. But it is the feeling that the lecturers call the shots and possess the power over us, that’s the real thing” (Karen)

“Definitely far more with the students with companies and I suppose that it is actually facilitation of the lecturers in that they’re not dictating the pace and that we don’t feel like we’re doing it for the grades. That we’re not working for the lecturer that is actually that they don’t hold the power. That we hold the power I suppose to be honest with you, now like you want to do this and do it right and learn from it and we need the lecturer in order to do that. But we want them to do it in a way that facilitates us and let us grow our minds as opposed to them dictating our minds” (Michelle)

The following comment appeared to be created due to the student feeling that she had to give attention to a point made by a lecturer, even if this contradicted the views of the student group. In addition, the notion of grades within assessments being affected is specifically mentioned raising the issue of fear in the mind of the student that any dissent could negatively affect grades.

“You really had to take on board whatever they would say to you, even if that was different from what someone in your group mentioned. Remember, its’ them that control the grades and they’re kind of monitoring what’s happening in each of the classes so they know what’s going all, all the time. At least, that was my view, but I think others felt that way too” (Sarah)
A further example from Anne includes;

“I would make that part of the project that they actually have to go to find a client that needs assistance and maybe make that an idea for a project to take it away, to reduce a little bit of the control that lecturers have in terms of the assignments and how the assignments are delivered” (Anne).

The following comment, again from Anne highlights that contrary to what she had understood PBL to be about in terms of a more balanced power relationship between the lecturer and the student it was still very much a lecturer controlled and dominated environment. Interestingly, Anne comments that when the lecturer leaves the room the students possibly revert to non-value add behaviour. This is contrary to what Aidan mentioned under Regulation where he suggests that this non-observed activity is more useful to the student and indeed the project.

“I thought it was very much the lecturer and the students on the same level playing field but it's still a case of you know...the lecturer still runs a controlled environment, still has control of the room, when the lecturer comes in it still happens that students kind of sit up a little bit...maybe work a bit harder. Then they leave the room and someone could be on the Internet doing with the assignment but could be on Facebook or texting their friend” (Anne)

The following comments from Sophie, Laura and Karen suggest an acceptance of the power relationship where the lecturer is in control of the classroom and that students may be reluctant to challenge this status quo and were concerned about remaining in the lecturer’s good graces.

“Whereas with the lecturer it was different, they were in charge of the class as such and we all knew it. The moment they walked into the room they kind of just took control and
gave us direction. At the end of the day it was them that assessed our work and passed out the grades, so we had to keep on their good side if you know what I mean” (Sophie)

“I always knew that ultimately the lecturer was the one who controlled the marks we would receive. But, otherwise sometimes you would be trying to egg them on to give you more information. I’d say it could be difficult for them to hold back maybe, at times, but, yeah” (Laura)

“We always attempted our very best to go down that line for our own sakes because we knew it was only being said for that purpose and there was never any question. And we always remembered that they allocated the marks. I think that's what I mean by the young students today. My generation of people of students, we don’t really, I feel anyway, our class we didn't really and even my undergrad class, we just take what we're told and work with it, we don't really, really want to be questioning, we felt like it wouldn’t have been said in the first place unless there is a reason for it. Unless it had merit” (Laura)

“Well…it's just that we all know that if we want to get the high grades we should kind of tow the line a little and give them what they want” (Karen)

“A bit like we were back at school and the teacher is the boss and there's no real getting around that. Now I wouldn't say that we felt this all the time, just sometimes” (Karen)

The next comment from Frank outlines the sense of deep frustration students feel when attempting to solve a problem but feel the need to revert to the lecturer to ensure they are progressing along the correct path. It is clear that he appreciates the need to learn but it is also clear that he anticipated something different from PBL but found that he was constantly “going back to the lecturer” to check direction. This could be interpreted as a fear of failure, or as Carlson (2010, p. 409) describes as “a form of learned helplessness”. In any case Regulation as a means of creating power becomes apparent;
“We always got to a point where we were afraid to go any further and we’ll always put forward our ideas and thoughts to our lecturer and where we were and where we needed to go. He would then assist us, but there might be times where we might come out and you might find out that we’ve actually gone in another direction from our discussion with him. So whether that’s a good thing or a bad thing I don’t know in that we were trying to find our own way but felt that we could only go so far ’cos we still need the assistance of our lecturers so although it is problem based learning it’s seems like we always at some stage ended up going back to our lecturer to see if it’s ok and he either gave us the yes or no and lead us to either the route that we were going or might just tell us to verve left and go up another way” (Frank)

“Like if I just think that it's ok now if I keep the lecturer happy, but at the end of it I know if x is happy the mark tends to be better but I think you to find the balance of this is the direction that I am going in and this is me taking it here” (Dan)

“We were all of the view that the lecturer knew best” (Mary)

The following comment from Sophie outlines the difficulty that some students encountered on the programme. While she appreciates she enrolled on the programme to learn and develop, she also has views and opinions. These views and opinions may differ from the direction or advice being given by the lecturer and “they’re the ones giving the mark at the end of the day”. So, even if the student possesses views to the contrary, the direction being suggested by the lecturer is followed due to the perceived reward of higher grades.

“I do feel that the lecturers are there to go guide us and teach us, do you know, so if I got an opinion like that, it’s like that scenario for me in an individual assignment I felt I really needed to change this because someone is telling me that’s not the right way and they're the ones giving me the mark at the end of the day. So, I found, listen, you have to listen to this because I don’t think I would have been told it was wrong if it wasn’t wrong, well do
you know what I mean? So, the problem kind of lay with me as such, in what I had produced” (Sophie)

“I kind of came around and just said listen you need to get over this now and start again or you know go in this direction or that particular direction I've been advised to go in because I always did. Because like I said, I knew I wouldn't have been told unless I was wrong, and the role of the lecturer was to help us and to guide us so I felt if I didn't listen I was not going to do well, I am not the expert at the end of the day I was training to be one” (Sophie)

In the next comment she states that the lecturers enjoy the reputation that they are “never wrong”, giving rise to a highly significant sense of power possessed by the lecturer.

“I would take it that they were never wrong and I suppose, yeah like there, we always had more than one lecturer so we always had more than one person guiding us” (Sophie)

In the next comment from Sarah, the Regulation technique even discriminates between ideas that originated from another student in her own group to that originating from the lecturer. It became apparent that students clearly allocated greater credence to direction offered by the lecturer.

“You really had to take on board whatever they would say to you, even if that was different from what someone in your group mentioned” (Sarah)

Sarah follows this up in the next comment where she links this lecturer led direction to the potential reward of higher grades.

“We were really conscious that this was the, kind of, direction the lecturers wanted us to follow so we would always just go that way, do you know what I mean? Remember, we really wanted to get good grades and not just the bare pass” (Sarah)
The following views outlined by Michelle demonstrate the thought process she goes through and finally agrees that the word “power” correctly describes a label to describe the role of the lecturer. She refers to the feeling she had when she says, “we couldn’t really think outside the box” in solving a client problem because they wanted to ensure the “lecturer was happy”.

“But at the same time isn't the...what's the word... isn't the person who is not...power...the person that comes in to tell us what to do when we could, we will be working on something and we've been writing up something but we'd be very aware to the fact that a lecturer was coming so we had to make sure we...our writing styles was right or our critical thinking was evident. That we're actually following something...we couldn't really think outside the box...a small bit...for the client because we wanted to make sure that the lecturer was happy. So at the end of the day “power” is the right word and they have the power and you know, we were working for them as opposed to working for the company” (Michelle)

In terms of Gore’s (1995) Regulation, the following comment from Stuart suggests that he believes all students had accepted the fact that the lecturers possessed the power and in his own words “called the shots” in the programme. This acceptance of a largely unbalanced power dynamic was in evidence throughout the research.

“We were all aware that the lecturers called the shots, if you know what I mean” (Stuart)

The following comment from Michelle demonstrates that students experience frustration in the sense that they are unhappy that they appear to be making significant efforts to satisfy the lecturers while not necessarily orientating their efforts towards the project client.
“But I suppose at the end of the day when your handing in something and you go into the boardroom for your final presentation to the company you're standing there...you're wondering who's the presentation for? Is it for the lecturer, is it for the company and have I ticked everyone’s box or do I just need to tick the lecturers box because at the end of the day that's my grade and in one or two occasions we definitely went in just for the lecturer. Because we really felt that if we didn't put what he wants on the page...she wanted on the page, we weren't going to get the grade and that was more important to us. Obviously, that's our careers at the end of the day you know” (Michelle)

Furthermore, Michelle goes on to say that prior to starting the course she believed that with a PBL oriented programme, students would enjoy more power or control. The use of labels here is very interesting as for instance she refers to her expectation that students might be the “dictators” as opposed to the lecturers. She also draws reference to her expectations prior to commencing the programme.

“I would have thought that the PBL experience would allow us as students to dictate...to be the dictators as opposed to the lecturers. If you can say that...but I would say that you know if I would have said that PBL was so flexible that it would have allowed the situation to happen that we could have control it ourselves and manage the situation. I would have said that's what PBL was” (Michelle)

It must be said that the lack of a formal training programme for lecturers joining this programme as facilitators might contribute to this perception among the students. Michelle continues to outline a sense of confusion in the mind of the student with what she perceives to be an unclear power dynamic between the lecturer and the students where the lecturer is trying to impose control and authority over the students and issue his/her sense of direction.

“But it's just that it ends up then, you know, it all just get a little bit confused and I suppose the power struggle between the group dynamic and lecturer and the lecturer trying to control the group’s dynamic ends up as well causing a little bit of...some people end up
just sitting back just because there's no point in trying to get into the middle of all of that as well, you know” (Michelle)

In the following comments from Anne, she also refers to the lecturer controlling the educational environment in addition to the students. She suggests that this was not what she had expected prior to commencing the programme.

“The lecturer is still controlling the whole experience and the lecturer is still very much in control of the room and the students. It was a bit of a surprise to be totally honest. And we all felt the same way, you know” (Anne)

“But, still we were still like very much in a student / teacher type environment where the lecturer was still the boss. Did we have more autonomy than undergrads? Probably yeah, but still we were very much the students” (Anne)

In Anne’s final comment, she outlines very succinctly the aspects of control that the lecturers demonstrate which include operational issues such as attendance, project deadlines, assessments, presentations and client satisfaction with project outcomes.

“Well it’s not in any way a dictator controls it’s just when I say control, what I mean is that they are still in charge ensuring groups are working, ensuring the people are attending, ensuring that deadlines are being met and ensuring the clients are happy with the end result of the project. I think it’s kind of more a facilitating control, a little bit less so than other side but it would have seen my undergrad but the lecturer is still there to say you have deadlines due in 2 weeks-time. You have a presentation at 10 o'clock next Monday morning…look you're falling behind…you're not coming in enough. So there is still very much control there but I think it has to be some bit of control otherwise people can go off in all directions” (Anne)
Regulation was by far the strongest technique used by lecturers to create and retain power as experienced by the students and mentioned during the interviews. It constituted a highly direct (explicit) means used by lecturers in the classroom to demonstrate power and authority. It must also be noted that this method was utilised strongly within the methods of assessments used to measure student progress throughout the programme. Even when conducting the interviews, the emotion that this technique elicited was highly significant. It became clear that most students expected and indeed anticipated a certain degree of regulation but not to the extent that they experienced. The mapping of the data using this technique represented a significant form of direct (explicit) power used by the lecturer in the classroom and identified important issues that will be explored further within the discussion chapter. These include teasing out the extent to which these types of educational programmes should be regulated and controlled by the lecturer. Should the student be allowed a greater input into not only operational decisions but also into more strategic, long term decisions also? In addition, issues start to arise where students are highly cognisant of the fact that the lecturers control the grades so are more likely to take on board lecturer suggestions when they equate this to achieving high marks in assignments. A further issue here is where students feel powerless to continue with a project because they feel they can only progress with lecturer approval of the direction they are undertaking. Having completed the examination of the Regulation technique, the following section examines how Distribution (Gore, 1995) was used as a means of creating and withholding power within the PBL programme.
6.6.3 Distribution

Distribution, meaning how students are organized through means of separating, ranking and arranging was viewed as being a significant direct (explicit) technique of wielding power and closely aligned to the assessment structure associated with the programme. As the quotes below highlight, students believed that the lecturer should be the individual to decide which students get allocated to each group, but this appears to be for different reasons. One student (Frank) suggests it for the purposes of student experience and development, in that students would simply pick individuals for group work that they were comfortable with and would not operate outside of their comfort zones. He suggests that it would improve the learning experience if lecturers allocated group membership.

“I think it was more beneficial for us that it was picked externally or randomly. Because if we decided to select our own groups we would have only selected the people that we were comfortable working with and I always would feel myself that it's always beneficial to play outside of your comfort zone sometimes. Because that...of course helps the learning process and you gain more experience by doing that. So, the selection of groups I think it was there for the lecturer to decide rather than us picking them” (Frank)

“It would be just a bit simpler and easier for a lecturer to decide themselves. But then at the same time then you're looking at the lecturer's preferable company that maybe they would choose maybe for themselves like you know. So you wonder, you wonder then are the class having the desired interest that they would like to have” (Frank)

Claire, Sophie, Stuart and Mary all appear to have simply accepted the authority of the lecturer and believe that certain tasks such as group allocation and the grading of student’s work within the
assessment process are tasks naturally associated with the role of the lecturer, “Sure, isn’t that the lecturers’ job anyway”.

“Ohmm I don’t know how effective that would be. I think some people would have the opinion that they are fantastic at everything and give themselves a 100% and I don’t know if it would be an accurate grade if you were to self-assess yourself. Sure, isn’t that the lecturers’ job anyway. I think it's better to have a firm gap between the lecturer and the students, at least if they are giving the grades it's done professionally and impartially” (Claire)

“I’d kind of feel that only the lecturers are qualified to do this” (Sophie)

“Self-grading....I wouldn’t....I mean, ok...both my gut and my head there say no because I can’t just.....No that’s what you pay lecturers to do” (Stuart)

“No, I really wouldn’t want to peer review. No, no, no not my cup of tea. The lecturers are the experts there...” (Mary)

Furthermore, Mary believes that this task should be carried out by the lecturer for equality reasons in that if students possessed the ability to self-select it may result in the stronger students always being selected first and the weaker ones left out.

“Pick our own groups? Um I think maybe it could happen that you were with one person or a job with one person or two people a lot of the time, so maybe in that case it might be an idea that you might get one problem where you’d say, “right organise your own
“Then I think a bit differently I would be thinking about the poor people that nobody wants to work with” (Mary)

Michelle in her follow up comment (below) takes this further where she outlines a potentially significant improvement to the programme would be to reduce the role played by the lecturer and have the project work assessed by the client company instead. The “power imbalance” issue is clearly raised. She outlines the similarity between this model and the current co-op work placement programme run by many colleges and universities.

“If I could get rid of that power imbalance, the lecturer having the power, I think it would just it would really make the course so much more... just would be fantastic. To actually feel like you're working for the company. Like you know there are so many programs where you go on co-op for a company I wasn't expecting a co-op placement but I was expecting to actually feel like I worked for a company. I felt like I worked for a lecturer” (Michelle)

The following comments from Claire conflict with the views of Michelle in that she is comforted by the fact that lecturers allocate the grades within the assessment process and she welcomes the “gap” that she feels exists between lecturers and students on the programme. She refers to grade allocation being carried out “professionally and impartially”.

“I think some people would have the opinion that they are fantastic at everything and give themselves a 100% and I don’t know if it would be an accurate grade if you were to self-assess yourself. Sure, isn't that the lecturers’ job anyway. I think it's better to have a firm gap between the lecturer and the students, at least if they are giving the grades it's done professionally and impartially” (Claire)
When Claire was asked would she see any benefit with the introduction of peer assessment, even on a partial scale within the PBL programme, the response is clear;

“Oh yeah sure that would be a fantastic idea. Yeah but is that fair? You might get one team getting really good grades all the time and another one struggling and never learning anything, would it be fair. It would be great but would it be fair? I think it would be best to let the lecturer do that, then if it goes wrong we can always blame them”...(laughs) (Claire)

Interestingly, the comment above from Claire suggests that fairness seems to be more important that the learning potential of the experience, this could be created by a competitive nature in the programme. In addition, the respondents spoke about a certain degree of dissatisfaction about not being able to select their own groups and about how they did not have much input into the selection of firms for assignments but then in the same vein appeared to be quite satisfied that this was the case as it was the role of the lecturer to do so. In addition, they appeared to prefer the lecturer to carry out these organisational tasks as then there was an individual perceived as being neutral making these decisions and students could avoid any negative feedback or reactions from fellow students if they were the ones making these decisions. Having explored this direct aspect of demonstrating power, the following section examines the use of Exclusion (Gore, 1995).
6.6.4 Exclusion

According to Gore (1995), *Exclusion* refers to defining differences, setting boundaries or indeed the formation of parameters. Within the research conducted it became clear that the students believed this direct (explicit) technique was being utilised within the programme as a means of demonstrating and wielding power over the students. In most cases this was completed through the restriction of knowledge or guidance that was distributed to students as the lecturers saw fit and while some students appear to recognise that this could relate to the lecturer purposely wishing the student to attempt to find the most desirable route themselves, it still resulted in significant frustration. Indeed, this distribution appeared to create a sense of unease among students who viewed it as a method for maintaining a distance or gap between themselves and the lecturers. While this sense of frustration was experienced by the students across many of Gore’s (1995) techniques of power, it describes how communication between lecturer and student can have an impact on power relations between people as this section will explain.

It quickly emerged that some students, Michelle for instance, would have preferred carrying out the project under greater supervision and guidance from the target company rather than from the lecturer. Interestingly, the notion of qualification to conduct grading came to light where it emerged that students believed that only the lecturer was “qualified” to award grades. This student perception was seen to enhance lecturer power and diminish the role of the student that only the lecturers were qualified to award grades helps to enhance lecturer power.

In the following comment from Dan, he outlines his sense of frustration as he is progressing through a problem and he feels this struggle is potentially unnecessary as the lecturer “knows the answer” and could offer greater direction. It becomes clear that he feels the lecturer is holding on
to the knowledge and that this may make them feel important or powerful, rather than the lecturer withholding information for the purpose of promoting independent student learning.

“Frustrating in the sense that, right, you know, we know the lecturer knows the answer and we may be looking for a little bit more guidance right” (Dan)

Interestingly, in his next comment Dan states that while as a student he does not possess the same level of knowledge as the lecturers, he has learned the process of solving the problems (through the PBL process) and that this has helped him and his fellow students in terms of development. This appears to be at odds with his earlier comment where he outlines his frustration with the lack of lecturer led direction and guidance.

“Not that we know the answers like the lecturers, we don't but we understand the mechanisms of getting to where you need to go and which I believe helped us as students” (Dan)

The following comment from Mary outlines the view that (like Dan’s first quote), she believes that the lecturers created an environment or process where the students were dependent on lecturer knowledge and guidance and that the lecturers “liked it that way”. This issue might stem from the lack of formal facilitator training within the programme individual lecturers performing the role differently to others. In this sense the students on the programme perceived that they were excluded from access to lecturer knowledge. One cannot help reading a certain degree of frustration and even bitterness in her comments where she outlines her experience of the PBL programme.

“They made it so we were kind of dependent on them…and to be honest I think they liked it that way. We always got to a point where we were afraid to go any further and we’ll always put forward our ideas and thoughts to our lecturer and where we were and where we needed to go. He would then assist us, but there might be times where we might come
out and you might find out that we've actually gone in another direction from our discussion with him. So, whether that's a good thing or a bad thing I don't know in that we were trying to find our way but felt we could only go so far 'cos we still need the assistance of our lecturers so although it is problem based learning it seems like we always at some stage ended up going back to our lecturer to see if it’s ok and he either gave us the yes or no and lead us” (Mary)

Further, Laura, describes how her cohort did not feel that they had the authority to question comments made by the lecturer that the suggestion would not have been made in the first place unless it had merit.

“We always attempted our very best to go down that line for our own sakes because we knew it was only being said for that purpose and there was never any question. And we always remembered that they allocated the marks. I think that’s what I mean by the young students today. My generation of people of students, we don't really, I feel anyway, our class we didn't really and even my undergrad class, we just take what we're told and work with it, we don't really…really want to be questioning, we felt like it wouldn’t have been said in the first place unless there is a reason for it. Unless it had merit”. (Laura)

In addition, Stuart suggests that it was critical to engage and interact with the lecturer in order to recover feedback on project work, because “we were all aware that the lecturers called the shots”.

“I think it is really important to you to interact with your lecturer. To find out like…ok…if I lost a mark there, what did I lose it for? We were all aware that the lecturers called the shots, if you know what I mean. You’d want to know what was it on your report, you know…what can I do better the next time?” (Stuart)

In contrast, in the following statement Karen outlines the view that she feels her group did not experience pressure to follow suggestions made by the lecturer if the group felt otherwise.
However, she then suggests that the views of the lecturer may be followed on a subconscious level “particularly if grades are important to you”, somewhat undermining her first point.

“I don’t think we feel the onus or the pressure to take on board the suggestions of the tutor over and above what you feel is right yourself for the project that’s not there... which is good. At least I don’t think we ever did but then again we may be doing it subconsciously, particularly if grades are important to you” (Karen)

In the following comment, Aidan responds to a question asking would he support self-assessment by students and he puts forward the view that this role belongs to the lecturer and that “they’re the experts, aren’t they?”.

“I just kind of feel that the lecturer is best placed to do this assessment and it shouldn’t be down to me, that's their role after all. They're the experts, aren't they?” (Aidan)

Further comments by Michelle and Claire all follow a similar vein;

“If we were put into different groups which again was controlled by the lecturer which I probably would have preferred to be a little bit more controlled or influenced by the students in the group as opposed to the lecturer deciding who I was with all the time. The lecturers had stronger personalities, or maybe that's just how they seemed as they called all the shots. We kind of had to go with the stronger personality because it was very difficult not to. But at the end they did introduce the little bit more of an individual role, an element into the assignment and once that was there was that was introduced it did help the little bit of a kind of trying to think for ourselves a smaller which definitely helped” (Michelle)
“But it's just that it ends up then, you know, it all just get a little bit confused and I suppose the power struggle between the group dynamic and lecturer and the lecturer trying to control the group’s dynamic ends up as well causing a little bit of...some people end up just sitting back just because there's no point in trying to get into the middle of all of that as well, you know” (Michelle)

“Hhmm I don't know how effective that would be. I think some people would have the opinion that they are fantastic at everything and give themselves a 100% and I don't know if it would be an accurate grade if you were to self-assess yourself. Sure, isn't that the lecturers’ job anyway. I think it's better to have a firm gap between the lecturer and the students, at least if they are giving the grades it's done professionally and impartially” (Claire)

The framing of the student comments using Gore’s (1995) *Exclusion* highlighted aspects such as excessive exclusion and boundary setting adopted by the lecturers, the entire nature and structure of the assessment process adopted within this programme in addition to the investigation into joint assessment or indeed even the introduction of client company contribution to student assessment. In addition to these, further issues emerged such as student’s perception that they did not possess the authority to question lecturers regarding the orientation they were being given during project activities. This could be linked to the role of the facilitator carried out by the lecturers on this particular programme. These issues will be further reviewed during the discussion chapter. Having explored the *Exclusion* technique, the following section examines the use of the *Normalisation* method.
6.6.5 Normalisation

Jennifer Gore (1995, p.171) defines normalisation as 'invoking, requiring, setting or conforming to a standard - defining the normal'. Also, Foucault (1977) describes how norms differentiate individuals from one another by reference to a minimal threshold, an average to be respected, or as an optimum towards which one must move. In terms of the nature of Normalisation it is regarded as being an indirect (implicit) means of wielding power (Donnelly et al., 2014). With this in mind the following views and comments emerged from the interviews as being key. The following three comments from Frank, Anne and Sophie describe how lecturers on the programme would describe the norm or standard that students should aim for or aspire towards. It becomes clear that this message was internalised by students and taken seriously as a means of determining success in the programme.

“We would be told all the time that this wasn’t a 1st standard or that this was only a bare 2:2 grade or whatever. It got to you after a while you know. The lecturers would say stuff like, “well if you want a first then this is the type of paper you need to write”. It would get you down sometimes” (Frank)

“The lecturers would show us previous papers and projects that would be scored really high, versus those that didn’t. It was always a case of which group did you really want to be in? What was funny was that we would always ask what does a 1st grade paper look like and then the lecturer would either show us one from a previous year or describe one” (Anne)

“Sometimes we would be told what constituted a pass and the message was very clear, you need to do more than this. The lecturers would also reiterate with us that this is presented to an outside company or client so this really had to be good” (Sophie)
The following comment from Stuart refers to not only the lecturers setting the standard for performance but that this was also being driven by the other students also. In this way the *Normalisation* aspect of Gore’s (1995) dimensions was being used by both the lecturers and the students on the programme as an implicit method of demonstrating power.

“It was a case of us hearing about how important it was to get a good grade at the end of the masters. I wouldn’t mind but a lot of it came from other students, not just the lecturers. That’s what made it a bit mad really, we were putting this pressure on ourselves” (Stuart)

The above students all outline a sense of power being demonstrated implicitly within the programme both by lecturers but also by students towards other students which helped sustain that sense of superiority and power imbalance as perceived by the student. Jennifer Gore’s (1995) techniques of power were highly relevant and provided a useful lens in examining the primary research in this thesis in that it helped uncover and focus on many aspects and examples of how power techniques were being created and used by both lecturers and students, but primarily by lecturers.
6.7 Techniques of Power - Summary of Key Issues

With regards to the application of Gore’s (1995) Techniques of Power as a deductive lens, it helped frame the responses from the students and assisted in illustrating the effects of power wielded by the lecturer in the classroom. In understanding how power can be wielded when looking at the data through this lens, the most salient techniques to emerge within the research were *Surveillance, Regulation, Distribution, Exclusion and Normalisation*. The others such as *Classification, Individualisation and Totalisation* did not contribute to a significant extent within the research conducted and were therefore excluded. When Gore’s (1995) lens was applied to the data from the interviews there did not appear to be significant corroboration between those 3 techniques and the statements made by the students. It is important to note that there are of course multiple models of PBL so given the very specific situations where they are applied it is likely that no two models are likely to be the same. Thus, this study is mindful of the fact that generalizing findings from any one study must be treated cautiously. The reader must remember that this study is based on one particular instance of a programme run using a PBL ethos in a third level institution in Ireland. With this in mind, the key issues to emerge from this study were based around the following;

6.7.1 Extent of Power Imbalance

The application and manifestation of power and authority is exercised in different ways and it appears that the students are aware of some of them at the very least. This was especially the case with more overt means of wielding power where comments such as “like you were in a goldfish bowl”, lecturers “were always watching what you were doing” and lecturers who appeared to “play God” suggest that a wide range of students were quite aware of the power differential that existed
on the programme between students and staff. The level of direct control wielded by lecturers appeared to surprise students who believed that a course run using a PBL ethos would operate in a much more liberal manner. Respondents referred to situations where they perceived they “were never given the freedom, the choice ourselves to go into groups” or “the moment they walked into the room they kind of just took control and gave us direction”. One student even referred to the learning environment as “like we were back at school and the teacher is the boss”, another “we were still like very much in a student / teacher type environment where the lecturer was still the boss”. It was interesting to note that students believed they had very little chance of success when trying to persuade a lecturer down a different direction, they were perceived as being a “mere student”. Given the role adopted by the lecturers in this programme is described as being predominately facilitator based (see Section 2.2) this perception among the participating students suggests that lecturers may be going beyond the role as outlined and may be attempting to dominate the student groups. As highlighted previously it must be reiterated that the lack of a formal training process for lecturers joining this programme as facilitators must be considered a weakness as relying on informal observation sessions where “trainee” facilitators observe experienced colleagues could be viewed as being too haphazard and inconsistent. Perhaps the situation may occur where facilitators do not fully understand their role and are not fully engaging with students in a manner required of a PBL programme.
6.7.2 Balanced Level of Autonomy

In some instances, authority and control is expected and indeed assumed to be needed whereas in other cases it is seen as overbearing and not necessary. For instance, while the degree of observation carried out by lecturers was excessive in the minds of most students, this view was not necessarily shared by all. Respondents indicated that they welcomed this oversight as it helped provide reassurance that the lecturers were abreast of student performance in the course. While most respondents appeared to realise that there would be a certain degree of direction and orientation provided by the lecturers, after all this was a college programme, they were clearly taken back by the extent to which this was carried out. Indeed, the level of observation carried out by staff would appear to be in excess of that suggested in the description of the facilitator role in Section 2.2. Therefore, from the perspective of the students, the level of autonomy provided to students was less than satisfactory.

6.7.3 Rife with Contradictions

There are numerous contradictions in their responses highlighting the complexity of the issue. For instance, students confronted a dilemma where they appeared to have their own ideas about how to progress a project but elect instead to follow the lecturer’s suggestions. This highlights the ongoing tension and power dynamic between the students and staff and the contradictory nature of some of the students’ expressed views where, at times, lecturer authority is expected, whereas on other occasions it is questioned. Classroom power appears to be a constantly changing dynamic where power/authority is given and taken on a continual basis.
In short, Gore’s (1995) Techniques of Power proved a very useful, insightful and relevant framework in examining the primary research in this thesis. They helped uncover and frame many interesting aspects and examples of how power techniques were being created by the lecturers on this specific programme. By using and combining this framework it helped capture aspects that may have gone undiscovered. As these sections have highlighted, there are many different dimensions of power at play within the programme as perceived by the students and that their presence and effect may call into question some of the claims made in relation to how Problem-based Learning based programmes may be implemented that are prominent in the literature. This issue will be explored further in the discussions chapter.
6.8 Social and Professional Positioning – Exploring the Data Through Social Identity Theory

Having explored the various techniques of power evident from the students’ perspective, this section now turns to the students’ social and professional positioning which emerged as a very prominent issue in the findings. Students were seen to use language as a means of positioning themselves in groups through association while also de-associating themselves from other groups. This emergence of strong positionality activity from students on the programme led to the consideration of issues surrounding identity and belongingness. This sense of belongingness emerged very clearly as students began to make statements that would associate them with specific groups while also dis-associate themselves from other, less desirable groups. With this in mind, a means of framing student comments and positioning statements was required, and a model developed by Tajfel and Turner’s (1986) in the social identity theory of intergroup behaviour was selected as outlined earlier. In particular, the students comments were categorised under three areas, 1) how they perceived being part of the PBL programme was seen as a form of professional elevation (individual mobility), 2) the positive language they used when speaking about the PBL programme (social creativity), and 3) the positive comparisons they made between their PBL programme and other business masters programmes and peers that had not completed the PBL programme (social competition).
6.9 Individual Mobility – PBL Study as Professional Elevation

In certain situations where the group borders are viewed as being non-permanent, individuals may engage in individual mobility strategies where they "disassociate from the group and pursue individual goals designed to improve their personal lot rather than that of their in-group" (Haslam, 2001, p. 38). There were a significant number of students who appeared to use individual mobility techniques in one way or another emerging from the interview stage of this thesis. In the below examples, the students speak about their wish to create a recognisable difference between the student cohort they graduated with and from undergraduate level and many appear to view PBL as a means of achieving this distancing. This is an effort to engage in individual mobility behaviour as described by Tajfel and Turner (1986) and in the first instance, the PBL programme could be perceived as a differentiator from their contemporaries that may assist them in their career progression. Interestingly, some students mention PBL as a means of achieving this distance rather than just a typical master’s degree, it appears that PBL is perceived in a more positive light than a non-PBL masters. In this way these students viewed PBL as a better vehicle through which to achieve distance. It appeared that the status of the in-group was being elevated as a result of their participation and association with the PBL programme. With this in mind the following comments arose from the interviews as deriving from this activity;

“I guess I was also trying to differentiate myself from the gang I graduated with, you know. I knew that they didn’t have PBL under their belts. Remember, the world is competitive and I saw this as a way of elevating my position within the marketplace” (Frank).

“I think you have to keep up with others too, you can't get left behind too much, you have to upskill yourself or whatever to be seen in the same light as them. I couldn’t handle being left behind. I knew I had to do something to separate myself from them. Tired of being seen
of just having a basic degree as well, like everyone else. It’s good to move onwards and upwards if you know what I mean like” (Sophie)

“This would make me more attractive when it came to looking for a new job, that I’d be seen as being superior to all the others out there that I went to college with” (Aidan)

“I felt that if I could learn these PBL skills and get through this masters that I’d be good enough in the company’s eyes to advance beyond where I am at the moment. I wouldn’t just be in the team that I’ve been in for so long already” (Laura)

In the following comment from Frank he outlines the vast difference in competence between him as a student on the programme where he encountered feelings of confusion and a certain degree of fear or lack of confidence in making decisions and how he believes now after graduation that he has the same vision as the lecturers. In this way he is associating himself now with who he used to perceive a more powerful group.

“We always got to a point where we were afraid to go any further and we’ll always put forward our ideas and thoughts to our lecturer and where we were and where we needed to go. Looking back I can now see what the lecturers saw, I’ve come so far” (Frank)

Similarly, Mary believes that she can participate now with colleagues in the workplace on real-life projects, that she now feels she has the credentials to join this group.

“It was great to be able to talk to colleagues about these projects that we were doing for these real-life companies you know. That I could do this too, just like them” (Mary)
In the following comment from Dan, he assigns a high earning potential to those that have graduated from the PBL programme and gives his reason for enrolling in the programme as having a desire to join this group.

“I know this probably sounds a bit shallow and all that but these guys make serious money, I wanted to be in that group and this was one way to do it” (Dan)

In the last quote in this section, Sophie outlines how she perceives herself to be taken more seriously now that she has completed the programme, that she can now “walk the talk”.

“People see you differently with a masters, especially when you can walk the talk you know. You're seen as being more skilled and informed then you were before” (Sophie)

It is interesting to note that industry experience is not seen as a key differentiator by Dan in the following comment as he refers to having a PBL marketing masters as being key for his career development. This contrasts with Frank and Mary on the other hand. Frank feels that he would like to be perceived as someone with more commercial experience. He states quite clearly that he is relying on the programme to help him achieve this goal. Mary simply believes that if she has completed a PBL programme this will assist her to be seen in a more positive light in the workplace. In this manner the programme is being used as a means of achieving individual mobility, to move from one group to another, with several different goals in mind.

“Most of my contemporaries would have lots of industry experience but they mightn't have a masters, particularly a PBL marketing masters” (Dan)
“I really wanted to be perceived as someone with lots of experience, more than maybe my age group would have” (Frank)

“I knew that if I did a PBL master course then that would help me progress at work, us with PBL masters courses under our belts would be seen in a higher light. I felt like I was better than the rest by doing this course” (Mary)

In addition, the following comments demonstrate an effort to distance from a group where the individual is currently a member. In the first case, Karen speaks about the view that it will be the access to “real life companies” that will make the difference to her when it comes to rounds of promotion, she references the experience that she will have accumulated from working with these organizations. In the second example, Mary feels that by being left behind by her contemporaries she is currently in a group that she does not want to be with and she is utilizing the programme to elevate her position away from this less desirable group.

“It wasn't so much the masters itself, it was the exposure to real life companies and the experience you might get from them that attracted me. This experience would help me at promotion time, to get ahead of those at my level at work” (Karen)

“Also, I think I was being left behind a bit by my college friends, they were getting lots of experience and I just wanted to keep up with them if that makes any sense” (Mary)

Other respondents’ comment that they wanted to be perceived as being superior to others who were completing master programmes that were positioned as being less challenging than PBL programmes and that this was a key motivator. Frank refers to the PBL programme as being such a differentiator that it resembles serving in the United States Marine Corps, that this was more challenging than the rest, that it pushed you further and that this was where the benefits would
accrue. In an even more extreme vein, Michelle uses disparaging comments to describe traditional taught master programmes such as “chalk and talk” and “death by PowerPoint”.

“You need to be tested to your max because that is when you get the full benefit from it. Like a stint in the Marine Corps, most other courses don’t push you like that. The benefits are huge” (Frank)

“I know from friends that did a taught masters that it was the chalk and talk of sitting down and death by PowerPoint or whatever and you know, I learned more because I had to. I wanted to be seen as better than the rest” (Michelle)

A common theme emerging from the comments above indicate a strong desire to be seen in an enhanced light to others, to be positioned as being more superior to others, to be better than one’s contemporaries and to reap the rewards of this elevated position away from the current in-group. This theme was very strong within the research with the majority of respondents indicating that they were completing the programme for this reason.
6.10 Social Creativity – Maturity of Students used to Boost the In-Group

In situations where the borders within groups may be viewed as being robust and where the relationship between groups are quite secure, individuals may participate in social creativity actions. In this manner, group members that are of lower perceived status could attempt to elevate their positive uniqueness in comparison to another group without necessarily altering their resources. This may be undertaken through comparing the in-group to the out-group on some new attribute, altering values assigned to the attributes of the group, and/or selecting a different out-group by which to compare (Tajfel & Turner, 1979). For example, Tajfel and Turner refer to the well-known “black is beautiful” movement and the African American embrace of African culture as an example of the creativity of a low status group to counter secure or fixed relations between groups. The border line between this technique (Social creativity) and the final method suggested by Tajfel and Turner (1986) Social competition became blurred in some instances where students would employ both techniques almost at the same time. Within this section efforts were made to isolate and separate those that fell into social creativity more so than social competition but both techniques were used by the same students at times as a means of distancing. This occurrence highlighted the efforts made by students in both creating points of distinction between them and others and also attempts to elevate their relevant position.

There were many examples of social creativity highlighted within the research including instances where two types of distancing were employed. The first was the employment of distancing from others inside the PBL master cohort and the second being distancing from others outside the cohort.
6.10.1 Inside the cohort

For instance, in the following comments both Sophie and Michelle are seeking to distance themselves through direct competition with the *out-group* which happens to be younger students that have entered the master programme directly from their undergraduate course and who happen to enjoy limited industry and/or life experience. In this manner they are distancing from others *inside the cohort*. Sophie claims that they are a “different” type of student to the one that she was when she was completing her undergraduate degree and uses examples such as students with poor attendance records questioning why they underperformed and not taking personal ownership of their failings.

“It’s suited for the mature student but that’s because I was a mature student doing it. I think it would be good to try on younger students, but it just depends on the cohort that you get because they’re a different generation. They are not the same students that I was in college with when I was doing my undergrad. Everything is everyone else’s fault and I shouldn’t have gotten this and you might have someone who had 10% attendance and they wonder why they failed and they don’t take ownership” (Sophie)

In Michelle and Anne’s case, they identify experience, both life and work experience as being the key differentiator or distancing agent between them and the *out-group* selected from inside the cohort. Michelle refers to these student’s inability to perform adequately within group-based tasks and “ended up squabbling”, while Anne states that those without relevant work experience “might struggle”.
“I thought maybe just young people not managing groups and who had never really been put into groups enough. Maybe you’re not understanding, like, at the end of the day when you go into industry everyone has to work in a group and you have to learn how to manage different people than what you might like and how to motivate them. And I suppose younger people weren’t able to do that and couldn’t control that and ended up just squabbling...you now...but then you know it’s probably just maybe their age and also experience of working in groups” (Michelle)

“You know, I’m a mature student so I didn’t...I suppose I don’t get involved in that kind of element of it as much. I could take the pettiness out of the fights. But like there is a lot of petty fighting and squabbling going on. The mature students just didn’t get sucked into that, you could say we’re probably above it” (Michelle)

“Because I had a fair amount of work experience myself and I felt having worked and having got some industry experience that you can bring it to the table with you and to other class members. The ones without this experience might struggle. I suppose I would class myself as a little bit more prepared than others because a lot of people nowadays are taking on a masters straight from the degree level and they haven’t got work experience at all. I think this level of experience set us apart from the recent graduates on the course, we had more to offer” (Anne)

In a similar fashion, Frank identifies what he believes to be the out-group as those students within the cohort that are just “weaker” or “quieter” and less “outspoken” than him as the ones that he is keen to create distance with. The in-group in comparison, are referred to using descriptors as “strong” and “outspoken” and “more comfortable”.
“It’s a process that I feel suits the stronger personalities whereas there are scenarios where I won’t say weaker but the quieter personalities are maybe left behind and that's not their fault. That’s just the way they are. It's more designed for the outspoken, more comfortable people and that the weaker, quieter people might be left behind. PBL just mightn’t suit those people, they’d struggle” (Frank)

In this final example, Sinead distances herself from some other students in her cohort claiming that she did not require the same degree of support and guidance from the lecturing staff as they may have needed. It is interesting to note that while many students expressed the view that they were superior and did not require a high degree of “hand holding” that other students might need, they still appeared to have issues with lecturers wielding power and control.

“Some might have preferred more hand holding than others, I was ok though, I didn’t need that” (Sinead)

6.10.2 Outside the cohort

In the next two examples, once again from Sophie, she differentiates herself and other master students from undergraduate student behaviour such as possessing the expectation that the lecturer knows all the answers and highlights undergraduate students in a less than positive light. In this way she is differentiating from outside the cohort using Tajfel and Turner’s (1986) social creativity technique.
“From when I was doing my undergrad you kind of do look to your lecturer to kind of have all the answers and that might not be the case. You’d see undergrads doing that all the time. As masters students we were above that crack” (Sophie)

“I was like 100% more engaged. Whereas in my undergrad, I was just looking at lecture notes that are given to you by a lecturer, like all the undergrads do. Even those that came direct from their undergrad into the masters, they had no real world experience, not like us” (Sophie)

The following quotes from both Claire and Anne refer to students who claim because they underwent a PBL type programme over a traditional, more mainstream course that this instils a deeper level of learning and engagement. Again, these relate to outside the cohort distancing. Specifically, Claire refers to students that would appear to be perfectly happy to listen to the lecturer in class and then just “going home”. Anne refers to her greater “level of control” over personal deadlines and being “almost on the same level as the lecturer” compared to younger (outside the cohort) students.

“I am sure there are people who prefer sitting there listening to their lecturer and going home. I’m sure there are people who aren’t, you know they are not comfortable in groups. That wouldn’t be me now...I’m better than that I think. Working in groups having to engage with groups, who prefer solitary study and but I would imagine most people it would suit. But there’s always an element that a person prefers a group setting and the classroom, like I say though, that wouldn’t be me. I’m better than that” (Claire)

“Sometimes that can be the difficulty when you have come from working and you are an adult and you’ve been out of the education system and you haven’t been told to be at a class at a certain time or have this done at a certain time. It can be difficult to adapt to that and I think I noticed that the students who came straight from degree level were probably a bit
more comfortable with that than myself who would be used to working on my own deadline, working at my own pace and always still getting deadlines met. So I suppose that level of control can be quite difficult and also when you're a bit more mature and you're kind of nearly on the same level as the lecturer as compared to students at 18/19 years of age coming out of college and that control kind of...I suppose I wasn't really expecting that. I'm sure it needs to be there” (Anne)

This section is highly important in that it emphasized instances where social creativity activities were employed by students to enable them to elevate their respective positions without altering their resources within the group. It became clear that students used two distancing approaches, inside the cohort and outside the cohort behaviour as a means of elevating their in-group in comparison to the relevant out-group.
6.11 Social Competition – PBL “stamp” used to differentiate

This technique differs from the previous two in that with social competition individuals within the in-group could look for a positive difference against some particular out-group using some means of competition such as employing the practice of favoritism towards the in-group.

In-group favoritism refers to the practice of favoring an individual belonging to one’s own group in comparison to another group. Social competition as a means of differentiation between groups tends to happen when boundary lines are viewed as being quite firm and when relations between groups are relatively unstable (Tajfel & Turner, 1986). Again, in some circumstances the lines between Social creativity and Social competition became blurred due to students successfully using the two techniques simultaneously. Examples of Social competition as a technique applied by students emerged as the comment from Anne (below) demonstrates her view when asked would she recommend a PBL programme to a friend. She responds that not all her friends would be suitable for PBL, just a select few that might be on the same level as her fellow students in her cohort. She refers to her group as being “exceptional” students and uses this as a benchmark for comparison. She employs keywords such as “committed, very dedicated and quite disciplined” to describe her in-group and suggests that only her friends that measure up to this standard would be suitable.

“...is a certain kind of person that is suited to PBL and there will be people that will do a taught Masters and will succeed far more in a taught masters. People that are...are suited to sit in there for 5 hours learning from the book and there’s people that don’t learn from that and there’s people that work better from the PBL approach. So yeah, I would recommend it but not to all friends. I think friends who would be
as good as the guys in the group right now. Those that maybe had work experience, friends who I know would be a very committed, very dedicated and quite disciplined at what they do and I suppose determined as well, it might suit them for sure. I look at my group that I was with last year and they were just exceptional I think” (Anne)

Other examples of social competition include the following from Frank, who states that the programme resulted in a bond being established with his fellow students, even those that he may not have held in much affection prior to starting the course. This bond became so strong that he uses the term “us versus them” to describe his feelings towards those without a PBL background. In this way he demonstrates Tajfel and Turner’s (1986) social competition technique by favoring those within the in-group versus those outside, even when he states he may have disliked some in-group members previously.

“I knew some of the guys from before we actually started and I have to say, I didn’t particularly like them. But then after a while we were all in this together, we were better than those without a PBL grounding. It sounds a bit nuts but it was like it was us versus them” (Frank)

In the following comment from Stuart he describes how he will only refer new business opportunities to fellow PBL graduates first before looking at those without PBL. He claims that he can “trust” those with a PBL background to do a satisfactory job and as any referrals he makes could affect his personal credibility he has to be sure he can stand over the individual he suggests.
“The way it worked for me was that I’d only give the name of some guy from the course, whenever I was asked to name someone good, whenever a bit business came up and I was asked to name someone. I’d always feel more comfortable with someone from the course, I knew they’d be good. Even if I didn’t know them personally. Once they’d been through our PBL course I knew my name was safe” (Stuart)

In the final example of social competition highlighted within this research, Dan comments how once a student was a “PBL student” he would consider them to be different from the others, different from those graduating with a mainstream qualification and that this was what set them apart in his perspective.

“Once I knew that someone had that PBL stamp on their head, they were different to the rest. I felt they were one of us and we were better than the rest because of the shared experience we had been through and the training we had received. I felt that each of us were better than the rest” (Dan)

Social competition as suggested by Tajfel and Turner (1986) as a means of creating advantage for the individual and the in-group was a technique used significantly by the respondents interviewed as part of this thesis.
6.12 Social Identity Theory (SIT) – Summary

Regarding *Social Identity Theory* and the methods described by Tajfel and Turner (1986), it becomes very apparent that all three techniques emerged significantly within the research with examples highlighted in the previous section. Individual Mobility referred to the efforts made by students to disassociate themselves from the group they found themselves in and pursue individual goals designed to improve their personal position. It quickly emerged that this technique was used by students regularly to help create a recognisable difference between them and the cohort at undergraduate level they graduated with for instance. In addition, students expressed the view that they wished to be superior to those that had graduated from a non-PBL master programme also. It became clear that for many students this was a primary reason for undertaking the programme, in a similar fashion to Gore’s *Individualisation* technique. Most of the students that participated in the programme appeared to be using this approach in one manner or another, comments from respondents such as attempting to “set yourself apart from the crowd, to be different from everyone else” and “tired of being seen of just having a basic degree as well” supported this aspiration among the students. These comments support the view that the students wanted to be perceived in a more enhanced light to others in the commercial marketplace and that they considered the PBL programme as providing the means to achieve this goal. Given that there are many master programmes being offered in the same region as the PBL programme being discussed, there are very few master programmes being administered through PBL this further supports this goal.

In terms of *Social Creativity*, many students sought to engage in activities designed to raise their positive distinctiveness in comparison to another group without altering their resources. This was attempted by mature students, who regularly pointed out differences between them and the students who had recently graduated from their primary degree and were possibly lacking similar
industry or life experience. These mature students sought to create these distinctions between themselves and this other group by highlighting how these recent graduates could not cope properly with group activities and did not necessarily possess the same interpersonal skills to them. Comments such as “everything is everyone else’s fault” emerged to describe the younger, more recently graduated students in dealing with the demands of a PBL masters and the extensive group work that is associated with the programme. In addition, reference was made to those students in the cohort who were less outspoken, less confident and less familiar with working in groups. It was felt that these types of students might struggle in the programme but not those that were confident, outspoken and able to cooperate effectively in the group environment.

Regarding Social Competition, distinction was made for students who had been through the PBL experience versus those who had not. In this manner it was the PBL “stamp” that became a differentiator in a similar way to Social Creativity where mature students viewed themselves in a much more positive light to recent graduates. In addition, distancing techniques were used on a regular basis to create gaps between those on the programme and those outside the programme on other master courses that were not run using a PBL methodology. This distinction is useful in that it provides a useful avenue for educational institutions when positioning themselves and their programmes in the future in terms of marketing communications.

The understanding and application of social identity theory in general and the three techniques suggested by Tajfel and Turner (1986) were very useful in terms of understanding the individual and indeed group behaviour on a third level educational programme and provide useful insights into how the students may view both themselves and others within their group. In addition, it provides an understanding of the approach’s students may take to elevate their own respective positions relevant to those around them and how they may choose to justify this change.
Discussion

7.1 Introduction

As has been highlighted in the Research Findings Chapter, this study unearthed a perceived power imbalance between the lecturer and the student that was demonstrated using direct / explicit and indirect / implicit techniques by the lecturer. The explicit techniques were seen to include Surveillance, Regulation, Distribution and Exclusion while implicit techniques consisted of Normalisation and Partisanship. These techniques ranged from the nature and structure of the assessments used by lecturers to the general atmosphere of the classroom sessions as perceived by the students. The Research Findings Chapter highlighted that Gore’s (1995) framework was most useful as a means of mapping how power can be wielded by the lecturer over the student. It discovered points of contradiction, for instance, where students objected to the degree of authority, power and control held over them and yet indicated no real desire to engage in peer or self-assessment within the programme, yet they actively sought out lecturer guidance and control. Also, where some students objected to oversight in the form of surveillance carried out by lecturers, others welcomed it as a means of lecturers acting as facilitators keeping abreast of individual student behaviour and performance. It identified that students were surprised at the perceived little amount of control they possessed, contrary to their expectations prior to commencing this particular master programme run using a PBL form of pedagogy. It highlighted a permission type system where students perceived that they could not pursue directions without seeking permission from the lecturer first which appeared to rankle many and cause significant frustration. It identified that students were frustrated due to perceived excessive boundary setting by lecturers and
exclusion techniques employed particularly between the institution and the client company. Possibly, this frustration stems from the lecturers not performing the role of facilitator during the classroom sessions in a consistent manner. Finally, within the area of power, students believed that they did not possess the authority to question lecturers in any meaningful way during classroom sessions and particularly over the course of the assignments that they were expected to complete.

In terms of the exploration and application of social identity theory (SIT) and the methods described by Tajfel and Turner (1986), this study identified that all three techniques emerged significantly as being implemented by the students. It quickly emerged that individual mobility was used by students regularly to help create a recognizable difference between them and their undergraduate colleagues. It emerged that there were instances of overlap between the power techniques (such as Gore’s *Individualisation*) and SIT, for instance students expressed the view that they enrolled on the PBL programme to differentiate themselves from non-PBL master courses. The research unearthed a pattern of *Social Creativity*, where learners, particularly mature students, attempted to engage in activities designed to raise their positive distinctiveness in comparison to another, less desirable group. In addition, the research discovered that distinction through the *Social Competition* technique was made for students who had been through the PBL experience versus those who had not by using a PBL “stamp” that became a differentiator. Finally, the study unearthed that distancing techniques were used repeatedly to create gaps between those on the programme and those outside the programme on other master courses that were not run using a PBL methodology.

There are several potential explanations for these findings and this chapter aims to discuss these possible reasons as well as unpick any contradictions that may exist within the research. Following this, the chapter aims to understand the rationale that may have motivated these behaviours and
explore the implications arising from these findings. Therefore, this chapter aims to firstly revisit some of the rhetoric regarding PBL from the literature and then apply these to the key findings outlined in the previous chapter before then examining possible reasons for their emergence and then suggest key implications from a theoretical, practical and then finally, a research perspective.

### 7.1.1 PBL - more engaging & enjoyable than traditional education

There is also a sizeable body of research which suggests that PBL has provided a more engaging and enjoyable learning experience while also flattening the hierarchy between the student and the lecturer (Belland et al., 2006; Lightner, Bober & Willi, 2007). Problem-based learning (PBL) is considered a method of teaching that many observers regard as not only resulting in greater student engagement directly in the process of learning, but also strives to increase self-directed learning amongst participative students (Colliver, 2000; Brush & Saye, 2008; Czabanowska et al., 2012).

Furthermore, in support of the statements made by the students, PBL has been described as a model of education which involves “learning in ways that used problem scenarios to encourage students to engage themselves in the learning process” (Savin-Baden and Howell Major, 2010, p. 3). In addition, many practitioners of PBL report that students appear more engaged in a PBL format than in a traditional education environment (Tretten & Zachariou, 1995; Savery and Duffy, 1995; Torp and Sage, 2002; Ravitz & Mergendoller, 2005; Brush & Saye, 2008; Cosgrove, Phillips & Quilligan (2010); Verma, Dickerson & McKinney, 2011). These studies are strongly supported by the students as the following comments outline;

> “That is definitely a better way of learning and it also prepares you more for the workplace I think, than the traditional way I was taught for my undergrad” (Laura)
“I've learned a lot more this year than I would have done if I have been lectured that is for certain” (Karen)

“I think it was very exciting. I'm glad I did it and I'm glad I experienced it. I know from friends that did a taught Masters that do you know it was the chalk and talk of sitting down and the PowerPoint and death by PowerPoint whatever…” (Michelle)

“I felt that I would be more engaged in the learning experience in the problem-based learning. I felt I might gain more from it rather than just sitting in a lecture theatre for whatever 20 hours a week. That I was responsible for my learning and that I would have more control over my learning experience so I decided to go in there just from the point of view that it was something that I had not done before” (Anne)

So, it becomes clear that the research conducted in this study largely confirms and supports the existing literature in this area that students perceived this programme to be more enjoyable, engaging and motivational than other, more traditional forms of education that may be available.

7.1.2 PBL improves content knowledge & facilitates authenticity

Studies have revealed that PBL has many positive effects on learner knowledge in terms of content. In terms of definition, content knowledge is described as “the intersection of knowledge of the subject with knowledge of teaching and learning” (Niess, 2005, p. 510) as well as “that domain of teachers’ knowledge that combines subject matter knowledge and knowledge of pedagogy” (Lowery, 2002, p. 69). Learners that are educated within classrooms with a problem-based learning ethos exit their courses armed with a more practical knowledge of the world in terms of content
that can be utilized in a wide range of activities or tasks (Boaler, 1997). In this manner the assessments introduced within this programme perform both aspects of the “double duty” requirements of assessments within education as suggested by Boud (2000). The assessments within this programme focus on the immediate task at hand yet also help prepare students in terms of lifelong learning by focusing on the process of learning in addition to the substantive domain. It could be argued that it was the application of the PBL masters in an authentic situation where students are working on real-life problems facing real organizations that lends it more credibility than non-PBL programmes. Students such as Sophie, Mary and Karen support this view with the following comments:

“I just felt like everything was much more clearer” (Sophie)

“It was great to be able to talk to colleagues about these projects that we were doing for these real-life companies you know. That I could do this too, just like them” (Mary)

“I've learned a lot more this year than I would have done if I have been lectured that is for certain” (Karen)

“...it was the exposure to real life companies and the experience you might get from them that attracted me. This experience would help me at promotion time, to get ahead of those at my level at work” (Karen)
Like the view that PBL is more enjoyable and engaging than traditional education (Point A), it also becomes clear that the findings from this research supports the existing literature in this area that students believe PBL improves content knowledge and does indeed facilitate authenticity.

7.1.3 PBL challenges power dynamics & allows greater autonomy

Research in education has suggested that PBL encourages a more informal, less autocratic and dictatorial environment where learning takes place (Kaufman et al., 1989). Furthermore, Kaufman et al., states that the lecturer or facilitator role in PBL is defined as “to guide, probe and support the students’ initiatives, not to lecture, direct or provide solutions”, (1989, p. 286). This is important to note as it suggests a very different method of teaching and classroom culture to the historical and well-established norms of traditional education where the lecturer adopts a position of authority using both explicit and implicit means of maintaining power. Indeed, much of the existing literature on PBL suggests that this form of pedagogy challenges the existing power dynamics in lecturer-student relationships by providing more autonomy to the learner (Czabanowska et al., 2012). Based on the findings that emerged within this research it appears that very little has changed within this particular educational institution and that this programme does not adequately challenge the existing power dynamic between the lecturer and the student nor does it allow the student greater degrees of autonomy that one might expect from a PBL programme. This is surprising given the relatively positive reports associated with these novel forms of education within the extant literature. Perhaps reasons for this could be the role of the facilitator carried out by the lecturers and the lack of formal training as not being fully in line with other PBL
programmes or the nature of the assessment structure that is in place. The following comments from Anne and Frank help to reflect this finding:

“The lecturer is still controlling the whole experience and the lecturer is still very much in control of the room and the students. It was a bit of a surprise to be totally honest. And we all felt the same way, you know” (Anne)

“There was never an instance where we were given the freedom, the choice ourselves to go into groups” (Frank)

7.2 Exploring the causes of student unease

It emerged that students believed the lecturers retained too much control of both the learning process and indeed the learning environment, which proved to represent a serious cause of concern and dissatisfaction. When considering this it is important to note the role of assessments within education which have at their core the requirement to assess student knowledge and skills in a particular area or context and that for the most part it has been the role of the lecturer primarily in designing these assessments. Of course, while not the sole source of power in the classroom, assessments was a tool that appeared to be used widely by lecturers to wield power as far as the students were concerned. In attempting to understand this perception the question must first be asked why? Why are students feeling this way? What are the drivers or contributing factors to this sense of unease? The following helps to explore the nature of these questions.

7.2.1 Unreasonable expectations

7.2.2 Partial adoption of PBL

7.2.3 Can “real” autonomy be given?
7.2.1 Unreasonable expectations?

In attempting to understand the reasons why students on the programme experienced significant feelings of unease, might it be the case that current student expectations are simply unreasonable. It may be the case that they are expecting too much in terms of power and autonomy from a third level programme that simply cannot be provided. To examine this, it may be necessary to take a step back and view the role of the lecturer in its most basic or fundamental form. The role of the lecturer is to guide, teach, enable and facilitate learning regardless of the physical environment or space. What has transpired over years of education and learning is that the role of the lecturer became strongly associated with power, authority and centralized control. This association did not just occur in recent years, it gradually developed over centuries of education where the roles of the teacher and student became highly polarized where a student might be expected to “Just Be Quiet and Listen to Exactly What He's Saying' (Donnelly et al., 2014, p. 1). While this could be viewed as being conjecture, advances in educational methodologies have indeed taken place and various forms of learning have been developed, including PBL, it appears that the perception associated with the role of the lecturer and student have not changed all that much over the years following the cultural tradition argument. The student is still perceived and perceives him/herself as being inferior, much less powerful, uncertain, submissive and far less in control of their educational journey than they would prefer. While it becomes clear that the student still wishes to have a lecturer who can provide guidance, support, direction and arbitration, the student would prefer greater input and control over certain aspects of the educational environment. The following comments from Michelle and Frank support the view that the students do recognize the need for lecturers to retain power but wish that students enjoyed a greater contribution.
“...That we’re not working for the lecturer that is actually that they don’t hold the power. That we hold the power I suppose to be honest with you, now like you want to do this and do it right and learn from it and we need the lecturer in order to do that. But we want them to do it in a way that facilitates us and let us grow our minds as opposed to them dictating our minds” (Michelle)

“I would have thought that the PBL experience would allow us as students to dictate...to be the dictators as opposed to the lecturers. If you can say that...but I would say that you know if I would have said that PBL was so flexible that it would have allowed the situation to happen that we could have control it ourselves and manage the situation. I would have said that’s what PBL was” (Michelle)

“If I could get rid of that power imbalance, the lecturer having the power, I think it would just it would really make the course so much more...just would be fantastic. To actually feel like you’re working for the company. Like you know there are so many programs where you go on co-op for a company I wasn’t expecting a co-op placement but I was expecting to actually feel like I worked for a company. I felt like I worked for a lecturer” (Michelle)

“There was never an instance where we were given the freedom, the choice ourselves to go into groups” (Frank)

These desired changes include greater freedom to follow paths or directions within coursework without continuously being required to check for lecturer approval and altering the grading dynamic to include representation from client organizations rather than just the lecturer deciding grades wholly by him or herself. There is a degree of contradiction here as these students at times
sought this very approval from the lecturer. However, given that the lecturer still controls the physical space, i.e. the classroom, allocates students into groups, selects client companies and enjoys a dominant position in terms of grading it may be naive to expect this power imbalance to be changed in the near-future. Indeed, students report that they still wish the lecturer to carry out these roles. However, in PBL the lecturer does not have to carry out all of these tasks entirely by themselves, a degree of autonomy does exist on the spectrum of PBL operationalization. Perhaps the issue is partially caused by the marketing efforts of the Institute and/or by testimonials of graduates that serve to create a legend or at the very least an expectation that this PBL programme will be fundamentally different from the typical undergraduate college experience and other taught master courses in the marketplace. In addition, it could be the case that those students that participated in this research are not far enough removed from the experience that they are still affected by the experience and the disappointment they felt due to the perceived power and control imbalance. Perhaps if their views were solicited in five to ten years-time they might feel differently about their educational journey given the benefit of hindsight.

Another possibility is that while students may have expected greater power and control as part of this PBL programme, this may not actually have been desirable to them. This may have been a cause of concern in that greater involvement in the programme requires a greater sense of responsibility. Perhaps it is the case that in line with attribution theory this response could be a face-saving technique employed by the student to avoid a sense of participation in the course and thus avoid any responsibility for its perceived shortcomings. In this manner the programme is seen in a less than positive light regarding student participation and power sharing between the student and the lecturer. This in turn gives rise to the notion of an ideological dilemma emerging from the research in that students were seen to voice their significant dissatisfaction with the perceived
power imbalance on the programme and yet were highly complementary of the course and the benefits accruing to them based on their participation and graduation. Of course, these students were specifically asked questions around sources of dissatisfaction and what might be improved within the programme. If they had not been asked, the question arises as to whether they would have even considered these views. However, Aidan comments that;

“This would make me more attractive when it came to looking for a new job, that I’d be seen as being superior to all the others out there that I went to college with”.

Furthermore, Sophie suggests that she gained significantly from a learning of skills arising from the programme

“People see you differently with a masters, especially when you can walk the talk you know. You're seen as being more skilled and informed then you were before” (Sophie)

So, while students identified clear issues with the programme in terms of power imbalance in favour of the lecturer and all the negative impacts that this entailed, they still strongly suggest that they benefitted from participating in the course. So much so that comparisons were drawn between the programme and training in the “Marine Corps” in terms of students being tested to the full and descriptions such as being able to “walk the talk” and “most other courses don’t push you like that, the benefits are huge” help highlight that students appeared to associate positive attributes with the course. Again, this may be a self-defense mechanism activated by the students to help rationalize the decision they made in selecting the PBL master programme in the first place. In line with
cognitive dissonance theory originating from consumer behaviour (Jarcho et al., 2010) where an individual experiences mental unease or discomfort after purchase has taken place when confronted with potentially conflicting information regarding the product or service in question. In this case these students have enrolled in a master programme and may potentially perceive the need to justify and defend the decision they have made. They may possess conflicting feelings about their enrollment decision and are attempting to engage in dissonance reduction activity by suggesting perceived benefits associated with the course they selected.

7.2.2 Partial adoption of PBL

Perhaps it could be that the Institute has adopted PBL on a partial basis where authentic tasks are indeed being implemented by the students working on projects for client companies, but autonomy is not being granted to them in turn by the lecturing staff and the institution. The research conducted in this research found that students wish to enjoy the freedom to follow a path without the perceived requirement to secure permission from the lecturer to pursue this route. The research indicates that this was a strong feeling that students possessed, that they sought freedom of movement in solving the assigned problems and that they believed they would have this freedom in a PBL type environment. It would be inaccurate to say that all students felt this way, but approximately nine out of thirteen who were interviewed did and having enrolled in a PBL master programme believed that this would allow them a greater say in terms of how problems were to be solved. It is also inaccurate to say that these students did not expect or anticipate the lecturer to retain overall control of the learning process. They clearly did expect this, and in most cases wished for someone to be in charge, someone to run the lecture, to have a person in the room who can
perform arbitration within any group conflicts that may occur. All these roles are deemed to be of
importance to the student and they have learned over years of education that these roles are pos-
sessed by the teacher / lecturer and this has been widely accepted. This could even be viewed
almost as a hegemonic assumption of the student’s behalf. What they may require is to feel the
confidence that the direction they select in solving the problem can be made by them primarily
rather than the lecturer, if they should so wish. Perhaps this could be viewed as student’s perception
of autonomy as opposed to actual autonomy in that they feel empowered to make decisions in
certain situations without experiencing the need to check with the lecturer. This research does not
indicate that all students feel this way, some do feel the need to be able to check in with the lecturer
at established milestones and need to have that sense of security. However, the majority feel that
the role of the lecturer, through using explicit and implicit power techniques has disenfranchised
them of this component of the learning experience within PBL.

7.2.3 Can “real” autonomy be given?

Perhaps it is naïve to think that real autonomy can be given, in that it is simply naïve to believe
that there is another, more balanced option as according to Foucault “nothing exists outside
power”. Perhaps the educational institution and indeed the student need to accept that the presence
of power in any relationship is natural and that this presence is not necessarily a bad thing. Can an
educational programme exist that offers a balanced power relationship between the lecturer and
the student? Given that most programmes created by lecturers within third level are done in such
a way to be accountable to institutional requirements as well as to satisfy student learning outcomes
the importance of assessments is perhaps not surprising. Perhaps certain adjustments can be made
to facilitate greater student input into certain aspects of the teaching and assessment process but ultimately is it unreasonable to say that the lecturer must ultimately make the final decisions? It could be that the student wish for greater autonomy and control could just be a type of self-defense mechanism where they feel somewhat frustrated with the lack of power but have no real desire for any deeper involvement within the programme. It should be remembered that no student participating in this programme indicated that they would be willing to engage in peer or self-assessment, believing that this was the role of the lecturer. It could be that they simply feel the need to voice these concerns to give the impression that this is something that they need and that their greater involvement would enhance the programme. In a sense this could be students performing a “ritual of resistance” in the manner suggested by McLaren (1985, p. 85). Alternatively, it could be that the students are demonstrating a degree of external attribution theory where failure is normally caused by external factors that the student has no control over (Sanderson, 2010; Heider, 1958). In this case it is possible that the students might feel the need to criticize the power relationship within the programme due to it being controlled wholly by the lecturers and that it might significantly benefit from their increased level of involvement. If they had been further involved the educational outcomes might have been much greater and the programme more effective and beneficial. It is also possible that these students had expectations that their level of power on the course would be higher due to it simply being labelled as PBL. Perhaps it is a mixture of all three of these contributing factors that is causing students a sense of deep dissatisfaction with the power imbalance they perceive to exist within this programme and this is one aspect emerging from the research that could be examined in further research into the area.
7.3 Complexity due to involvement of external clients

Arising from these issues the study also raises important questions in relation to the role played by external partners or clients that are situated within industry but are involved within the Institute’s PBL process and play a critical role within the programme. This study has highlighted the following which will be discussed in turn;

7.3.1 Clients / partners used

7.3.2 Authentic tasks

7.3.3 Meet client company expectations / needs

7.3.4 But, no role in assessment

7.3.1 Clients / partners used

As the students have suggested, a significant source of dissatisfaction and frustration arose during the research carried out as part of this study around the process of interaction with client companies and the unequal power dynamic that exists between the lecturer and the student. Within the current model the students have essentially no involvement with the client company before they are selected and are not invited to contribute to the selection process for clients over the course of the academic year. They are not involved in the selection of the category of client in terms of industry sector or whether the client is from a manufacturing or service background. This role is retained by the lecturers and students are normally informed of the name and nature of the client approximately one week before the project commences. The client organization is normally present at two
stages during the assignment, at the start and at the very end. At the start where their role is normally to provide an overview of their organization to the students at the start of the assignment and assist in answering any questions the students might have to enable them to fully understand and appreciate the environment the client organization is operating within. Also, client representatives are present at the end of the assignment when the students present the final version of the results formally to lecturers. This low involvement emerged as a source of discontent among students who wanted to play a greater role in identifying and selecting partner clients within the programme. The greater inclusion of these client representatives would of course serve to reduce the power imbalance as perceived by the student within the current programme. Another clear reason for this is of course the potential for greater contact with this extended network to help facilitate commercial opportunities in the future. However, it could be seen that this change would require these client partners to understand their relationship with the student from a power perspective.

7.3.2 Authentic tasks

An aspect that strongly emerged during the research was the requirement for projects to be perceived as real and authentic by the students. The “realness” of the assignments was mentioned repeatedly as being a key differentiator between this PBL master programme and other taught courses and was highly valued. It was deemed of high importance that tasks assigned to the students needed to be grounded in the real world of business and while crafted to be structured in milestone format to assist with scheduling, needed to provide a tangible benefit to a real industry partner. If this sense of realness is lost from the programme it could be that it loses this strong sense of identity that students view as being critical.
7.3.3 Meet client company expectations / needs

It is important to note that while one of the strengths of this programme as perceived by the student is its sense of being placed in the “real world” and not merely a purely academic oriented course, it then had to satisfy industry partner requirements. One of the fundamentals for this perception or reputation is the quality of the client organizations the programme is partnered with during any given year and the quality of the projects the students are assigned. For this pipeline of suitable client’s and quality assignments to continue it is essential that these partners perceive the work submitted by the students as being useful, relevant and tailored to solve the problem at hand. If this quality level is not adhered to the programme and Institute may suffer reputational damage and future links with partners placed into risk. Essentially, client partners must see a benefit to liaising with the Institute for this support to continue, otherwise they may start to question their involvement with a programme that fails to deliver on projects. Of course, an issue here may arise where students are not permitted latitude to learn in a safe environment that allows them to “think outside the box” and develop new ideas without feeling undue pressure to deliver results in line with client company expectations.

7.3.4 No role in assessment

Within the current process student project work is only assessed by the lecturers with little formal involvement from the company representatives. Following the student presentations at the end of the project the client may volunteer their views over each group’s effort, but this is typically done in an informal and non-binding manner. It is the lecturers who formally assess the student outputs and develop the assessment results and deliver these to the students in follow up review meetings.
The concern that the students outlined was around the power dynamic that exists within this grading process, specifically to consider the addition of the client organization in determining the grade allocated to the student and/or group based on the work completed. The students had concerns that while the effort that they delivered in solving the problem was going to directly benefit the client company, it was the lecturers who assessed this performance solely. Michelle summarizes this concern quite succinctly;

“But I suppose at the end of the day when your handing in something and you go into the boardroom for your final presentation to the company you're standing there...you're wondering who's the presentation for? Is it for the lecturer, is it for the company and have I ticked everyone's box or do I just need to tick the lecturers box because at the end of the day that's my grade and in one or two occasions we definitely went in just for the lecturer. Because we really felt that if we didn't put what he wants on the page...she wanted on the page, we weren't going to get the grade and that was more important to us. Obviously, that's our careers at the end of the day you know” (Michelle)

The illustration below (Figure 15) represents the traditional grading process within third level education where the Institute has sole responsibility for assessing student performance and assigning marks. No third party exists and while the relationship and process are clear, the participating students in this study state that significant issues arise due to the power imbalance that exists.
Traditional grading relationship model

![Diagram of Traditional Grading Relationship Model](image)

Figure 15 - Traditional grading relationship model between educational institute and student

Current grading relationship model in the PBL programme

Next, Figure 16 attempts to map the relationship within the current PBL process in the Institute where industry partners (client organizations) are highly involved but enjoy no meaningful role regarding assessment of the performance of the student. It is within this relationship model that this study has examined the power dynamics within the PBL programme where student perception that imbalances exist emerges and constitutes a major source of frustration which is opposed to the suggestion made by Czabanowska et al., (2012) that PBL should in fact challenge the existing power dynamics in lecturer-student relationships by providing more autonomy to the learner.
This potential change relates to the altering or adjustment of the grading process that exists within the PBL master programme and is represented by Figure 17 below. This change involves a reassessment of the boundary setting between an external entity (the industry partner) and the institution to allow the external entity to contribute to the grade being awarded to the student. Instead of this grade being fully decided by the lecturer, a facility where the client organization has input to contribute to this overall grade could be explored and agreed. This change to the
current practice would reduce the effects of Gore’s (1995) Techniques of Power by altering the reporting and assessment dynamic. Potentially, this will serve to adhere to the grading requirements that need to be performed by the lecturers as part of the assessment structure within this programme and also serve to achieve a certain balance of power as perceived by the students.

**Figure 17 - Potential grading relationship model between student, institute and industry partner**

It is clear that any alteration to this relationship could significantly impact the power dynamic within the programme and in so doing may reduce the weighting attributed to the lecturer in favour of the industry partner while not directly raising the weighting associated with the student. This adjustment may be perceived by the student as providing a power dynamic that is more balanced
than was present originally. It is very important to note that this change creates a level of complexity to the student / lecturer relationship that current theories of educational power has not considered to date. The potential implications of this change are significant in that they have ramifications for the authority of the lecturer and the educational institution as well as the industry partner and the student which should be considered.

7.4 Further research on PBL used in this way needs to;

- Consider the complexities and implications of these more complex relationships. For example, how much influence does the client organization enjoy in the process and how does this impact on the existing student / lecturer relationship?

- The role played by assessments in general needs to be further researched and understood to assess the long term implications of the current structure that is in place within this programme. Part of this research should include a holistic understanding of how the current suite of assessments can be enhanced.

- Are lecturers willing to relinquish their dominant positions of control and authority in this process? In implementing this change this will result in the lecturer appreciating that he/she does not fully control the grading process and at the very least will need to consult with an external partner in this regard.
- How might academic staff be encouraged to move to this new model? Students may perceive this change as being a direct way of reducing (or diluting) lecturer power so that there is an additional party enjoying a contribution to grading decisions concerning their efforts and that this is not fully controlled by the lecturer. While there is no doubt that this change will result in a reduction of the power attributed to the lecturer this could form the basis for further research into the area.

- How will students in the programme serve different masters? The students may react to this proposed change in any number of ways. They may interpret the change in the best possible manner where it is seen as being beneficial and it results in a greater level of participation and engagement within the programme. Indeed, this change may serve to add a degree of realism in the student mind to what is already considered to be a practical, grounded and applied educational programme. On the other hand, it may also serve to offer the students a conflicting reporting relationship where they may perceive two “bosses” rather than just one resulting in confusion. This may further complicate the role of the student where they attempt to satisfy two distinct assessors who they may perceive as having two very different sets of requirements, one being academic concerned with student learning and the application of academic theory, the other more applied and concerned with results for the client organization. This may result in making the educational process more complicated and cumbersome. It could be that this response from participating students is just a self-defense mechanism where there is another underlying reason possibly linked once more to attribution theory where the fault lies outside of the student and with someone else. In this case the student may perceive the lecturer as being the one issuing grades that
are below student expectations and the inclusion of another party may give rise to a possible increase. In this manner they may see the addition of an industry representative as being beneficial to them and could result in higher grades. Further research into the understanding of the likely student reactions in addition to further exploring the reasons why participating students were so keen to have a third party included in the process should be considered. In addition, what will the effect be on student learning. Are they likely to learn more within this potential new structure. These issues remain to be investigated further.

- How will disagreements be resolved? Further research needs to be conducted into likely sources of conflict between the various parties within this relationship model and what resolution methods could be applied when these scenarios might arise.

- Are clients willing to be more actively involved in the educational process with the Institute, its lecturers and the students? This change will need to be embraced by the client, as they will assume more responsibility within the process they would need to agree with this new model and their greater role. Could an opt-in / opt-out arrangement be facilitated where clients that wish to participate to this greater extent may be allowed to do so while those that wish to remain outside of this grading process may be facilitated also. Regardless, in doing so this may entail rewriting programme documentation to reflect this inclusion to the assessment structure and an agreed process for the joint assessment of coursework be agreed. This change may strengthen the bonds between the PBL course and industry partners which may further drive credibility as perceived by the student. However, the inclusion of this joint assessment facility could unearth unexpected issues that would need to be resolved.
7.5 Introduction – PBL and Identity

There has been a wealth of research conducted around identity, belongingness and social mobility in the last century, much of it originating from the pioneering work of Allport (1924), Asch (1956), Sherif (1966), Tajfel and Turner (1979), and more recently Jackson et al., (1996), Brown (2000), Browne & Lunt (2002), Monrouxe (2010), Whitley & Kite (2010) and Burford (2012). While this research focused on social identity in general, it has been specifically applied within the area of education by Monrouxe (2010) and Burford (2012) and most of this research centers on a few key themes which will be discussed in the next sections.

7.6 Identity dictates behaviour - “I want to be in a better group…”

An individual’s sense of identity helps dictate behaviour in given situations and there are strong links between individual identity and social identity (Brown and Lunt, 2002; Forsyth, 2006). According to Sluss and Ashforth (2007), an individual’s identity describes how a person affirms his/her worth to others and to him/herself. This emerged very strongly within the research as students were seen to create a very clear sense of identity with their group on the programme across several different timeframes. For instance, the comments made by the participating students suggest that a strong perceived bond was formed in the short-term within the group working on individual assignments, in the medium-term in terms of those students in the PBL cohort that year and then in the longer-term with regards to the entirety of students that had graduated from the PBL masters over the years. That strong sense of fraternity came to the surface during the interviews. For instance, the following comments by Frank and Dan help to support this;
“I knew some of the guys from before we actually started and I have to say, I didn’t particularly like them. But then after a while we were all in this together, we were better than those without a PBL grounding. It sounds a bit nuts but it was like it was us versus them” (Frank)

“Once I knew that someone had that PBL stamp on their head, they were different to the rest. I felt they were one of us and we were better than the rest because of the shared experience we had been through and the training we had received. I felt that each of us were better than the rest” (Dan)

7.7 Belongingness is key

Belongingness is very important as key motivator for individuals and groups have a normative influence on people (Allport, 1924; Asch, 1956). Burke and Tully (1997, p. 883), suggest that “one’s individual identity is a set of meanings applied to the self within a social role or situation”. Identity attempts to “serve as a standard or reference” for helping to evaluate an individual’s behaviour (Burke, 1991, p. 837). Social identity is heavily intertwined with individual identity and is related to one’s perceived role as a member of a collective (group) as distinct from one’s identity as an individual (Stets and Burke, 2000). It was seen that the students interviewed as part of this research initiative developed a strong sense of belongingness within the group that they identified with and distinctions were created between those that were inside the group and those that were clearly on the outside. For instance, the following comments by Mary and Dan articulate this well;
“It was great to be able to talk to colleagues about these projects that we were doing for these real-life companies you know. That I could do this too, just like them” (Mary)

“I know this probably sounds a bit shallow and all that but these guys make serious money, I wanted to be in that group and this was one way to do it” (Dan)

This resulted in the creation of them (out-group) and us (in-group) (Tajfel, 1969; Sherif et al., 1961; Tajfel & Turner, 1979). Those that were viewed as being on the inside (in-group) were attributed highly positive attributes and their contributions to group activities and project work were elevated significantly. In this way the research unearthed incidents of potentially destructive intergroup conflict behaviour (Jackson, 1993; McGarty & Haslam 1997; Fisher, 2000; Whitley & Kite, 2010). Mature students were seen to describe the behaviours of their younger colleagues in a most negative light and used various means and techniques to elevate their own respective positions regularly at the cost of these younger, less experienced students.
7.8 Those within are highly similar – creation of a “unique” subgroup

There is a wealth of evidence that suggests the role played by social perception is key. This is where individuals are seen to underestimate differences between people within a group and then overestimate the differences among groups (Tajfel, 1969; Hutchinson et al., 2006). Students were seen to actively downplay distinctions between themselves and other students within their cohort regularly during the analysis of the interviews. So much so that it quickly became apparent that even if individual students entered the programme from significantly different backgrounds (for instance, non-marketing undergraduates or international students) after a relatively short period of time differences between them and other students on the PBL programme were minimized, they were considered members of the group now and therefore “one of us”.

7.9 Individuals migrate to more prestigious groups

It became clear during this research that students appeared to pursue strategies of migration towards those groups that they considered to be more attractive or advantageous. Where these students might view the membership of these groups as offering benefits that their current group cannot bestow. This pursuit was reflected significantly in the positionality statements made during the interview stage of the primary research period where specific aspirational groups were identified as being far superior to those groups the students enjoyed existing membership. These desired outcomes that emerged within the research held a strong resonance within the extant literature as reflected within the literature review and research findings chapters of this research. The next sections will seek to explain the key reasons for students to engage in this type of behaviour and attempt to find similarities between their actions and the available literature.
7.10 Evidence of classic elements of group formation

From the perspective of SIT, evidence emerged of classic elements of group formation, i.e., Individual Mobility, Social Creativity and Social Competition. It becomes very apparent that all three techniques emerged significantly within the research with examples highlighted in the previous section and perhaps one of the most significant findings is that students on the programme seek *professional mobility* above all else.

*Individual Mobility* refers to the efforts made by students to disassociate themselves from the group they found themselves in and pursue individual goals designed to improve their personal position. With regards to *Social Creativity*, participants attempted to elevate positive distinctiveness when compared to other groups on a regular basis. A key method here was used by mature learners, who suggested deficiencies with younger students in the cohort.

In terms of *Social Competition*, the primary point of distinction that this technique enabled was simply to suggest that students who had graduated from PBL were deemed to be superior to those that did not. In this manner it was the PBL “stamp” that became a differentiator and this aspect of the research is key for academic managers to comprehend.
7.11 Education serves many purposes

Education has been described as making a fundamentally important contribution to the quality and well-being of our society today (Department of Education and Science, 1995). It is also worth noting that education serves many diverse purposes, ranging from mere training individuals for the workforce to broadening minds and the facilitation of opportunities (Fleming, 2018). However, it is also widely accepted that in more recent times’ education has become somewhat of a commodity, in that it is bought and sold within the marketplace similar to every other commodity. For instance, according to Ball (2012), the world that we live in is changing very quickly from what it was 20 years ago in that it’s economic, social and cultural “morphology” is very different from what it used to be. He describes that all the major elements and institutions of society are still in place but that they have become much more connected than ever before. Ball makes it clear that this networked society has had a significant impact in terms of helping to administer a neoliberal policy towards education provision. It can be seen that reform and education policy across the globe is being impacted upon by new layers of decision-makers from business, social enterprise and philanthropy and how some of these decision-makers are entering the traditional domains of the state in creating education policy and service provision. Ball (2012) argues that these changes taking place within education arising from the world being much more connected in nature indicates the beginning of the end of state education in its welfare form.

It has been seen increasingly that business and marketing terminology are being introduced within the educational context. For instance, Norris (2011) provides an extensive overview of business and commercial practices in schools, where students are considered the target market, and advertising towards students using school and business collaborations has emerged as being readily accepted by both public and private sector agents. The view that students and schools could
be described as consumers and markets is seen by Norris (2011) as being at odds with a democratic interpretation of education when he suggests that “the capacity of education to perform its public responsibility and fulfil its liberatory possibilities is profoundly threatened. Instead, constructing markets of young consumers has become a central component of the educative project. When corporations go to school, what they learn is how to undo schooling, as children become subjected to unpredictable and unaccountable market forces” (2011, p. 44). Bearing this in mind it was uncovered that the students participating in this study overwhelmingly viewed the master programme as a means of individual professional mobility. This is discussed in detail within the next section.

7.12 Professional mobility

It was unearthed that students entered the PBL programme primarily to engage in professional mobility in that they sought to use the course to raise their individual profile professionally so that they would be perceived in a greater light to those that they might consider to be their contemporaries. They perceived the programme as a clear means of elevating themselves over and above those that they viewed as being competitors and sought to join social groups that were seen to be more attractive professionally as compared to the groups that they were already enjoyed membership. The question arises as to how this perception of superiority associated with PBL was created. There are any number of possible causes of this. Perhaps it was though communications created by the institute as part of a deliberate marketing effort or maybe it was created by students that were on the programme as a means of justifying their choice of master programme. If the first, then one would have to conclude that this deliberate marketing effort was highly successful as this was highlighted as being a major reason for enrolling on the programme and it appeared to be
shared by most students interviewed. If the latter, then this narrative describing PBL as being far superior a means of pedagogy created by the students enrolled on the programme was highly believable in that many students clearly subscribed to this view and then use it as part of their very own narrative. If created by the students, then this is a very powerful tool that educational institutions could leverage to help create a highly distinct and enduring identity for students to absorb and associate around. This then may become a useful marketing technique that can be applied to programmes that are views as being unique or different to the mainstream in some manner. This professional mobility phenomenon was seen to transgress the three techniques identified by Tajfel and Turner (1986) such as individual mobility, social creativity and social competition. These findings were very much supported by the available research in the area, such as Monrouxe (2010) and Burford (2012). However, what was surprising in this case was simply the extent to which students engaged in this type of behaviour. It appeared that the primary reason for students enrolling on this programme was to enable professional mobility, to enhance student’s career options professionally and to assist them in migrating from one group to another more successful group. The understanding and application of social identity theory in general and the three techniques suggested by Tajfel and Turner (1986) were very useful in terms of understanding the individual and indeed group behaviour on a third level educational programme and provide useful insights into how the students may view both themselves and others within their group. In addition, it provides an understanding of the approach’s students may take to elevate their own respective positions relevant to those around them and how they may choose to justify this change. In many ways what was emerged here is the view that it is the perception of distinctiveness that is more important than actual real, tangible distinctiveness.
7.13 Part-time v’s full-time student research

It is understood that research into student perceptions and views of their experiences on part-time third level programmes in Ireland is relatively limited in that far too much attention has been focused on retention and progression within the undergraduate full-time arena (Fleming, 2018). This is not the case everywhere, for instance other countries such as the UK, US and Canada have attempted to explore the part-time student experience and largely found that they encounter greater feelings of campus isolation, fewer opportunities to engage with the institution and for the most part result in higher attrition levels (Jacoby, 2015). The lack of research from the Irish perspective into this part-time student group is surprising given the focus in third level institutions to increase student enrolments and given the strong findings around identity and SIT emanating from this study it may offer these institutions the required understanding of these student requirements and expectations.

Part-time students tend to be overlooked and therefore, at the very least this research provides a valuable insight into one programme with part-time students thus illuminating this largely unmapped space in the areas of both power and SIT. However, it is projected that the demand for part-time education is likely to increase significantly over the next number of years in Ireland (HEA, 2015) giving rise to the view that this is an opportune time to invest in terms of research and understanding into this sector. It may be the case that institutions that carry out research into the part-time student group in a meaningful way develop “first mover advantage” in that they successfully develop not just attractive programmes oriented towards this segment but also make the learning experience highly involved resulting in greater student engagement. This highlights a significant opportunity for colleges who have perhaps overlooked this segment in the past and wish to increase the proportion of part-time student applications to their institution.
7.14 Student integration and positioning

Educational institutions should be aware that the sense of belongingness possessed by students is a highly significant factor that cannot be overlooked when attempting to form close bonds between the institution and the individual. This could be a very important aspect to consider during a time of high levels of student drop-off, or non-progression within Higher Education at undergraduate level being 15% during 2016 (HEA, 2018). This relatively high non-progression rate was seen to be significantly lower at postgraduate level, particularly within taught postgraduate programmes which is thought to be about 2% (HEA, 2018). While not being necessarily within the initial remit of the study, this research offers an insight into how students on the programme integrate and position themselves within the Institute and based on the findings in this research they align themselves more with their course and peers than with the wider institution. This is at odds with Tinto’s model which suggests that students who leave educational institutions may be viewed as stemming from a series of interactions or contacts between the person with specific attributes such as skills, resources and previous educational experiences and their level of integration with other members of the academic and social fabric of the institution (Tinto, 1993). It is argued that the degree of entry commitment displayed by the student affects the extent of their social and academic interaction when members of an institution and the extent of their integration, has a direct impact on their institutional commitment. Within this programme it appears that this is not evident. Participating students do not appear to form any significant attachment to the Institute as suggested by Tinto’s model. Perhaps the rationale or reason for this non-adherence is that these students are more career oriented and tend to migrate away from the typical undergraduate group within the Institute. Therefore, is this a process of “disintegration” from the typical undergraduate community and evidence of migration towards a professional community perceived as being more attractive?
It is also important to consider it could be the career focused nature of the typical student on this programme may cause them to ignore the wider institutional context of the Institute and just limit their focus on how they can successfully leverage the programme for their own benefit. It could also be that perhaps it is the Institute’s absence of attention towards master courses in general particularly by the Central Services function that has prompted the students to behave in this manner. It could be the case that by fostering this sense of belongingness between the student and the programme using small, close knit student cohorts with a high degree of involvement and participation from both parties. Furthermore, if this sense of involvement and belongingness could be leveraged to a greater degree within undergraduate programmes, particularly during the first and second years of the programme the results may be highly beneficial. This aspect is one that should be researched in greater detail particularly when one considers the enormous benefits that may accrue in this area not only to the institution but towards the student in terms of the significant personal and financial cost of non-completion of programmes of study (HEA, 2018).

It is through careful analysis that institutions will uncover a level of understanding of the student that will facilitate the formulation of an action plan to increase this bond or sense of belongingness the student could enjoy with the institution. What becomes clear from this research is that students appear to be receptive to this type of an approach and seek to cement those feelings once they perceive a recognizable reward. This reward typically came in the form of the programme enabling a perceived elevated social position that is linked to enrolment, participation, industry contacts and shared effort with fellow students. Within this research, students commented on the perception that the course was highly difficult and thus, “not for everyone” and was likened to the “marine corps” in terms of workload and dedication required to graduate. In this way they are establishing an identity or brand associated with the programme that is then sustained by future cohorts who
hear this message from the current students. Comments such as “I had heard this was going to be
difficult” emerged from the interviews and helped create a pre-conception of what future students
believed the educational experience was going to be like. This form of elevating the in-group
through emphasizing the difficulty of the programme emerged in a significant manner during the
research and was a further method the students used to elevate the reputation of the programme
and indeed the students that graduated from it.
7.15 Research Implications for PBL practitioners and academic managers:

7.15.1 Recognize the needs of the group “one size does not fit all”

7.15.2 The role of the Institute?

7.15.3 Novel pedagogies are not simple

7.15.1 Recognize the needs of the group “one size does not fit all”

It became clear that this group of students perceive themselves to be different from undergraduates, but also from other master students that are not enrolled in a PBL programme. Due to this, they want to be treated differently by the educational institution and by the lecturers. They view themselves as being elite and are engaging with this form of education for very specific reasons that are different to those of the typical student. They have a clear sense of what they want from their educational experience and view the programme as a means to an end that will facilitate their advancement in their chosen career. They perceive the relationship with the Institute almost as a marriage of convenience, it is a physical location where they must congregate for a few hours each week, meet other students and complete assignments. It could just as easily be an outsource location such as a hotel meeting room or even a community center that is administered by the Institute. The location does not appear to be important to them, what is important to them is the reputation of the programme and what they can achieve using it. It is critical to note that the students fully agreed with this identity of the PBL programme as being superior to “chalk and talk” traditional type courses and that this reputation appeared to be reinforced by students that were
either currently on the programme or had recently graduated. Indeed, almost all those students that participated in the study supported the view that the programme was far superior to other masters programmes on the market and that the PBL ethos was far more engaging and enjoyable than the traditional student-lecturer classroom format. Indeed, one might query their benchmark used for comparison. If these students were using their undergraduate experience as a comparison, this may have been over 10 years ago for most of the mature students and to what extent are these students remembering what they wish to remember. In addition, they may be recalling large undergraduate lecture groups of 200 students or more and using this as a comparison for a small, tight-knit, postgraduate class of between 16 and 18 students. In the same way these students may be comparing their perceived experience of a business programme run with a PBL ethos at Master level with other non-PBL Master programmes with little or no direct experience of these programmes. It could be the case that much of what they know of these non-PBL programmes is based on inaccurate and perhaps outdated sources of information that is no longer valid. It may be the case that they are comparing their perceived experience with information on the comparison programmes that they have chosen to believe rather than be objective and impartial and look upon the competing programmes in a fairer, more holistic manner.
7.15.2 The role of the Institute?

It is clear that the students place more currency on the links with industry through the various client organizations that they will work with during their time on the programme rather than the college experience. Bearing this in mind, the question arises – where does the Institute fit within this dynamic? The research indicates that there is a theory-practice divide (TPD) as perceived by the students that participated in this research. It became abundantly clear during the research that they greatly valued the practice element as represented by the contacts and links with industry partners but placed much less emphasis on the theory elements of the programme. It was almost like the students perceived their educational experience on the master programme as a career networking service that facilitated individual mobility opportunities. How will the Institute bridge this TPD divide? Perhaps PBL is the solution to this problem or is it contributing further to the dilemma? Is there an “ideal” balance in terms of theory and practice or does the PBL framework as seen through this master programme disrupt the theory – practice binary? The question could be asked is PBL bridging the gap or diminishing it? Perhaps a solution to this question is for the Institute to emphasize the need for the unique knowledge that is required to be “part of the club”. That it is not just the access to industry contacts and partners that is important for students participating on this programme but the imparted knowledge that they will gain while actively engaging with the lecturing staff and the systems of the Institute that will help differentiate them from their peers within the marketplace. In this way, rather than attempting to challenge or disrupt the strong sense of group identity possessed by this group, the Institute should play on it further, harness it and use it for best effect. Greater research must be undertaken to uncover the possible causes for how this perception of superiority associated with PBL was created. Two potential causes are suggested below but it is likely that more exist.
The reinforcement of the programme as being superior and career advancing in the student’s perception leads to future students enrolling and in this way the cycle continues where the *in-group* elevates the position of the *in-group* within the discourse. A question asked during the interviews around whether they would recommend PBL to a friend attempted to uncover any latent feelings of dissatisfaction these students may have harbored towards the programme. In response to this most students stated that they would “but not to every friend”, only to those who had the required experience and were considered strong enough to succeed within a PBL type environment. The application of the *in-group* and *out-group* when looking both inside the cohort of PBL students and outside the cohort was very useful and should greatly assist educational institutions in enabling students to form strong bonds with their own dedicated *in-group* as well as assisting these student’s identity suitable *out-groups* with which to draw comparisons against. Whether the chosen *in-group* are mature students or those with a PBL qualification is beside the point, credence must be given to some positive attribute that this group possesses in comparison with the *out-group*. Once this positive attribute is identified it may be emphasized though marketing communications by the institution and promoted as a desirable aspect of this group within the programme. Once established it almost becomes self-sustaining as it appears to be fueled successfully by the current cohort of students.
7.15.3 Novel pedagogies are not simple

What becomes very clear from this research is that the introduction of these novel forms of pedagogy that give rise to new partners in the educational process can unearth issues not previously considered and the incorporation of these forms and partners is not a simple process. The professional development of third level academic staff in Teaching and Learning should introduce these more complex issues of, in this case, power and identity. By doing so it can provide alternative lenses for staff to interrogate their professional practice. It can also help these staff to recognize the ever-present nature of power relations in education regardless of the pedagogy used and who might be involved in terms of external industry partners etc. It becomes clear that academic managers when designing content for Continued Professional Development (CPD) within the academic workplace need to further explore the ideological and psychological dimensions of education rather than simply the “mechanics” of specific pedagogies to ensure a clear understanding of the key implications. In addition, there should be a focus placed on academic staff having participated in a PBL environment and are returning to a non-PBL space have a newly acquired lens that may be used to interrogate their day-to-day practice. Centers of Learning could be created to uncover, highlight and circulate examples of best practice from a PBL perspective. In addition, when attempting to integrate these newer forms of pedagogy the institution must decide where its limited efforts will be invested. For instance, will it continue to primarily engage with undergraduate students for the most part given the increasing focus on student numbers in line with HEA and DES requirements. Or, will it strive to capitalize on the success it has achieved in developing a successful PBL master programme and further invest into these more contemporary but niche type offerings. To do so will require significant investments in
terms of staff development and possible technological and infrastructural changes within the
Institute to support this endeavor.
Conclusions

8.1 Introduction

This chapter summarizes the key findings from the research and conclusions in terms of how it develops understanding and contributes to research on the role and importance of power relations and identity theory within problem-based learning and educational research. The research carried out builds upon the review of extant literature and the empirical data presented in the Research Findings Chapter which is then developed further in the Discussion Chapter. In this manner, this section will outline a series of conclusions emerging from this research.

At one level this study supports claims made in existing research such that students who participated in this study appear to prefer PBL due to this method of education providing a greater level of enjoyment and engagement on one hand but also offering the student a learning environment that is perceived as being highly authentic. The research carried out in this study supports the view that it is this degree of authenticity that serves to create such a strong affinity with the students interviewed and one that is used as a very distinct and identifiable means of currency within the employment market and is therefore highly valued. Interestingly, the research conducted in this study suggests that it is within this employment market that this particular programme run using a PBL ethos is used as a means of enabling distinction between students that have graduated from the programme versus those that have not. In this manner, the students appear to use Problem-based Learning as a method of distinction and differentiation in the workplace.

This chapter will offer conclusions in relation to specific research objectives identified at the outset of this study. While this study is heavily contextualised within one particular programme in a single third level Institute in Ireland, recommendations are made regarding the implications of this
study for education managers, administrators and lecturers in relation to the management of such PBL programmes in an Irish and indeed a broader context. Then finally, further research opportunities are identified that emerge from this study that add to the body of knowledge in third-level education, particularly focusing on part-time students in postgraduate programmes.

Firstly, the research questions established for this study are highlighted. These questions are as follows;

8.2 Research questions of the study

The two research questions guiding this research centered on:

- What techniques of power are evident on a specific PBL-oriented programme as perceived by the participating students?

- From the perspective of Social Identity Theory, what techniques are used by the students to create a cohesive group identity and to distance themselves from other groups?

These questions are orientated at postgraduate level in a third level educational institution in the Republic of Ireland. Since these issues had not been explored within the higher education literature to date in relation to PBL, it was deemed opportune to investigate them. Based on the research and analysis carried out in this study the following conclusions emerge.
8.3 The context is challenging

While establishing that the context of the application of PBL-oriented programmes are highly important, it is this very context that provides a significant challenge due to the addition of third parties to the educational process. These industry partners or client firms that play such an important role and are so highly regarded by the students that incorporating them further within the PBL model where they are given a dedicated part to play in formal assessment of student coursework is no longer advisable but absolutely required. Of course, this addition comes with its own issues in that this process needs to be formally created and agreed, not least the lecturers themselves who may interpret this change with a loss of power and autonomy with the inclusion of these industry partners.

Regarding context, it was uncovered that the more “real” the assignments presented to the students appeared to be, the more they engaged with the learning process and placed value on the work they were conducting for the industry partner. It was found that the very authenticity of the programme was one of the strongest contributors to its reputation as perceived by the students that participated in the research. By ensuring that the student sees value in the theory that is provided by the Institute coupled with the real-world authentic nature of the practical work for the industry partners is key for the success of this type of application of PBL. The pairing of both these key elements as being essential in the mind of the student will assist in the credence allocated towards the Institute and indeed the lecturer.
8.4 Less student perceptions…More problematizing the pedagogy

While aspects of this study indeed fall foul of this, research projects in teacher education should move away from looking at student perceptions of the learning experience, which is potentially placing the student into the role of a consumer evaluating a product that they have purchased. It could be argued that this activity has partly been driven by a focus of the HEA and Department of Education and Skills in Ireland in addition to a global trend promoting an examination of the student experience to increase engagement and reduce student attrition levels. Instead, the focus perhaps should be placed on the problematisation of the different types of pedagogy within higher education with a view to improving teaching effectiveness and teaching skill, thus in turn improve the learning outcome for the student and perhaps even the perception of the learning experience.

In terms of research into teaching effectiveness, it is interesting to note that Martin et al., (2002, P. 388), suggest the real problem is “not how much teachers know or what their level of teaching skill is, but what it is they intend their students to know and how they see teaching helping them to know”. Further, Trigwell et al., (1999, P. 68) state that teachers who believe they are involved in more traditional (information dissemination) forms of education are more likely to create students who themselves adopt a “more surface approach to learning”. This view is supported in a more recent study conducted by Prosser et al., (2014) which states that even in large class sizes, at undergraduate level, it is still possible that “students can be challenged to think deeply, critically and creatively” (P. 794).

In addition, when focus is placed on what the students are doing and learning, when teachers promote a sense of self-directed learning then these students are much less likely to engage in “surface learning”. In this way perhaps the focus in education should be more on how to enhance the teaching skills and indeed the self-awareness of teachers in attempting to understand how best
to improve their effectiveness in the classroom, rather than placing the student into the role of a consumer in a commercial marketplace.

8.5 “I want to be in a better group…”

Individuals strive to increase their social identity by moving to other more attractive groups and in this instance, a PBL education was perceived as being an enabler to help effect this social mobility. The objective to migrate from one group towards another was key to appreciate why students firstly joined the course and secondly to understand their behaviour once they had enrolled on the programme. The motivation to engage in professional mobility by students through this PBL programme is key for education managers to understand as it not only supports the view within extant literature that education assists social mobility but also that prospective students will create the rationale for this mobility themselves through creating narratives to describe both themselves and their in-group in a highly positive light. This is key in that it allows education managers a potentially open route to persuade the marketplace and those prospective students who are keen to advance beyond their contemporaries, an engaging dialogue or rationale to support their own aspiration to advance themselves. What was clear was that the Problem-based Learning stamp and identity became a very compelling differentiator for these students within the education marketplace. This focus on how students position themselves as part of a cohort or group rather than as an individual and should form the basis for future research projects.
8.6 Part-time student circumstances are different…

Part-time student circumstances are very different to their full-time colleagues in many ways, first and foremost they appear to have a different set of requirements and needs from their educational provider. They are certainly less well researched by academics in general, particularly in the Republic of Ireland. Perhaps one of the reasons for this lack of previous research is the focus placed on full-time equivalent (FTE) students by the Irish Department of Education and Skills and therefore by each third-level institute as a result. When one of the most important stakeholders is focused on full-time students this tends to provide a steer for other participants within the environment.

Within this study it emerged that these students seek a different level of involvement from the Institute than full-time students and in fact created a stronger bond with the programme they undertook rather than with the Institute itself. It also found that this group sought a greater connection with the industry partners over the course of their academic programme than with the Institute. Perhaps it was that they perceived a greater similarity with these industry representatives, given that they are actively involved in the business sector themselves this is possibly not surprising. This emerged very clearly in the comments they made, and they engage with the Institute as a means to an end to achieve a master’s degree through a PBL methodology that they perceive as being superior to others and will deliver them tangible rewards in the marketplace. This area of research into part-time student experiences and behaviour is overlooked in general and represents a significant opportunity for third level providers in the future.
8.7 Novel pedagogies are just not simple

PBL is considered to be one of the most significant innovations in teaching for many years (Boud and Feletti, 2013) and with innovation challenges follow. The creation and development of new, innovative forms of pedagogy and even those that are not particularly new but maybe new to the individual institution need to be fully considered before they are launched. While the introduction of these forms of pedagogy are commendable and carried out for all the correct reasons such as demonstrating a willingness to engage with a changing educational marketplace, embracing new developments in teaching and responding to expressions of change by academic staff, the longer-term complexities and implications should be fully considered. Investments in staff training in particular must be made to support the introduction of these new programmes, particularly towards staff acting as facilitators. Perhaps some of the issues arising in this study might have been avoided by staff performing the facilitator role in a more consistent manner. In addition, these new forms of pedagogy demand a greater understanding of the role played by assessments and assessment structure in terms of how they can influence the power relationship between the lecturer and the student. Advancements and new programme introductions made in this area should not be knee-jerk reactions to short-term developments and opportunities, they should be carefully assessed and matched with the resources and long-term goals of the institute in addition to the skill-set of the academic staff. The continued professional development (CPD) of those staff that express a willingness to engage in these forms of education should also be supported and incorporated into their developmental plans within the Institute. This aspect, the human resource considerations within the third-level institute, is key to be managed correctly to ensure on-going support and engagement from both academic and administrative staff. Participation, in terms of teaching on these programmes should be gently encouraged rather than made mandatory so that academic staff
enter this form of pedagogy with a clear willingness to embrace the fundamental principles of Problem-based Learning and perhaps even to create change. A Problem-based Learning “cluster” or community could perhaps be created by those staff willing to participate both within the faculty and throughout the wider Institute to perhaps include other third-level providers in the locality. The focus within this cluster could be to emphasize best practice and discuss new advancements and techniques in addition to performing a support-group function to staff engaging in PBL.

This research calls into question centric discourse into pedagogical development and suggests that we should question many of the claims around the advantages of what is being created and to appreciate that there may be elements that cannot be planned for or easily mitigated against. So, even when these considerations have been accounted for, engaging in novel forms of pedagogy is just not simple.

8.8 Future Research:

Bearing in mind the outcomes that have emerged over the course of this research it becomes apparent that there are several future studies that may be conducted in this area. One such area to explore further is developing our understanding of the role and effects of power within the student / lecturer relationship not only in higher education at postgraduate level but also in undergraduate programmes and indeed expanded to second level schools. Given that the typical student at undergraduate level in higher education is likely to be aged between 18 and 22 years, this offers a very different learner profile to be understood and the relationship between this typically younger individual, with much less life and commercial experience, and the lecturer is expected to be quite different to those interviewed in this research. This relationship should be explored to understand
the role of power and how this affects student engagement with the programme and the learning outcomes from the pedagogical experience.

A further area which was not covered in this research was the perception and experiences of the lecturer in Problem-based Learning programmes. How do they understand the relationship they have formed with the students in these types of courses? How do they perceive the role of the facilitator? Do they feel that they are performing this highly important role adequately? What supports, if any, might enrich their execution of this role in a positive way? Do they perceive any differences between their role in traditional and contemporary forms of pedagogy? Would they be surprised at some of the descriptions and keywords students use to describe the role of the lecturer within PBL? Do they see a difference between students that choose to enrol on PBL courses versus those they encounter at undergraduate level? Would they support a situation where the student enjoys additional power and authority, potentially at their expense? How would they perceive the role of the lecturer if these changes were made, might they be fearful and resistant, or might they embrace these changes in favour of what may be perceived as a more balanced learning environment for students?

Another area that could be unearthed further involves the students directly. While it became clear in this research that students possess very strong feelings about the levels of power that lecturers enjoy and, in many cases, expressed dissatisfaction over their perceived lower power positions, how might they react if their power levels were increased and they were to shoulder more responsibility for their learning experience? Would they be willing to assume greater levels of responsibility and ownership within the PBL process given that the majority of students that were interviewed as part of this research stated that they had no wish to engage in either peer or self-assessment as part of this programme? Furthermore, if developed, how could this power-sharing
relationship be managed in the case of disputes and what escalation paths or procedures would be established to resolve any potential issues between the lecturer and the students? Also, a point to note is that this was the experience of students on their first PBL experience. Might this be different if these students were to continue their PBL journey and were interviewed once more in the future. Might they be more willing to assume greater levels of responsibility on future PBL programmes now that they possess the benefit of experience? This could form the basis of a further study into the nature of power within a PBL environment.

A further area to explore is the involvement of a third party, in the form of the client organization in assessment of the work carried out by students during the programme. While this aspect is indeed programme specific as not all PBL programmes has such a circumstance, it is worth consideration. It is envisioned that this involvement would be carried out in a joint manner with the lecturer, and indeed, clear guidelines would need to be established providing scope and limits to the role played by the client. A further area to investigate is whether training would be required to be provided to these external individuals before the project might commence to ensure they perceive themselves to be adequately equipped to analyze and play a role in grading the student efforts. This begs the question; would they be willing to do so? While they are gaining essentially a free consultancy service from their participation in the programme in its current form, would they agree to the deeper level of involvement and responsibility that would be required in this case? What might they gain from such a commitment?

Regarding self-identity, it is important to understand how students form their own self-identity, in addition to the sense of identity they form with colleges, programmes, other students and desirable professional groups. Educational institutions should be aware that the sense of belongingness possessed by students is a highly significant factor that should be explored further to uncover ways
that this may be leveraged to increase the bonds a student may feel towards the institution or indeed the individual programme of study the student is enrolled. This may be key is reducing student attrition levels and non-completion levels while in third-level education and keep these students in college until graduation.

It is also very important to note that the students fully agreed with the positioning of the PBL programme as being superior to “chalk and talk” traditional type courses. It is also important to note that this reputation appeared to be reinforced by both current students and those that had graduated from the programme. This needs to be further explored to understand how this positioning took place. Was it created by the students or was this a deliberate marketing communications strategy conducted by educational institutions.

If created by the student, could this be a self-defense mechanism designed to support the decision made in enrolling in the programme selected to reduce post-purchase dissonance as experienced by the consumer, i.e. student. This is worth exploring further through future research initiatives to uncover whether the positioning of the programme as perceived by the student is in fact a component of this self-defense mechanism.

A final area of further research is to establish the most desired in-group that student’s enrolling on the programme perceive the course enabling them to join. Positionality statements made by students during the interviews carried out as part of this research suggest that they wished to either leave one group and/or join another, more attractive group and that the PBL programme would facilitate this move taking place. It emerged that these students placed a high value on peer relationships but sought to get ahead using social identity theory. Research should be conducted into identifying patterns and overlaps in terms of the actual identity of the group that most students
participating in PBL master’s courses see themselves as aspiring to become members due to their wish to “be seen in a higher light”.
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Appendices

Appendix 1 – Programme Learning Outcomes & QQI Award Standards

Programme Module Learning Outcomes: (Approx. 29 weeks per academic year).

1. Marketing & Management Planning, Strategy and Innovation. This module will:
   - Provide learners with the tools necessary to prescribe long-term plans, strategies and innovations which will enable firms to achieve their corporate objectives.
   - Build students’ abilities to analyze internal and external factors affecting organizational performance.

2. Integrated Marketing Communications (incl. New Media). This module will:
   - Develop students’ skills in using modern communication tools in practical situations.
   - Research marketing communication theory and apply it to practical situations.
   - Set problems requiring students to develop skills reflecting those used by professional practitioners.

3. Financial Analysis for Management Decisions. This module will:
   - Engage learners in key financial matters that influence the success or otherwise of organizations.
   - Apply financial management to the planning and control of corporate activities.
   - Interpret the technicalities of financial analysis with an emphasis on explaining and rationalizing the information produced with each activity.

4. Brand and Product Management & Commercialization. This module will:
   - Evaluate the importance of branding within the arena of contemporary marketing.
   - Consider the implications of product development at all stages of design and commercialization.
- Evaluate the role branding has to play in the development and commercialization of products and services.

5. **Consumer Behaviour and Relationship Management. This module will:**

- Analyse the critical issues in consumer behaviour thought and practice.

- Evaluate consumer choice processes, the effects of experience and learning, attitude formation, social networks and their impact on consumption, segmentation, brand management and communications processes.

- Apply theoretical frameworks, market research, experiments and detailed case studies.

6. **Research Methods: This module will:**

- Evaluate research methods and tools that help the academic and/or business manager to identify, understand and solve management problems and improve decision making ability.

- Analyse business problems and defend scientific research as a problem-solving tool.

- Select and apply appropriate research designs.

- Engage in the planning and preparation of a research thesis.

<table>
<thead>
<tr>
<th>Programme Learning Outcome</th>
<th>Level 9 Indicator</th>
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<tbody>
<tr>
<td>1. Apply comprehensive knowledge and critical understanding to the fields of marketing and management strategy</td>
<td>Knowledge - <em>Breadth</em></td>
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<tr>
<td>2. Provide insights on the current trends, developments and innovations in marketing and management strategy</td>
<td>Knowledge - <em>Kind</em></td>
</tr>
<tr>
<td>3. Offer solutions to a wide range of planning and strategy issues and problems using well supported arguments</td>
<td>Know How &amp; Skill - <em>Selectivity</em></td>
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<td>4. Record, analyse and synthesize information about complex organisational issues</td>
<td>Know How &amp; Skill - <em>Range</em></td>
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<tr>
<td>5.</td>
<td>Evaluate multiple sources of marketing and management data and information</td>
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<tr>
<td>6.</td>
<td>Construct plans for the commercialization of innovative products and services</td>
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<tr>
<td>7.</td>
<td>Analyse and evaluate financial information as it relates to marketing and management planning and strategy</td>
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<tr>
<td>8.</td>
<td>Understand and manage various business relationships and associated behaviours</td>
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<tr>
<td>9.</td>
<td>Plan and manage the promotion and communication of business messages to stakeholders</td>
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<tr>
<td>10.</td>
<td>Articulate and defend marketing and management ideas, insights, analyses and policies to peer and practitioner audiences, using a variety of business media and communications skills</td>
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<tr>
<td>11.</td>
<td>Make advanced judgements and informed decisions on marketing and management strategy issues</td>
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<td>12.</td>
<td>Act in a professional and ethical capacity</td>
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<tr>
<td>13.</td>
<td>Act in a wide variety of marketing and management contexts and roles</td>
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<tr>
<td>14.</td>
<td>Handle unpredictable, ill-defined and complex marketing and management business scenarios</td>
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<tr>
<td>15.</td>
<td>Advance their ability to learn through self-analyses of, and reflection on, their own learning style</td>
</tr>
<tr>
<td>16.</td>
<td>Develop their own learning independently of this programme</td>
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<tr>
<th>Level 9 Indicators</th>
<th>QNI Business Award Standards</th>
<th>Programme Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge Breadth (BL9)</strong></td>
<td>A systematic understanding of knowledge, at, or informed by, the forefront of a field of learning</td>
<td>Understanding should be one of an advanced theoretical and of an emergent critical appraisal.</td>
</tr>
<tr>
<td><strong>Knowledge Kind (BL9)</strong></td>
<td>A critical awareness of current problems and/or new insights, generally informed by the forefront of a field of learning</td>
<td>Awareness of some seminal original work in a sub-field of business and have read and appraised same.</td>
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</table>

On successful completion of this programme, the learner will be able to:
- apply comprehensive knowledge and critical understanding to the fields of marketing and management.
- provide insights on the current trends, developments and innovations in marketing and management strategy.
<table>
<thead>
<tr>
<th>Table Title</th>
<th>Description</th>
<th>On successful completion of this programme, the learner will be able to:</th>
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<tbody>
<tr>
<td><strong>Know-how and skill</strong></td>
<td><strong>Range (BL9)</strong>&lt;br&gt; Demonstrate a range of standard and specialized research or equivalent tools and techniques of enquiry</td>
<td>• record, analyse and synthesize information about complex organisational issues&lt;br&gt; • evaluate multiple sources of marketing and management data and information&lt;br&gt; • articulate and defend marketing and management ideas, insights, analyses and policies to peer and practitioner audiences, using a variety of business media and communications skills</td>
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<td></td>
<td><strong>Selectivity (BL9)</strong>&lt;br&gt; Select from complex and advanced skills across a field of learning; develop new skills to a high level, including novel and emerging techniques</td>
<td>• offer solutions to a wide range of planning and strategy issues and problems using well supported arguments&lt;br&gt; • analyse and evaluate financial information as it relates to marketing and management planning and strategy&lt;br&gt; • make advanced judgements and informed decisions on marketing and management issues.</td>
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<td></td>
<td><strong>Competence Context (BL9)</strong>&lt;br&gt; Act in a wide and often unpredictable variety of professional levels and ill-defined contexts</td>
<td>• construct plans for the commercialization of innovative products and services&lt;br&gt; • plan and manage the promotion and communication of business messages to stakeholders&lt;br&gt; • act in a wide variety of marketing and management contexts and roles&lt;br&gt; • handle unpredictable, ill-defined and complex scenarios</td>
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<td></td>
<td><strong>Competence Role (BL9)</strong>&lt;br&gt; Take significant responsibility for the work of individuals and groups; lead and initiate activity</td>
<td>• understand and manage various business relationships and associated behaviours</td>
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<td></td>
<td><strong>Learning to Learn (BL9)</strong>&lt;br&gt; Learn to self-evaluate and take responsibility for continuing academic/professional development</td>
<td>• advance their ability to learn through self-analyses of, and reflection on, their own learning style&lt;br&gt; • develop their own learning independently of this programme of learning</td>
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<td>Competence</td>
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<td><strong>Insight (BL9)</strong></td>
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<tr>
<td>Scrutinize and reflect on social norms and relationships and act to change them</td>
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Capacity to participate in reflective communities of practice and commitment to continuous professional development. Capacity to contribute valuable creative and innovative perspectives to develop business initiatives.

On successful completion of this programme, the learner will be able to:

- act in a professional and ethical capacity
### Appendix 2 – Ethics approval feedback form

#### Faculty of Education and Health Sciences Research Ethics Committee

**Research Ethics Committee Feedback**

<table>
<thead>
<tr>
<th>Title of Research Project</th>
<th>Exploring students’ experiences of Problem-Based Learning</th>
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<tbody>
<tr>
<td>Ethics Number</td>
<td>2016_11_01</td>
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<tr>
<td>Principal Investigator</td>
<td>Dr Oliver McGarr</td>
</tr>
<tr>
<td>Date of EHSREC Meeting</td>
<td>16th Nov 2016</td>
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<table>
<thead>
<tr>
<th>Section 1: Eligibility for Chair’s Action</th>
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<tr>
<td>Section 2: Ethical Issues</td>
<td>No</td>
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<tr>
<td>Section 3: Approved Procedures</td>
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### Section 4: Study Design and conduct of the study

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<thead>
<tr>
<th>a. What are the aims of this research?</th>
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<tr>
<td>Section 5: Recruitment of research participants</td>
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<td>------------------------------------------------</td>
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<tr>
<td>a. Describe the population you will recruit from</td>
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<tr>
<td>b. How will you source or identify your participants?</td>
<td>Given that this study involves a lecturer conducting research with his own students, please outline how the ethical issues pertaining to dual role research will be addressed. It is necessary to address the imbalance of power that exists in this researcher-participant relationship. Steps must be taken to ensure that students feel that their participation in the study is voluntary and that their course grades will not be affected by participation or non-participation in any way. It is important, therefore, to first of all use a gatekeeper (someone other than the students' lecturer) to recruit the participants for the study. As regards conducting the study, one option is to ask a person other than the lecturer to conduct the student interviews and record their data. The lecturer would then have access to anonymised data only. If this is not possible, another option would be for the lecturer to conduct the interviews himself but to wait until the module is ended and all coursework/exams have been completed and graded.</td>
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<td>c. How many participants</td>
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<td>d. Provide details of financial remuneration or any other form</td>
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e. Where will the research work be done?  
I suggest that the researcher informs the ethics committee at LIT that this research is taking place at LIT but has been approved by the EHSREC at UL (when final approval is given).

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<th>Section 6: Consent</th>
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<td>Details of how you will obtain consent (where relevant)</td>
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<th>Section 7: Care and protection of research participants</th>
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<td>a. Participation time for each participant</td>
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<td>b. If there are multiple testing sessions for each participant, please provide breakdown</td>
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<td>c. Provide detailed information on potential risks to participant or researcher from procedures or techniques to be employed in this research.</td>
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<td>d. Provide justification of the predictable risks and inconvenience to participants</td>
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<th>Section 8: Protection of participant confidentiality</th>
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<td>a. Who will have access to data collected from participants?</td>
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<td>b. How will confidentiality be ensured</td>
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c. How long will the data be kept? Destruction Method?

| Please state a figure between 7 to 10 years. | The data will be retained for 7 years and then manually deleted from file. |

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<th>Section 9: Feedback to Participants and Relevant Communities</th>
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<td>Describe how the results of the research will be made available to the participants and to the concerned communities</td>
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<th>Section 10: Indemnity</th>
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<td>Is research covered by UL insurance Y/N</td>
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<th>Section 11: Document Checklist:</th>
<th>Which documents are attached</th>
<th>Comments EHSREC</th>
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<tr>
<td>Y</td>
<td>N/A</td>
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<tr>
<td>Volunteer information sheet</td>
<td>x</td>
<td>Please format with UL logo and correct tagline (see samples on website). Please remove student mobile number.</td>
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<tr>
<td>Parent/carer information sheet</td>
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<td>Volunteer informed consent form</td>
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<td>Please include a statement detailing consent for audio recording.</td>
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<td>Parent/Carer Informed Consent Form</td>
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<td>Letter to school principal</td>
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<td>Questionnaire</td>
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<td>Interview/survey questions/focus group script</td>
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<td>Recruitment letter/email/poster</td>
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<td>Acceptance of UL child protection form</td>
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<td>EHSREC or PESSREC Procedures</td>
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**Section 12: Declaration**

**Section 13: Appendices**

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<th>EHSREC Recommendations</th>
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<tr>
<td>Approved</td>
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<td>Re-submit</td>
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<td>Minor changes – amend as necessary and resend to EHSREC</td>
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<td>Refused</td>
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**Notes**

**Title:** Please keep the title of the study consistent between the application form and information/consent sheets. A different title can be used for the information/consent sheets but please place this title in brackets after the title stated on the application form.  

**Corrected.**
Appendix 3 – Interview Questions

Problem Based Learning:

This survey was designed to help understand the student experience when participating in the PBL Master programme at the Institute. Participation in the study should take no more than 60 minutes and your time and contribution is greatly appreciated. Please be assured that all responses will be treated confidentially and stored securely. At any point during the interview you may opt out and the interview will be ceased.

Section A: Introduction

1. Can you describe your educational journey to date and how you came to join the course? What motivated you to enroll?

2. What was your initial thoughts of PBL when you heard about it? What did you think it involved? What came to mind when you heard about it? Did you feel well prepared?

3. How was it explained to you on the programme? Did this explanation match what you understood PBL to be?

Section B: Roles

1. How would you describe the role of the lecturer in your PBL programme? What 3 keywords would you use to describe this role?
2. Was this role different to the lecturer role you encountered in previous educational courses?

3. How would you describe the role played by the student in your PBL programme? What 3 keywords would you use to describe this role?

4. Did these roles change or alter in any way over the course of the programme?

5. Were these roles as you expected them to be within a PBL run course prior to starting the programme? If different, how so?

Section C: Assessment

1. How did you approach your assessments?

2. Did you feel you were fairly assessed based on your efforts? Did you feel that your classmates were assessed fairly?

3. As a student, did you feel that you possessed an input into problem design, problem allocation and/or group allocation?

4. Did you feel that your performance within group work was accurately assessed? What about your performance in individual work?

5. How do you think your classmates on the programme felt about the marks allocated for their contribution to group work? If you think their views are likely to be different to yours, why do you believe this may be the case?
6. Do you feel that it was more important to solve the problem or to demonstrate to your lecturers that you solved the problem?

7. If unhappy with allocated marks for an assignment, did you feel you had a route of appeal? Did you ever request an appeal?

8. Did you feel that you could pursue alternative paths when attempting to solve problems to those suggested by your lecturers?

9. Do you believe that the student possesses enough control over marks allocation currently within the PBL programme?

10. If no, what do you believe to be the ideal level of control the student should possess within PBL programmes? Should students enjoy an equal level of power or control as lecturers? If so/not – why?

11. Do you feel the lecturers should alter the assessments in any way?

**Section D: Experience**

1. What was your first experience of PBL on the programme and how did you feel when you engaged with it? For instance, did you feel nervous or excited?

2. Did it take you time to get comfortable with working with PBL? If so, how long approx.?
3. Tell me what you think your classmates think about PBL? Do you think it’s for everyone? Do you think there are times when PBL is not really suited to learning?

4. Do you think PBL fits with how you learn best? How do you think you learn best?

5. What was the highlight of the PBL experience for you so far? What has been the lowest point / worst aspect?

6. Did you feel PBL made you more engaged with the programme? Did it encourage you to be more engaged with your classmates?

7. Did you enjoy the level of participation that you feel you possessed? Would you have preferred more / less?

8. When working on PBL problems, did the solutions you create surprise you?

9. Looking back at it now, what are your views of PBL?
   
   a. How would you explain what PBL is to another person such as a member of your family or friend?
   b. How would you explain it to an employer?
   c. Do you think it will help your employability?
   d. Has it improved your skills so far? If so, what skills has it improved?

10. What suggested changes would you make to how PBL was delivered?
Section E: The Future

1. Would you recommend a PBL programme to a friend?

2. What are your future career goals? Are they different to the ones you had before starting the programme?

3. Has your PBL experience changed you in any way? Please explain.
Appendix 4 – Informed Consent Letter

A Study Which Aims to Explore the Reality of the PBL Experience at a Third Level Institute.

Participant Information Sheet

What is the research about?
This research aims to explore the experiences of third level students that have graduated from a Master Degree at the Institute that is conducted using a Problem Based Learning (PBL) methodology.

Who is undertaking it?
This research is being undertaken by Ronan O'Brien, a Lecturer at the Institute and also completing a PhD in Education at the University of Limerick.

Why is it being undertaken?
This study is being conducted to determine the true PBL experience of students at a third level institution.

What are the benefits of this research?
The benefit of this research is that we can get a view or understanding of the real experience of graduates of a PBL programme with a view to providing us with a greater understanding of this form of education for the future.

Exactly what is involved for the participant (time / location, etc.)
Graduates of the programme will be asked if they would like to participate in the study. Each interview should last between 60 and 90 minutes. The researcher will ask a number of questions that are designed to uncover the students experience while on the programme.

Right to withdraw
No information will be shared outside of the interview and you are free to withdraw from the study at any time without giving a reason. If you chose not to participate in this study this will not affect you in any way.

How will the information be used / disseminated?
I hope to publish the findings of this research in a report which may be useful to other lecturers and students.

How will confidentiality be kept?
All information gathered will remain confidential and will not be released to any third party. All data will be held securely on a password protected computer in the investigators’ offices.

**Contact details:**
If at any time you have any queries/issues with regard to this study our contact details are as follows:

Ronan O’Brien  
Department of Business  
School of Business and Humanities  
Limerick Institute of Technology (LIT)  
Tel: (087) 7870270 or email at ronan.obrien@lit.ie  

Dr. Oliver McGarr  
Department of Education and Professional Studies  
Faculty of Education and Health Sciences  
University of Limerick  
Tel: (061) 202934 or email at oliver.mcgarr@ul.ie  

If you have concerns about this study and wish to contact someone independent, you may contact:  

Chairman Education and Health Sciences Research Ethics Committee EHS Faculty Office  
University of Limerick  
Tel (061) 234101 Email: ehsresearchethics@ul.ie
Appendix 5 – Participation Verification Sheet

A Study Which Aims to Explore the Reality of the PBL Experience at a Third Level Institute.

Participant Verification Sheet

I confirm that I have received a transcribed copy of my interview for the above study and attest to its accuracy. I have also been given an opportunity to edit / alter the comments I made in this interview.

Name: _______________________________________

Date of Interview: ______________________________

Signature: ____________________________________

Contact details:
If at any time you have any queries/issues with regard to this study our contact details are as follows:

Ronan O’Brien
Department of Business
School of Business and Humanities
Limerick Institute of Technology (LIT)
Tel: (087) 7870270 or email at ronan.obrien@lit.ie

Dr. Oliver McGarr
Department of Education and Professional Studies
Faculty of Education and Health Sciences
University of Limerick
Tel: (061) 202934 or email at oliver.mcgarr@ul.ie
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University of Limerick
Tel (061) 234101 Email: ehsresearchethics@ul.ie
Appendix 6 – Sample Interview Transcript – anonymized

Interview 8
Student Name: “Karen”
Interviewer: Ronan O’Brien (IN)
Date: 26.07.17
Time: 11:50am
Duration: 41 mins 8 secs

Ok, so this is an interview with “Karen” on the 26th of July 2017. The interview should last about 50 minutes or so. Like I said earlier if there any question you would prefer not to answer or would you prefer to skip over that’s perfectly fine. So the first question is; could you describe your education Journey to date and how you come to join the PBL course?

(Karen) Ok, um, I did my undergrad in business in UL and it was a good few years ago…I mean I graduated in 2000. I was thinking it was very out of date and I needed to kinda upgrade myself in terms of the business world. I’ve been working in business and marketing for the last 10/12 years, I just wanted to have something a little bit more current and more relevant. That was kind of my reasoning for coming back to do the Masters and to stay within the business world as well like.

(IN) And why Problem based learning?

(Karen) Well to be honest, I kind of chose the course more so on its location. I looked at a few courses in Galway, in Cork and of course in Limerick. As I was doing it part-time, you know Limerick was ideal for me because I was able to come in after work on a Wednesday evening and not have to take any time from work. The whole PBL side of it wasn’t…I suppose you know a driving factor for my choosing the course really. When I arrived on board…then I realised that it was huge part of it. So, it was in that section that unfolded for me but it would’ve been a driving factor initially for my choosing the course. When I think back now though having done the course I remember feeling that it wasn’t so much the masters itself, it was the
exposure to real life companies and the experience you might get from them that attracted me. This experience would help me at promotion time, to get ahead of those at my level at work.

(IN) And when you knew that you were going to be doing a PBL Masters, did you do much research into problem based learning itself?

(Karen) To be honest, I didn't you know. I kinda decided that I was doing the course probably around the August time frame. Everything with a little bit rushed and by the time I came in at September I think I got a landed into it quite quickly like. So, I was pretty much learning as I went along. So you know it all kinda came at the last minute, but I was in it before I got to realise what I was actually doing to be totally truthful.

(IN) And did you feel LIT explained it to you in the first session...as part of introduction?

(Karen) Yes. You know the first couple of lectures that we had...we went through it and it was explained...the structure of it. We got a very good set of notes on it as well and I suppose it was at that point in week 1, week 2 that I started to kinda...to get into it and understand what was involved. I had also spoken to a girl who had done this course a couple of years ago and who now works in LIT. She explained to me that it was...you know very much focused on...say...a real-life scenario and working with companies. So I had known that side of it, so that was interesting for me...and definitely worth doing. But in terms of being shown what was involved in the course it was quite clearly explained. It was quite good, we got to grips with what was involved fairly quickly like...so yes, no problem.

(IN) When you realised this was PBL what were your initial thoughts?

(Karen) I liked the idea of it. I think...you know you can only learn so much from a textbook. It's all very well to sit in a lecture and take notes you know. I found when I came out of my undergrad and I went into the working environment I knew practically nothing really to be totally fair. I mean I know it was a long time ago I might have been younger, a little bit immature going out into the market. But, I think you know the good thing about this is it's not just theory, its taking real life scenarios in businesses that are struggling with whatever. It might be marketing or business development and it's interesting to see how they're trying to approach it. What their issues are...so I suppose for myself when I had been working in industry for so long it's very interesting for me to see how other companies are performing....their challenges and what
are the problems that they're encountering. So it's great. It's a great chance to get other viewpoints and look at other businesses that might be are struggling or whatever. Actually, I thought it was a really good thing to have, yeah, yeah, definitely.

(IN) In PBL…in your experience how would you describe the role played by the Lecturer?

(Karen) I suppose maybe a facilitator. I find them…kind of…very approachable and you know it's more, more accessible as well you know. I think that was the case in my undergrad. Now, I know I come back a good few years to my undergrad again, but I think the way the lecture is run…it's very… it's on a casual kind of basis this is quite informal. So, you know, the learning is a little bit more open and it's just easier to um….it's easier to communicate I think and to get information and to you know have a dialogue with the lecturer. It's a lot…it's a lot more what's the word I'm looking for…not even informal but just…you know a lot more sort of more comfortable if that makes any sense.

IN) It does indeed. And was that very different from your undergrad experience?

(Karen) Oh God, yeah I think so. But I think as well you know, with an undergrad you know…there would have been 300 plus in the class. You're in a large lecture theatre, somebody at the top of the room. They give the lecturer for an hour or whatever the case may be and you take your notes on and off you go. Then you do whatever you do with that and where with this, you know, there's a lot more ownership for what you're learning. There's a lot more ownership of the knowledge that you gain and it's very much up to the individual whether or not they work at that. So, you know I think looking back on some of the projects that we did I would have read an awful lot more around those areas then I would have done had I been given a set of notes to work with. I think that because you have to investigate it for yourself and in fact if anything you may overread I find. I know different people may vary but you know when something is given to you…its' one thing. But when you're taking ownership for your own learning its' very different. I tended to read a lot about the area you know the different areas in the different topics as they arose so from that I think you'll learn a lot more. But, I certainly learned so much more over the course of the year than I would have learned if I was in a typical lecturer type environment. Now…initially….strangely enough when I came in I was a little disappointed that there wasn't more lecturer type and you know…chalk and talk. A little disappointed there and I suppose I was expecting that but that is my own situation. I hadn’t quite, you know, investigated the
course enough to see what was involved but I was going through it within the month and once we were into the second project and the third project I realised that it’s actually a very good way of learning something. Its’ like there’s a lot of work involved in it too. But it does give you that incentive to take ownership of your own work which I think is very important.

(IN) Do you think that took you a while to learn how this course was different and how the learning was different to previous learning that you had?

(Karen) Yeah, I mean, I think you know I’m looking back on the different projects we had and I think we had about eight projects throughout the course of the year. The first project you know it was strange…it felt a little peculiar at times. It was when you kinda got into the second project and got into the run of things that it kind of dawned…on me anyway… that you know it’s up to yourself to…to bring as much as you can to this. It’s up to you to take what you can from it so you know it’s all about I suppose you know how you structure yourself and how you go about taking in your own learning. So by the time I was into the second or third project it started so kind of click and it made a lot of sense I started to I think appreciate the value that was in it as opposed to traditional will say based learning if I can say traditional based learning by project two or three I figure it out this is definitely a good way to approach it and a more interesting way to approach it as well.

(IN) Do you think your peers shared that view as well?

(Karen) Some…um…you know. The group work then is something I suppose…it’s a little different, it can be very challenging at times to say the very least. I suppose it depends on the dynamic of the group, different people have different roles. Some people are more laid back, others are a little bit more towards the driving side. I myself would be towards the driving side, but if I meet you in a group of people who are kind of…say…fairly strong minded, I will tend to not take a backseat. But you know, you go along with the group as well. But the thing about group work is that it can be challenging, it can be very tough. Sometimes depending on…on the dynamic of the group…can be really difficult. You’re trying to co-ordinate, I suppose your time with work, trying to co-ordinate your time with everyone else. You know people have their own lives, their children, they have their own stresses and real-world scenarios going on and as the year kind of unfolds different people have different challenges at different times. So, it can be can be very, very
difficult. Then again that is the nature of group work. It's the nature of the work environment, it's the nature
of how teams perform and but definitely...definitely one of the biggest challenges. The PBL process itself,
I would say fantatic the group work that accompanies it is the challenging aspect for me.

(IN) And did group work get easier as the year progressed?

(Karen) I think people get into a rhythm and they get to understand what their own strengths and
weaknesses are. Also, you know what different people have different things they can bring to a team, so
once you can understand what that is, you know it can get easier. But as the groups mix-up there's always
going to be...a...I suppose conflicts with different people or conflicts with different personalities. So it can
get easy, but it can get difficult again, so it doesn't necessarily iron out and become easier as the year
progresses. It does go up and down. But I think you know each person probably learns a bit better how to
manage themselves better and to play to their own strengths and how to kind of structure it. So that it's not
as exhausting as it can be. I find it can be absolutely exhausting, group work you know, the big thing about
it is the collaboration between people is more time consuming than the actual project itself and that can be
very frustrating.

(IN) Did you play a particular role within the group typically.

(Karen) Depending on the group. Back at the beginning my first group were very strong-minded characters
and I think you know that's a small bit intimidating initially. Then I got into the second group and the third
group but as we progressed it kind of got easier. The role kind of varies depending on the group’s dynamic,
like I suppose, one of these people might like to get things done and getting done quickly and just move on
to the next thing and other people might be a bit more relaxed and happy to use the time that they are given
for the project. Where I liked to spend the last couple of days, you know, just tying it together, making sure
that its perfect. So, I would have a bit of a driver role in me but then I have been in groups where I have
had other people who were similar to myself. I feel in that scenario then you don't have to drive on as hard
because you can relax a little bit. You can take, not a back-seat role exactly, but you feel less pressure. It
feels like, you know, you can get into a group that has good dynamics. It can be really good, I can be great,
I can you can get a great project done and it can be you know really...really good. But, then I suppose on
the on the flip side of that then it's not always that way...such is life.
How do you describe how PBL was assessed…how did we assess the work that you and your group or you as an individual submitted?

Yeah, yeah, so I mean I suppose the thing about that is I found that you know, a project might be on going and you may have somebody who is working extremely hard on the project. You may have another person who won't be working as hard on it and the only problem I find with this at the end result of course everybody gets the same result. We did have a scenario throughout the course of the first year, just to draw on an example. Not mention any names or anything, but you know where we had a group and we had a group of three and one person in particular was incredibly good in the subject matter. He did an awful lot of work on it and a lot of research and another individual in the group wouldn't have done the same amount. They just wouldn't have been as strong in that particular area. We found obviously that the report we submitted is a group report, we all get the same result and that's fine. But then we had an individual presentation to follow on from the report and the person who had done all the work, who I felt should have got the credit didn't you know, do as well in the presentation. This person overall come out with a less grade, now it was only slightly less but I think you know it was very dissatisfying.

Due to the persons presentation skills?

Somewhat…the presentation skills were quite strong but I think the individual who hadn't put so much work in was a lot better at presentations and therefore managed to steal the show at the end. Despite having less input in throughout the course of the project and I think that's a very frustrating for sure…yeah definitely like.

OK. How would you feel as a student if you could have a say over your own grade? If you could say to yourself that I deserve a 2.1 or a 1.1 for that particular project. So, if you had a certain amount of control of your own grade?

That's a strange question. I can't even imagine that you'd let people do that. Obviously people will always feel I put more work in and then they give themselves a higher grade. Particularly, if there was a scenario where you're on the cusp of a grade. But I think, yeah I think we all feel we deserve more than we get.
(IN) You as a learner how would you react to this?

(Karen) The whole concept seems alien to me actually to even do that...it does...it does.

(IN) Do you think it would work?

(Karen) No I don't actually. I actually don't know...no I think it could cause a lot of trouble and people would probably...possibly abuse it somewhat I think ya.

(IN) What about a situation where you could have a say over other group members, their grade. Not fully now but say a proportion of them?

(Karen) Ya, there might have been a couple of Instances over the course of the year where things were not going so well and you would love that. To have had that opportunity but I think that would have been more out of the heat of the moment. So ya, it would be difficult as well though. You know, you would have to be anonymous obviously, but even at that I don't know how comfortable I'd be with that either. I don't think I'd like my peers to be grading me and I'm not sure I'd like to grade them either because I think you know you may work with someone in a project and that relationship may not go the best. You may already have formatted an opinion of what you think of that person. In what you think about that persons work and then when you meet them on the next project that kind of opinion is already there. It's hard to...to push beyond that and to change...that's quite challenging. I think if you were...you know impacting on their grades you may be starting on a back foot before the second project. Before you even get off to a start I think possibly. So, yeah I'm not sure.

(IN) Its' more trouble than its worth?

(Karen) I think so...I think so yeah.

(IN) And do you think that we could change anything in terms of assessment and how students are assessed in the PBL programme?

(Karen) Perhaps, I suppose you know, the lecturer spends quite a bit of time with the students throughout the course of a project...like a project goes on for about a month. So you meet with a lecturer maybe three or four or five times throughout that period. And in some cases I think maybe the lecturer has a feeling or a
sense of like who's working on a project. Who's doing what and who's working hard and you know, I think it might be nice rather than everyone getting the exact same grade at the end of that if even if I was to a small percentage you know. If the lecturer could kind of somehow in his knowledge or her knowledge of working with the groups knew that one particular individual did more or less. If they were rewarded in that way or not rewarded in that way. If someone doesn't get the same thing because it's...it's an ideal scenario for people to like they can hide if they want they can come in and they can have the handiest year ever or they can bust their guts and kill themselves with stress and you know there are two polar opposites but I've seen both sides.

(IN) So if the lecturer is having greater insight.

(Karen) Somewhat ya. Well...it's just that we all know that if we want to get the high grades we should kind of tow the line a little and give them what they want. A bit like we were back at school and the teacher is the boss and there's no real getting around that. Now I wouldn't say that we felt this all the time, just sometimes.

(IN) Would you feel that students peer reviewing their own groups wouldn't necessarily work well?

(Karen) Ya, I think that's true. students can see themselves on the ground who is doing what and who isn't but how fair are students going to be to one another I wonder. You know it's the whole bias thing would be difficult as well and I'm just going for personal experience. If I've had a bad example or a bad time scenario with somebody in a project and I meet them again further down the line it's very, very hard not to carry that baggage with you. Before you get into the project you are already kind of anticipating how it will go when you are already preconceiving how the problems may be. It's hard to wipe the slate clean and kind of start as if from fresh again. So, I think you know because of that. If it was me, I might be giving an unfair justification before the project even starts off. I would find that difficult.

(IN) How would you describe your level of engagement with the programme?

(Karen) With the program in in terms of with the group work or in terms of with the lecturer or of the whole thing itself?

(IN) The whole thing?
(Karen) I would say quite good. I'm very interested in it and I'm very interested in the projects we get as well. I found what we have received so far this year have been very challenging projects and really, really good and not by any means easy. So I think you know like I know I do like to get stuck in...really, really get stuck in at the early stages as well. Just to scope it out and see what's going on and I suppose if anything I might tend to overread something and tend to kind of get caught up.

(IN) Why do you think that is?

(Karen) I suppose as you're trying to...kind of...understand the direction in which the project is going and I think as well the group may decide week two "we're going on a particular path" and by the time week three comes around and somebody may come up with a plan or an idea or something we hadn't foreseen in the initial stages. It will then shift direction really quickly and that can be incredibly frustrating and time consuming and you know you may find by week four your reverting back towards where you had initially gone. So it does tend to take the different stages and that requires an awful lot of time, is incredibly time consuming. It is incredibly time consuming to find that the time that's needed to do research and to spend the time online and in the collaborative stage with the groups that's incredibly time consuming. So from an engagement point of view, I think you have no choice but to engage you know, because you're going to have different groups and different meetings set up WhatsApp's. The phone will be going off 20 times a day while you were at work and you know maybe your team members have a chance to look at something online and they're collaborating and you're at work. You see you have 30,40 messages, you're thinking "Oh my God". You get home...then you start sending messages and they have finished for the evening it can be tough.

(IN) Would you prefer to do the project by yourself?

(Karen) Oh, sometimes yes. Sometimes, I just want to do this on my own...I just...and we've had two projects in a row now and it's...it's been great. But then to be honest that's a short sighted way of looking at it too. I mean that's not how the world works, that's not how you know...business works. That's not how companies work and you do need to learn to work with others and it's very much part of learning about yourself as much as about the actual subject matter itself. There were some projects where I would have preferred to have worked on my own but then there were other projects where I actually really enjoyed the
collaboration. It’s all about really… I suppose the mix of the team and how you start off. You can start off with an excellent dynamic and I can go really well and likewise then you know they can go not so well, but we all have the same experiences.

(IN) During a project when the lecturer gives you feedback on work that you have carried out, if you felt that you wanted to go on an alternative route, do you feel you can do that?

(Karen) Yes, looking back on what we have done…now you know…we've had many cases where the direction in which we were going has changed and we may be on a particular path and you know we may get feedback that's "no guys - I think you should look at this". We go away and think about it and you know we are mindful that we don't have to do that and it's is never imposed on us to do that which is good. You know, as a lecturer you're giving direction, your giving advice. Then I suppose once it's given, it's up to you to take it if you wish or to carry on. But to be honest, more often than not we have implemented the advice. They are watching us all the time anyway. Maybe not in a total approach but we may have taken parts of it, implemented it with our own…with our own thinking as well. To make it better, but we don't feel...I don't think we feel the onus or the pressure to take on board the suggestions of the tutor over and above what you feel is right yourself for the project that's not there…which is good. At least I don't think we ever did but then again we may be doing it subconsciously, particularly if grades are important to you.

(IN) And have you ever said “no” to a Lecturer in terms of directions they are giving you and said “no, no, I want to go a different way”?

(Karen) Not so much, you know…black and white in that regard. But, there may be certain areas that…um…you know…you may be asked to kind of speak more on, or do more of, and in some cases it may be down to time constraints to make…um…maybe at week 3 of a 4 week project and you might find…ok…due to a time constraint we actually can't. We just have to work with what we have and it hasn't been a down right no, in that sense. That it's been more kind of…we will implement some of it but not all of it. Because it's either time constrained or because we feel that you know we can't justify doing the project at this stage and you know it's um it's an open enough, discussion environment where you can do that I think relatively comfortably which is great. so nothing is imposed on you.
(IN) Very good. Do you think PBL fits with how you learn best as a person.

(Karen) Oh that’s a good question. Am…what I like about it is, I think is…the learning by doing and you do actually learn quite a lot from your co-workers you know. Simple things like how to collaborate effectively. Google docs, I have never used that when I came on board here and the guys were setting up a Google Docs…Google Drive. I thought “Oh my goodness” what is that…a live document. And now I think there is no other way to work in teams…you know. So you do learn…you do learn a lot by doing. You do learn a lot from each other. You learn a lot about yourself as well, as a person and how you work within teams.

(IN) And what did you learn about yourself?

(Karen) I learnt that I was impatient for sure. I like to get things rolling immediately. I’d like to get something done earlier rather than later and but at the same time…you have learnt to be mindful. That you know people are on different schedules and you know not everyone can come online between 6pm and 8pm at night. Maybe 1 o’clock in the day, that suits them best. So I’ve learnt to be kind of…be more patient with that. Because the only thing about that is you feel like you’re on the clock all the time. Because you know…you’re trying to switch off from it. But you can’t because others are working at different times and they may feel the same as well and for that reason you feeling it sometimes a project never ends. It takes up your entire day even when you’re working, when you’re sleeping, is constantly popping up with messages. But learning to manage that is definitely a huge challenge…absolutely. At the start it was a nightmare, I think you know when you're at work and you'll see all this collaborator things going on. Your phone is beeping it's very hard to turn it on its face and continue like you're busy at work you haven't time to do it. You can't be doing that but I think there's guilt as well strangely enough you feel that your team are working in that you're not contributing at that point in time and the more messages that buildup. Strangely enough, you feel ok. I am being left behind…you know and not contributing my workload but then when you go away in the evening time and I log in between the 6 and 9 or 9 and whatever it may be and you get down to it. You're putting your time in at that stage so I think you know as you get to know the people you're working with and as people get to trust each other that even though you're not online 24/7 or during the day. That you will put your work in that evening and once I feel that people know that, I'm going to do that and trust me to do that, then you can be more relaxed about it. But at the initial stages, it is a small bit
terrifying because it is constant. But that's all about managing yourself and your perceptions your time and it's not...it's definitely not easy no.

(IN) Do you feel problem based learning is for everybody?

(Karen) I'd say not no.

(IN) Who do you feel it suits best?

(Karen) Am I think, I think the quieter you are, I think you know...people who are more introverted people who are you know...I'm quiet into myself may struggle with it. You know, if you have someone who is quiet in the group, there is a tendency that they may not speak up. They can get left behind of if they are not comfortable to voice their opinion or are comfortable arguing their case. I think it will be very challenging and very daunting and I think it could be a lonely place. If you know you're a person who isn't...who doesn't have strong communication skills. Yeah, somebody in that scenario, I think it will be really like...I'm just thinking of the groups I have worked with and to be fair anyone who I have worked with has been very forthcoming with what I have to say and everyone is well able to speak up and you know say their piece ok. But I think you do need to have a certain amount of oomph to be able to, you know, work in the team environment and to put your opinion forward and to argue it and to be able to contribute. So that you're not left behind, because projects can take on a life of their own and you know you have to feel that you can keep up with it. That's good too...you know that pushes you beyond your comfort zone and pushes you to learn more and it is good in that regard.

(IN) Do you feel it is age related?

(Karen) No, definitely, definitely not, I mean.

(IN) Do you think that PBL could work with undergrads?

(Karen) Absolutely. No, age is definitely not a factor. It's nothing at all to do with it. Actually it is really good to have different age groups within a group and I find it works quite well. It can be a very good balancing act in terms of maturity and in terms of you know a few points and experiences the different people have. No, I think it's very effective...the different ages.
(IN) Would you prefer as a student to be able to pick the members of your group?

(Karen) Yes of course. We will all say “yes”. Am ya…I mean you know, but that's not going to work because everyone is going to like, you know, who is going to work with who or whatever. But there are cases when you would like to pick the group that you feel you can work particularly well within. You would be hopeful that you would meet those people again because you know you can work well with them and you know there is a bias there for sure.

(IN) And would you like as a student that level of power?

(Karen) I guess I would, but I can't see how it could be facilitated to be fair. You know no more than the grading, I just can't see how you could facilitate it but ya of course you would like it. Definitely. We hear all the time that the lecturers monitor each person's work during the project. Which is a bit much at times. The playing field is never level. It could well be all in our heads you know. But it is the feeling that the lecturers call the shots and possess the power over us, that's the real thing.

(IN) How could we alter the programme that might make it work best? Imagine if you could wave a magic wand?

(Karen) I know I am thinking out loud now. The greatest challenge for me really is…is the time…the time that is involved in the project, you know. I feel like it is a part-time course but it does feel like a full-time workload. So my biggest problem really is the time that is required to be put into it. Now we do…we spend our class working on projects as well which is good you know. To spend your hours in college and lecturers are fair to give you that space and time to do that. I'm not sure how you could I just still feel like I spend a lot of time and I think a lot of people in the course are the same. That we spend a lot of our time on it as well. So time…for me just to fit the time. To find the time to do all of this and that. I won't say the workload, because you know, very seldom do projects overlap. But I am mindful of next year when I have a thesis and projects in and then I will feel it is overlapping and I can imagine I will a have a huge problem with time then as well. That's my biggest thing really like…I like the way that you've got it from companies coming in few different challenges that's definitely really valuable. I think you learn an awful lot so that's great to see
how that works and to present to those. I like the presentation, so we have to give you… I mean they were a little bit daunting at the start but it's been very useful skill to have.

(IN) Did you feel that you were strong in that area to begin with?

(Karen) Not particularly no. I would have done some presentations at work but I still felt, I suppose it is all about the subject matter and how comfortable you are with it. As the year progressed, I definitely got a lot more comfortable, a lot less worried and a lot less anxious about you know, the presentation. I think you know, you just, you just kinda learn yourself how to manage them that bit better like so it's very, very, very useful. So that's definitely a plus in the course and I'm glad we have had those and they've been daunting at the beginning but so worthwhile but other improvements? It's difficult to say, I mean, its set up quite well to be fair and you know the group work is challenging but I can see the merits in it. The timing thing is my biggest crook there.

(IN) Just managing the time?

(Karen) Managing the time and trying to see if there's any way of just narrowing the… the amount, the amount of your day that you have to spend researching and looking at projects because it could be 4 to 5 hours sometimes.

(IN) One final question Vanessa. Do you feel that PBL has Changed you in anyway?

(Karen) A little bit actually I think it opens your eyes. I think it opens your eyes to what kind of character you are yourself. Sometimes I feel like that all right… that you're going a bit crazy you know. Am I mad and I do know that I can go on…. and on… my goodness. At times, yeah it definitely opens you up to reviewing yourself as a person. How you work in a team? I think that's a good thing, that's definitely a good thing. I think of something you definitely need in the work environment and going forward into life you need to be able to have to work better. As the year progressed I think you know you just get a little bit more I won't say relaxed. But, you just tried to kind of tune in more of those around you and you know. Try and go with the flow somewhere but it's not always easy.

(IN) Could you think of a highlight and a lowlight that you went through?
Ya, I suppose highlights would be following every presentation you know you might have spent a month on a project. You have worked day and night particularly the week before it’s due because there’s a million things to do at the very final week no matter how soon you start. So, the highlight for me would be when your handing in a project you do a presentation and you're up there with your group and the presentation goes well and you come out and you feel good. You feel a sense of relief, you feel a sense of accomplishment and you’re feeling ok. I have learned a lot here genuinely and you feel really well, really good coming out of that it’s a nice feeling. So, I've had a feeling a few times over the course of the year. Actually over different projects you know, as they were handed in the presentation is done and you walk out and it’s just a lovely feeling. As regards lowlights, then when you're sitting at the kitchen table on Saturday night at 10:30 pm and you've got so much to do and nobody else is online or there's no sign of them…or…you know you feel the whole thing is just gone off in the wrong direction and it's just…it’s never going to end. I think that's extremely low which can turn into that sense of relief when its handed in. Then it turns out well despite the low that you have been feeling prior to the project been handed in so…yeah, yeah, yeah.

IN) You mentioned a lot about the group work, you had positives and negatives. How do you know who's in charge? In the lecture hall, how do you know who's in charge of the group?

(Karen) You don't. I mean you get a gut feeling when you sit down with a group of four people that somebody's going to like…you know digging straight away and some guys try going to start dividing out the work. But, I think that could be at the initial stages. But as you progress into the project the role often shifts and that person doesn't necessarily drive through to the end. That somebody else steps up, like you know, I've had projects now where one person will start out…who looks like they're going to be the leader. But in fact, somebody else may step up to actually become the leader or even jointly as you know, so it does take twists and turns. It is never as clear cut as you imagine it will be. So yeah, there's…and maybe if we had a more structured meeting place and we had sat down and say "right you know, I’m going to drive this on, be your leader and you can be whatever". But we don't mean really do that, we don't set the roles as “clearly”. Now I know the PBL process is about doing that and we haven't in our groups. People naturally take a
certain role. I find they don't always follow that role right through to the end it can vary and change throughout the project.

(IN) Ya deciding at the start, that can be very artificial at times.

(Karen) Ya.

(IN) And may not suit peoples personalities.

(Karen) Exactly

(IN) Look, I have thrown an awful lot of questions at you. Is there anything that you’d feel you would like to add, anything you feel that has been left out in any way?

(Karen) Am, nothing left out. But I suppose to recap or give you a few sentences about how I feel after the year. You know, it's been I think, it's been a really good year. I've learnt a hell of a lot, I've learnt a lot more this year than I would have done if I have been lectured that is for certain. Because I suppose I done a lot of research online. I'm taking ownership of my own learning I've learnt a lot from the groups. I think I've learnt a lot about myself as well but having said that, you know I think you know...just different companies coming in as well and the challenges that they present is just really worthwhile stuff. All the different presentations that we've done. You know, the whole structure of it, you just you have more content I think at the end of the year that you would and more learning than you would definitely than the traditional way there's no doubt about that.

(IN) Ok I'd like to thank you very much for the interview.
Appendix 7 – Sample Interview Transcript – anonymized

Interview 10

Student Name: “Michelle”

Interviewer: Ronan O’Brien

Date: 24.08.17

Time: 11:50am

Duration: 41 mins 8 secs

(IN) So “Michelle”, thank you for agreeing to do the interview with me. The interview itself should last about 45, 50 minutes. I'll go through a kind of a list of questions with do with the introduction kind of you to PBL. I'll go through some kind of roles that are typical within problem based learning and in with the Masters programs in general. I'll go through your experience of the assessment of how you find your masters and at the end I just talk about over all reflections in the overall summary to it. If you are unhappy with any question that you experience as part of the interview, we can stop the interview at any point, I can remove that question and if you prefer that your name wasn't used as part of the overall thesis, I can certainly put in an artificial name so that your anonymity is totally protected. Also this file will securely stored so the greater public won't have access to the information that that that you're sharing here with me today. So, thanks again for agreeing to take part. I suppose the first question I have is….would you mind describing your educational journey to date and how you came to join the course?

(Michelle) Ah well, I would have done my undergrad in Dublin, a BBs in Business and because I've come from a background of self-employed parents I always wanted to go to do a Masters. So that I was…I would be educated to the level that I saw and that I wanted to be. So I was looking around and I am from Limerick originally and because I was up in Dublin I wanted to be back down home. I looked into LIT and UL and I found that this new exciting course was happening in LIT and it was being taught through PBL which I suppose triggered something with me. That it would be a little bit more exciting given that I will be able to
work with companies and get very hands-on experience and that would have been something that was hugely of interest to me. Given that I came from a self-employed background and I wanted to get as much experience in business as I possibly could...in the hope that I might take over the parents business eventually.

(IN) And when you looked at other masters programs which would not necessarily have been problem based learning, what were your views on those programs?

(Michelle) There were some very interesting programs definitely. The Masters offering has changed hugely in the last few years, even from my brothers time and he would have gone before me. I found that the offering is so varied now and there's a lot of them. But I suppose the lot of them were just so you know...what they say is "chalk and talk right". There just literally the lecturer is standing there and talking at me and I just felt that I had done that so I wanted something a little bit more challenging, a little bit more exciting and when I spoke to people in LIT about the program. It seemed like it was just a perfect fit given that I would be working for companies, you know, and getting as much as hands on exposure/experience as I possibly could.

(IN) Very good. What were your initials thoughts when you heard about PBL, what did you think it involved and did you feel that you were adequately prepared to do a problem based learning course. Had you research much into PBL?

(Michelle) I suppose from phone calls and maybe looking up the website I didn't have a huge amount of research done only I suppose when I spoke to a few people they said that I'd be given a problem, I'll be then tasked with working on the problem and trying to come up with a solution within a group and then I've to come up with the outcome and present the outcome back to the company. I suppose in my head all along...is that thing as an opportunity to make myself known to different companies in the mid-West and to give me different exposure to different types of businesses. Because I would have been very...my experience to date has been in one area so I wanted to add varied experience. Sorry, what was the other part of the question?
Am what did you think it involved but you have answered that. I suppose did you feel appropriately prepared?

Michelle I suppose not really, no. Because I think at the end of the day, I thought it was going to be me working on something and you know inevitably ended up being a group working on something but at the end of the day we are working for the lecturer it wasn't us actually working for the company. I thought we would have far more exposure to a company, but also you know it ended up being a little bit more of the whole student-lecturer relationship where I thought it would be more of facilitation and experience. It was more of the traditional kind of lecturing experience that I would be used to from college.

So you would prefer more access to…more involvement with the actual client company?

Yeah, I think so. Because, at the end of the day when you are working with the client you want to actually…you know…you end up going off down these paths, these roads, as part of research and you're trying to work on the problem when you end up going off on a tangent and then if it's not the right tangent you could have wasted 2 weeks and the lecturers will come in and you know, we're all trying to say…at the end of the day the lecturer is grading you. You want to make sure that he is happy or she is happy, but at the same time we have to make sure the company is happy. Whereas, we should have been making sure the company was happy and the lecturer should been the person that was just supporting and behind us and working more with the company. I felt like it was…the company came in and then we didn't see them again for 6 or 8 weeks. We worked for the lecturer in those 6 weeks and then we present what we thought what the company wanted. But really was it at the end of the day because 6 weeks is a long time frame in the companies life and what they require…you know.

Sure. If its ok I might just retouch on that later? When you joined the PBL course, did you feel that the staff explained PBL to you in the first couple of classes?

Well we had an induction week. I don't think it was a full week, but we had a number of Induction sessions into PBL. I think the focus seemed to be a bit more on our writing styles…on our critical thinking and things like that and then I suppose a little bit on group dynamics. But we went through all the different steps with PBL and we had that little chart and they gave us out a booklet. But I don't think…
think anything really is going to prepare you for what the first problem is going to be like. Because the first problem…so it was a minefield because really we were handed this and before…I suppose you get a project spec back in college. You're in a group it's very different because it nearly tells you…you know the steps you have to take within the project spec. Whereas this is…you know a couple of lines of what the problem the company is facing and then you're meant to just figure that out. And maybe you know…as in…I don't know…maybe it was that we didn't do enough research or researched in the wrong direction but again, I suppose, maybe a little bit more interaction with the company v's different lecturers telling us the little bit of different things what to do might have been out of the helpful to get us from the first step on the ladder, you know.

(IN) So, how would you describe the role of the lecturer in PBL and what key words might you use to describe this person?

(Michelle) Am…key words. I suppose I would have thought that they would have been a facilitator and but my understanding of facilitator is somebody who comes in and actually facilitates the group and makes sure that everyone within the group is…is working in the right path. But at the same time isn't the…what's the word… isn't the person who is not…power…the person that comes in to tell us what to do when we could, we will be working on something and we've been writing up something but we'd be very aware to the fact that a lecturer was coming so we had to make sure we…our writing styles was right or our critical thinking was evident. That we're actually following something…we couldn't really think outside the box…a small bit…for the client because we wanted to make sure that the lecturer was happy. So at the end of the day “power” is the right word and they have the power and you know, we were working for them as opposed to working for the company. I suppose that will be other words that describe them…as it depends as well on the type of lecturer that came in. Maybe some might be a little bit more enthusiastic about how we would approach it and end up telling us the path we had to take as opposed to us guiding it for ourselves. Or someone will come in and just…I suppose…you know…be asking probing questions. Maybe probe us in a way that we thought was the right way and then we'd go off on that tangent and then again wouldn't be the right way. So in a way I suppose it was the lecturer that really did dictate the way that we work and how we manage the problem. Whereas, I thought the lecturer was going to be sitting behind us in a sense…if you
could picture it and we be working and then they'd guide us in the more...you know like work facilitation as opposed to just telling us that the right way...you know or what way we should be doing it...you know.

(IN) So you feel like they kind of dictated or directed a little bit too much?

(Michelle) Yeah definitely. Which is unfortunate. But at the same time maybe we needed it, but I would have liked more direction from a company vs the lecturer. I felt that's where the PBL thing...where I felt PBL that I will be working for the company vs literally trying to get the good grade and then as well like...people within the group will be talking the talk for the lecturer and they're not walking the walk when the lecture was gone. So, that was probably very frustrating

(IN) Ok, ok, did you ever feel that as a student or as a group working in an assignment that you could go down a different path rather than adopt a path that the lecturer might steer you towards?

(Michelle) Well, I suppose we would have tried and there was strong personalities within different groups and I have a strong personality and in a sense at the end of the day, we always have to come back with our project together and if it all didn't make sense and we weren't singing off the same hymn sheet... it wouldn't work. If we were put into different groups which again was controlled by the lecturer which I probably would have preferred to be a little bit more controlled or influenced by the students in the group as opposed to the lecturer deciding who I was with all the time. So when there was a stronger personality we kind of had to go with the stronger personality because it was very difficult not to. But at the end they did introduce the little bit more of an individual role, an element into the assignment and once that was there was that was introduced it did help the little bit of a kind of trying to think for ourselves a smaller which definitely helped.

(IN) Do you think your lecturers could have done more to become more involved?

(Michelle) I would have thought that the PBL experience would allow us as students to dictate...to be the dictators as opposed to the lecturers. If you can say that...but I would say that you know if I would have said that PBL was so flexible that it would have allowed the situation to happen that we could have control it ourselves and manage the situation. I would have said that's what PBL was.

(IN) How do you think the lecturers displayed control or displayed authority?
(Michelle) I suppose you know we kind of sit there waiting for them to come in and into the session and we're all anxiously working on a different elements of a report and was trying to put it together and then we're waiting for this person to come to tell us whether I'm right or wrong and then they come in and you know I suppose we want that from them in a sense because we're sitting there waiting for it. But at the same time then they came in and they might have thought of the problem in a different way, in the previous week and they might have thought of something else or might want to press up on something that they think is important for the company they just spoken to the company about something and now they brought us another vein or whatever so it ends up being they come in and talk at us a bit. As opposed to us now and then we might…we do obviously have a huge amount of opportunity to talk to ourselves. But it's just that it ends up then, you know, it all just get a little bit confused and I suppose the power struggle between the group dynamic and lecturer and the lecturer trying to control the group's dynamic ends up as well causing a little bit of…some people end up just sitting back just because there's no point in trying to get into the muddle of all of that as well, you know.

(IN) And how would you describe your role as a student, are there key words that you might use?

(Michelle) I suppose I would describe myself as very enthusiastic and motivated towards the project. My main motivator in all of this was to get huge experience with different companies and really learn from different companies and learn about different Industries. So, that again I can bring it into my family business and to expand it but also to expand my own CV. When I was in Dublin, I would be working on projects but we never got the opportunity to work on live projects. So I thought that this was going to be very exciting and well it was I supposed to just I thought we have definitely a lot more exposure, the company would have guided us vs the lecturer telling us.

(IN) So too much lecturer driven?

(Michelle) Ya…ya.

(IN) Ok, ok fair enough. And did this change at all over the course of your year or was it the same all the way through?
(Michelle) I would have said it started off a little bit more that our understanding of getting to grips of PBL. We wanted the advice from the lecturer so we wanted the lecturers to be very involved with, you know, how do we do this...to know what step going through the PBL process...in the stages of the PBL process. We wanted a bit more guidance and then I suppose once one or two problems are started to happen, we should have been nearly let a little bit go a bit more and we weren't. So we were still very controlled by you know making sure that we were ticking all the boxes and what we in or are we getting all the learning outcomes and it was a little bit too controlled by...you know have you reached all the learning outcomes that are written on the problem spec vs actually, you know, what the company, what the company wants, you know.

(IN) Ok, so more client company focused rather than lecturer demands. Ok fair enough.

HC) But, like it's hard for the lecturer don't get me wrong. The lecturers are very good and they work very hard and they are very enthusiastic about it. But it is...I'm sure a hard dynamic coming into groups of people...fighting in a group. You know, I'm a mature student so I didn't...I suppose I don't get involved in that kind of element of it as much. I could take the pettiness out of the fights. But like there is a lot of petty fighting and squabbling going on so it's very hard for the lecturer to come in and manage that dynamic also, you know.

(IN) Why do you think that is happening, that there are so many squabbles?

(Michelle) I thought maybe just young people not managing groups and never been put into groups enough. Maybe you're not understanding, like, at the end of the day when you go into industry you work in a group and everyone has to work in a group and you have to learn how to manage different groups and different people than what you might like, what they don't like and how to motivate them. So if you are not going to sit back and understand about the group before you tackle it you know you're not going anywhere. And I suppose younger, maybe, people weren't able to do that and couldn't control that and ended up just squabbling...you now...but then you know its probably just maybe age and also experience of working in groups. And I do think that at an undergrad level there isn't enough group work because of the end of the day that's what you do...you work as a team.
And you as a mature student with the recent graduates, did that make it easier for you as a mature student in the group?

(Michelle) It did and it didn't. As in...it did for me because I was able to sit back and kind of...you know understand a little bit more of the group dynamic and how group dynamics will affect the overall outcome if I don't make sure that this is plain sailing as much as possible. But it was saying as well, you know, the youngest you can sort of...me as being a little bit older and maybe...you know was I a bit arrogant and how I dealt with them initially possibly... We got on very well as a group and we, overall, we had a good group experience. We did enjoy it, you know and the year was enjoyable on a friendship basis.

(IN) How would you describe how the work that you...that you put in over the course of the year, how do you feel that was assessed?

(Michelle) I suppose the different types of assessments that we were given were very good. We'd a broad type of assessment so we would either do reports or poster boards or presentations and all different types of methods of assessment which was exciting and different. We did a lot of calendars alright which were a little bit harder to be creative all the time in that. So they have their merits and good to do I think. I'll definitely use them in the future, but I suppose at the end of the day when your handing in something and you go into the boardroom for your final presentation to the company you're standing there...you're wondering who's the presentation for. Is it for the lecturer, is it for the company and have I ticked everyone's box or do I just need to tick the lecturers box because at the end of the day that's my grade and in one or two occasions we definitely went in just for the lecturer. Because we really felt that if we didn't put what he wants on the page...she wanted on the page, we weren't going to get the grade and that was more important to us. Obviously, that's our careers at the end of the day you know.

(IN) It's more about the grade award...about the lecturer then how useful is the company might find the work that you present?

(Michelle) Ya, I suppose ultimately. So the lecturer is grading it, the company didn't grade it at all. They weren't necessarily going to say they were completely unhappy with what we presented to them so once we realised that, I suppose different companies have different personalities within the company that we are
dealing with. So you know where we felt that we needed to do something for the lecturer we did something for the lecturer. We weren't working for the company you know, which is unfortunate because of the end of the day you would like to be doing it for the company vs doing it for the lecturers. That's why I would have signed onto the course, you know, that's just the age old student-lecturer relationship, that you have to please the piper you know.

(IN) Sure. For the work that you put it into it, did you feel that you were awarded the correct grade?

(Michelle) No, I did ya. No it was. because of a group dynamic or two this definitely would have changed, would have made the grade go a little bit lower with someone not contributing enough and the people having to pick up the slack and things like that…that would have affected the overall grade. But at the same time, then yeah, I got one or two good groups and my grades were good in those groups. So you know and it's what I would have seen myself as one of the harder workers in all the groups that I was in…so you know…one or two times definitely was a bit unfair because I was trying to pick up the slack for everyone else and then obviously you're grade can't compete with other groups if you are working solo, when you should have 3 people working for you, you know.

(IN) Sure. If you put in a 70% percentage effort do you feel that as you were giving 70% reward when it comes to the end results?

(Michelle) Not really. On occasions definitely we got the right results. In some other projects then I think the result was a little unfair given the fact that I had addressed a few group dynamic issues and again the lecturer kind of, you know, put that on to us to resolve which is, you know, which is fair enough. Because of the end of the day you have to resolve your own issues, but it did slow us down…it did affect the overall grade.

(IN) Let's say you could use peer assessment? That you could not control 100% of the grade, but you could give a certain percent to the people in the group that you were working, how do you think that would be received would you like a system like that?

(Michelle) I think that as a mature student I would have liked it…but I think only if I was working with people of the same mindset. As I think it's very hard to do that where the maturity level of some people when they
wouldn't have been able for it or their friends would have got the results or you know that they couldn't actually see the benefit of doing this. So for me I would say I would like it personally because I think it would, I think, you know, in an industry again, you have to give your colleagues and your friends feedback and you have to be able to take it if you are giving it. So I think it would be a good way of doing it and as well it might allow the lecturer then to facilitate a little bit more as opposed to them being the authority and everything and us working for them you know.

(IN) And let's say you had the power to select your own group members?

(Michelle) Oh I would love that. Yes, because you can tell at an early stage, within a couple of hour's as to who's going to be a worker or not and then and who's a talker and I think then even after one problem you really would start to get a grip on who's actually going to be a benefit to you the most, you know. You always have to put good people around you, people that are better than you, so if you could pick who was better than you, then of course that is going to affect your overall grade.

(IN) What about if you could pick the company, work directly for the company with very little lecturer involvement?

(Michelle) Ya, I think that would work. I think of the experience that you get. Now, maybe for companies you know, they might have a few hiccups along the road. It might be a bit more difficult for them but absolutely, I mean, the experience that we would get and the opportunities that we would get to really explore different schools of thought and different avenues of, I supposed, to know if your taking a different strategy. If we could create a strategic plan for a company and take them step by step through it and for them to help us that would be amazing, you know. That would be something on your CV if you know, you really wouldn't get to do even in industry because by the time you go into industry you are at the bottom. You wouldn't be creating a strategic plan for the company. So if you got to work with senior management and develop a strategic plan in conjunction with them that would be just amazing, you know.

(IN) Am...you know, overall how do you how would you describe your level of engagement with the program?
(Michelle) I think initially it was probably 100% and I was really enthusiastic. I think as the year went on definitely, it definitely, weaned a small bit because again, it just wasn't exactly what I thought it was going to be. And I suppose that whole power struggle between lecturer and student definitely, I suppose, took its toll on the level of engagement that I had. Because I just thought it was going to be a bit more of that we would lead it vs the lecturer leading and it ended up being very lecturer led and lecturer focussed and that it was something that I was looking to go away from and that's why I chose PBL.

(IN) Do you feel that could be due to the fact that you were a mature student or was that the shared experience of the group that you would have work with?

(Michelle) I'd say it was the shared experience. Because you know, when we started out and it was explained what PBL was...we're all very excited to really make our own path and really I suppose to learn by doing in a way. So I suppose then I say...yeah I know the whole group would have felt that because we had this whole idea of what PBL was and then that kind of got smaller and smaller and it became more like the traditional lecturer-student role. And there isn't a huge number in the room so there isn't a huge need for a power struggle that comes between the lecturers to them so they can control its not a control issue we are all adults doing a Master's but it's just it ends up being that you are working for a lecturer more than the company. I suppose I thought I would have more control over my learning experience…the lecturer still runs it.

(IN) What suggestion would you make if you had a magic wand and you could change how the programme is run?

(Michelle) I think if we could have more access to the company. I think if we could bring the companies in on day one, day two or week two, week four and week 6 and really actually work with the company and there were one or two where we work with charities and you really feel like no matter what and give them is going to be worthwhile for them. So if you could really give them something amazing that they were really working in conjunction with you to do it that would be and you know the more exposure you have to a company the better and maybe that is selfish in my part. But it's for me to get experience. I just think that's what it is at the end of the day. It's for us to learn as much as possible and you learn by doing even going into the company's field trips into the company, getting a feel for their space and what it is and what their
culture is maybe even getting a few people for an organisation to talk to vs just one person who might have their own goals and then they bring that back and they haven't communicated properly to us then. Therefore, we look bad because we haven't fulfilled what we were meant to do actually. Definitely far more with the students with companies and I suppose that it is actually facilitation of the lecturers is that they're not dictating the pace and that we don't feel like we're doing it for the grades. That we're not working for the lecturer that is actually that they don't hold the power. That we hold the power I suppose to be honest with you, now like you want to do this and do it right and learn from it and we need the lecturer in order to do that. But we want them to do it in a way that facilitates us and let us grow our minds as opposed to them dictating our minds.

(IN) Ok very interesting. Would you recommend to be a programmer to to a friend?

(Michelle) I would definitely. I think it was a very interesting way of learning. I think it was very exciting. I'm glad I did it and I'm glad I experienced it. I know from friends that did a taught Masters that do you know it was the chalk and talk of sitting down and the power point and death by PowerPoint whatever and that I do you think that you know I learnt more because I had to be because at the end of the day if I was given a problem I read an awful lot more than I would have read in the past of journal articles and trying to figure out things. And my level of critical thinking definitely improved because I have to really try and understand something and I didn't have you know really had to had to figure it out and it was definitely the learning of working with groups and changing group Dynamics and I think one of things if we could change anything in the program I think it would be to dopersonal tests or the colour coding test of the beginning of the year so yeah you know what colour your working with your yellow or your red or wherever you know and then at least you know even for the lecturers it will be really good because they can put the colours together vs ok you know with a list of names are we going to throw together or this one is strong and this one as weak put them together because you she'll pick up the slack for the weak one you know and that's kind of what we felt it was a little bit.

(IN) Maybe if the lecturers did the personality profiling themselves?

(Michelle) Absolutely (laughs) yeah. I think there is plenty of opportunity with it you know maybe going back to the drawing board. But, it's ok you know, what is PBL in making sure that everyone and maybe after you
know the first problem that you go back to PBL again and you figure out are we still following the PBL principles you know as a group and then maybe after the next problem. Maybe doing little checks to make sure we are actually following the steps of PBL as opposed to it becoming like we need an assignment done, let’s do it and get grades in, you know.

(IN) Do you think it has changed you, your PBL experience?

(Michelle) It probably has made me a little bit more aware of people, aware of personalities. It’s probably made me a little bit stronger in that my argument has become a little bit stronger. I would have been a little bit more passive in the past and how I structured an argument would have been a little bit as wishy washy. I wouldn’t have been good at structuring an argument. So now definitely I have much…I understand what I have to do in order to make a clear point and if I want to make a point I need to be well versed in the point and I think that is helped a lot definitely. My confidence as well, I've done good presentations in the boardroom and stood up and been able to just talk about different things and answer questions from companies that you...yeah you don't know exactly what they're going to ask me like that so...no...I did enjoy it

(IN) I suppose I am conscious Michelle that I've asked you lots of questions here, is there anything that you'd like to add that hasn't been asked of you?

(Michelle) Am...let me just think, is there anything I'd like to add so I suppose that you know if you could that you’d work for you know if you could actually maybe say you know when I signed onto the course I signed up to it in June. If you were told maybe the Industries that you were going to work in or the areas. Because we arrived in and we were told, that you know, we were doing strategy and what our subjects were about. But you know what the titles of them wherever you will find you and you know probably with some little bit of research or if I knew the Industries we were going into I would have been asking are you know getting a little bit more feedback into what area is there going to be a little bit more aware of different businesses that might be coming in and on different days and maybe getting problem spec well before a company would come in so we could actually look at it. So we could have our questions for the company as opposed to getting spec and the company arriving at the same time that was very very difficult to manage.
(IN) Did you think you learned from the other students that were in your group as well because you know you learned a certain amount from the lecturer and you know the certain amount kind of but by doing and working on the assignments itself for the company but did you learn from the people within your group?

(Michelle) I did, no I did. There was definitely some people that I would have taken a lot of how they approach different things. A lot of people very creative. I wouldn't be as creative so how they approached it v's somebody who is very methodical and very, very different way of thinking and how they approached a problem. Like it was very interesting to see when we get a problem spec how different people thought and what they read and what they instantly went off doing versus somebody who really thought it out and asked the probing questions and it is very interesting to watch people working. I do enjoy that as to how people actually interact so no definitely learnt and have had from the people in the group like we did enjoy it we had a bit of crack and we enjoyed whole process working together and we would like a while it was very hard and the year was hard but then a masters is supposed to be hard you know. It was a hard year but it was it was good as you know we did it we did enjoy it was a good craic within the group you know.

(IN) Would you do it again?

(Michelle) I…probably yeah. I probably would I think I probably learnt more than what I would have learnt if I was on a taught program definitely. I just would liked a few little tweeks you know, the power struggle between lecturers and student. If I could get rid of that power imbalance, the lecturer having the power, I think it would just it would really make the course so much more…just would be fantastic. To actually feel like you're working for the company. Like you know there are so many programs where you go on co-op for a company I wasn't expecting a co-op placement but I was expecting to actually feel like I worked for a company. I felt like I worked for a lecturer.

(IN) Look Michelle would like to thank you for taking the time today I really appreciate it.
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<tr>
<th>Theme</th>
<th>Initial Theme</th>
<th>Analysis</th>
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Note: The table above represents the analysis of themes and their initial separations. Each row corresponds to a different theme, with columns for analysis and initial theme separation.
### Appendix 8.2 Coding_Lecturer Power Imbalance

<table>
<thead>
<tr>
<th>Coding</th>
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<tbody>
<tr>
<td>Student</td>
<td>Lecturer Power Imbalance</td>
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Frank

Although it was really good that we are working together sometimes we got to a point and then had to wait till we spoke to our lecturer in the meeting we've got the opportunity to do so then we can further further or learning and further our work on the assignment and also says it's definitely was advantageous and that you can we can work together and and find find our own way of doing it I think we still got to a certain point we were that bit afraid to go that bit further and wanted the advice of the lecturer.

Frank

This was all then assessed by a lecturer who decided the grade you achieved either as a group or as an individual, we didn't really have any input into it...

Frank

we always got to a point where we were afraid to go any further and we'll always put forward our ideas and thoughts to our lecturer and where we were and where we needed to go. He would then assist us, but there might be times where we might come out and you might find out that we've actually gone in another direction from our discussion with him. So whether that's a good thing or a bad thing I don't know in that we were trying to find our own way but felt that we could only go so far 'cos we still need the assistance of our lecturers so although it is problem based learning it's seems like we always at some stage ended up going back to our lecturer to see if it's ok and he either gave us the yes or no and lead us to either the route that we were going or might just tell us to verve left and go up another way.

Frank

I think it was more beneficial for us that it was picked externally or randomly. Because if we decided to select our own groups we would have only selected the people that we were comfortable working with and I always would feel myself that it's always beneficial to play outside of your comfort zone sometimes. Because that...of course helps the learning process and you gain more experience by doing that. So, the selection of groups I think it was there for the lecturer to decide rather than us picking them.

Frank

It would be just a bit simpler and easier for a lecturer to decide themselves. But then at the same time then you're looking at the lecturer’s preferable company that maybe they would choose maybe for themselves like you know. So you wonder, you wonder then are the class having the desired interest that they would like to have.

Frank

The one issue there is that the lecturers control the grades so you have to just play the game...you know.
<table>
<thead>
<tr>
<th>Dan</th>
<th>They do play God every so often though and that can be a bit annoying, especially in the first year.</th>
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<tr>
<td>Dan</td>
<td>Frustrating in the sense that, right, you know, we know the lecturer knows the answer and we may be looking for a little bit more guidance right,</td>
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<td>Dan</td>
<td>Not that we know the answers like the lecturers, we don't but we understand the mechanisms of getting to where you need to go and which I believe helped us as students</td>
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<td>Dan</td>
<td>Like if I just think that it's ok now if I keep X happy but at the end of it I know if X is happy the mark tends to be better but I think you to find the balance of this is the direction that I am going in and this is me taking it here</td>
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<tr>
<td>Mary</td>
<td>We were all of the view that the lecturer knew best.</td>
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<tr>
<td>Mary</td>
<td>No, I really wouldn't want to peer review. No, no, not my cup of tea. The lecturers are the experts there...</td>
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<td>Mary</td>
<td>If you had peer review you might have a little bit of mentality that someone gave &quot;Mary&quot; forty the last time so I don't care how good you're going to do this time I'm going to give them forty. No, that would be my first reaction, I wouldn't trust myself and anyway that's the lecturer's job, right?</td>
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<td>Mary</td>
<td>Pick our own groups? Um I think maybe it could happen that you were with one person or a job with one person or two people a lot of the time, so maybe in that case it might be an idea that you might get one problem where you'd say, “right organise your own groups”. Then I think a bit differently I would be thinking about the poor people that nobody wants to work with.</td>
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<tr>
<td>Sophie</td>
<td>I do feel that the lecturers are there to go guide us and teach us, do you know, so if I got an opinion like that, it's like that scenario for me in an individual assignment I felt I really needed to change this because someone is telling me that's not the right way and they're the ones giving me the mark at the end of the day. So, I found, listen, you have to listen to this because I don't think I would have been told it was wrong if it wasn't wrong, well do you know what I mean? So, the problem kind of lay with me as such, in what I had produced.</td>
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<td>Sophie</td>
<td>I kind of came round and just said listen you need to get over this now and start again or you know go in this direction or that particular direction I've been advised to go in because I always did. Because like I said, I knew I wouldn't have been told unless I was wrong, and the role of the lecturer was to help us and to guide us so I felt if I didn't listen I was not going to do well, I am not the expert at the end of the day I was training to be one.</td>
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<td>Sophie</td>
<td>I suppose, how do you really know that they're wrong? I would take it that they were never wrong (laughs) and I know what you're saying, am, I suppose, yeah like there, we always had more than one lecturer so we always had more than one person guiding us</td>
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Sophie | to be honest for me personally I never doubted lecturers because I am not perfect at all you know, so to be honest I just took it is kind of Bible as such. Because to be honest there are so many times where I was told I was doing well so why would they choose to tell me now I’m not, it was for my own good really, I felt.

Sophie | I just feel like you shouldn't really be marking your own work because you're not, you're going to be biased. I would think I'm great and I deserve this and that but like that's me. I'd kind of feel that only the lecturers are qualified to do this.

Sophie | I think the individual submission should have been monitored a bit more and that's the way then it's the lecturer giving the grade based on the individual submissions as opposed to the other students in the group getting involved with the mark of the person they felt isn't because then we were kind of out of it I would feel, well, we we would be out of it is what I mean, so but there was a mechanism for monitoring individual stuff and group stuff but maybe it wasn’t as monitored as you know.

Sophie | Whereas with the lecturer it was different, they were in charge of the class as such and we all knew it. The moment they walked into the room they kind of just took control and gave us direction. At the end of the day it was them that assessed our work and passed out the grades, so we had to keep on their good side if you know what I mean.

Sophie | we had to email work to them or upload a draft to SharePoint so they would have had an opportunity to read it before they spoke to us. But, just by doing that and going through that review process let you know who was in charge. I think though this was helpful as the session was productive then and we knew we were on the right track. To be fair the feedback was always delivered in a positive way even if we were going down a side road. It was never like...this is crap this is not working. You know, they were always there keeping an eye on us and it was always positive to be fair. I found with the lecturers when it came to group projects, the guidance that we got at the start when we were learning and we were first starting out with problem-based learning. It looked like there was a load of assignments just stuck together, whereas by the end of year two, it was flowing.

Laura | we always attempted our very best to go down that line for our own sakes because we knew it was only being said for that purpose and there was never any question. And we always remembered that they allocated the marks. I think that's what I mean by the young students today. My generation of people of students, we don't really, I feel anyway, our class we didn't really and even my undergrad class, we just take what we're told and work with it, we don't really really want to be questioning, we felt like it wouldn’t have been said in the first place unless there is a reason for it. Unless it had merit,

Laura | No, not me personally, but maybe with another person’s group. I think sometimes they might have conflicted more with the lecturers and they would normally obey the lecturer and go down the route suggested by them. You have to remember that the lecturer called the shots really overall.....but no, no not really that I can think of.
<table>
<thead>
<tr>
<th>Laura</th>
<th>Yeah, you could choose to go down your own path yeah, but I’d always try to make sure the lecturer knew I was doing this and it wasn’t then a total surprise to them.</th>
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<tr>
<td>Laura</td>
<td>I always knew that ultimately the lecturer was the one who controlled the marks we would receive. But, otherwise sometimes you would be trying to egg them on to give you more information. I’d say it could be difficult for them to hold back maybe, at times, but, yeah.</td>
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<td>Laura</td>
<td>Remember, it was the lecturers who decided our grades and marks so sometimes students would play to that fact. I’m not just talking about younger students, but more mature ones too. But, in fairness, the lecturer spotted that quite quickly though I was, so, um, but I think that is part of life.</td>
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<td>Laura</td>
<td>We had those folders where you are inputting your notes and your bits and pieces into. You know, usually if I read an article I take out a couple of points from it and kind of do it in a table. Those were going up so they knew what you were looking and reading, so no I don’t think so. They seemed to know everything we were doing and looking at, we also wanted to make sure they saw the work we were putting together, do you know? After all, they were issuing the marks, like.</td>
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<tr>
<td>Laura</td>
<td>Ya, I did feel it was the final mark, yeah. I remember my question why was why were we marked down or what were we missing in that? But, I did accept the results to be the result.</td>
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<td>Laura</td>
<td>I wouldn’t have liked to have contributed to the grade. For me, I think the lecturer should have been able to see that they weren’t contributing as much</td>
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<td>Sarah</td>
<td>you actually have to think if the lecturer is coming around to the groups you can’t sit there and say nothing you have to have some kind of an answer for them. Remember, its them that control the grades and they’re kind of monitoring what’s happening in each of the classes so they know what’s going all, all the time. At least, that was my view, but I think others felt that way too.</td>
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<td>Sarah</td>
<td>Well, that’s sort of how it felt to be honest like. They were kind of watching the groups and the people in the groups to make sure they were contributing so it kind of really felt that we were under surveillance a lot of the time. I suppose they had to really, as how else would they know what’s going on and keep an eye on things?</td>
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<td>Sarah</td>
<td>I mean how else could they award grades to each person. How else could they decide who contributed more than the others? Sure, they had to really. Didn’t they? It was their word when it came to the grades.</td>
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<td>Sarah</td>
<td>Kind of like you were in a goldfish bowl, that you had to be really careful what you said or did when the lecturers were in the room.</td>
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<td>Sarah</td>
<td>When the lecturers weren't in the room - You could relax, you could say what you wanted and even switch off sometimes. Not that I did that very much as you had your group relying on you, you know. But, you could see some others definitely starting to switch off I reckon.</td>
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<tr>
<td>Sarah</td>
<td>so obviously you're going to be clever in how you kind of work on what areas you work and what the lecturer is looking for in each part was very important.</td>
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<td>Sarah</td>
<td>I preferred where you knew what you were going to get...you knew were you could go and it was like I don't like the thoughts of going down a different path. We were really conscious that this was the, kind of, direction the lecturers wanted us to follow so we would always just go that way, do toy know what I mean? Remember, we really wanted to get good grades and not just the bare pass.</td>
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<td>Stuart</td>
<td>I think it is really important to you to interact with your lecturer. To find out like...ok...if I lost a mark there, what did I lose it for? We were all aware that the lecturers called the shots, if you know what I mean. You’d want to know what was it on your report, you know...what can I do better the next time?</td>
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<tr>
<td>Stuart</td>
<td>You do need direction, you do need to be... you do need to sort of be brought along you know. Groups can go in any...can go off on funny tangents, you are studying by committee, you know. So not over directed but directed and again I would be comfortable with that, ya.</td>
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<td>Stuart</td>
<td>I will come back to that communication process with the lecturer, I always thought that was really important. And communicating, what about where you were going what you want to do why you want to go down one direction or another. I think as long as you can do that, then you’re not being told “don’t do it or whatever”, if there’s a reason not to do that...that helps...things happen, ya. I do know that some other groups didn't feel the same way as us, that they were reluctant to go a different way as it might annoy a lecturer and they might lose marks you know.</td>
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<tr>
<td>Stuart</td>
<td>Self-grading...I wouldn't...I mean, ok...both my gut and my head there say no because I can't just.... No, that's what you pay lecturers to do.</td>
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<td><strong>Stuart</strong></td>
<td>That's what you have faith in...I mean you need to have trust in your assessment system. I'm not sure I trust an assessment system that I am involved in to assess me and again you need to be outside of the dynamic and outside of the personal thing...and in this instance...outside of the personal thing if you are going to grade yourself.</td>
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<td><strong>Stuart</strong></td>
<td>I wouldn’t to be honest with you now. There were moments during the time when I thought “oh my God why do I have to be in this group?” but no I wouldn’t. I think, again you have to have somebody act as referee or whatever. Somebody that’s outside it has to have a degree of independence as opposed to the alternative.</td>
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<td><strong>Karen</strong></td>
<td>This person overall come out with a less grade, now it was only slightly less but I think you know it was very dissatisfying. Surely this can be spotted early on, why don’t the lecturers deal with this? They are watching us all the time anyway.</td>
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<td><strong>Karen</strong></td>
<td>Despite having less input in throughout the course of the project and I think that's a very frustrating for sure...yeah definitely like. We hear all the time that the lecturers monitor each persons work during the project, but if this is the case how come this isn't sorted?</td>
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<tr>
<td><strong>Karen</strong></td>
<td>we've had many cases where the direction in which we were going has changed and we may be on a particular path and you know we may get feedback that's “no guys - I think you should look at this”. We go away and think about it and you know we are mindful that we don't have to do that and its is never imposed on us to do that which is good. You know, as a lecturer you're giving direction, your giving advice. Then I suppose once it's given, it's up to you to take it if you wish or to carry on. But to be honest, more often than not we have implemented the advice. Maybe not in a total approach but we may have taken parts of it, implemented it with our own...with our own thinking as well. To make it better, but we don't feel...I don't think we feel the onus or the pressure to take on board the suggestions of the tutor over and above what you feel is right yourself for the project that’s not there...which is good. At least I don't think we ever did but then again we may be doing it subconsciously, particularly if grades are important to you.</td>
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<td><strong>Karen</strong></td>
<td>That it's been more kind of...we will implement some of it but not all of it. Because it's either time constrained or because we feel that you know we can't justify doing the project at this stage and you know it's um it's an open enough, discussion environment where you can do that I think relatively comfortably which is great. So I guess I feel that nothing is imposed on you explicitly, not in so many words...but...</td>
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<td>Karen</td>
<td>Well...it's just that we all know that if we want to get the high grades we should kind of tow the line a little and give them what they want.</td>
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<td>Karen</td>
<td>A bit like we were back at school and the teacher is the boss and there's no real getting around that. Now I wouldn't say that we felt this all the time, just sometimes.</td>
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<td>Karen</td>
<td>Well, it definitely does impact it. I mean of course it will you know. It stops us exploring areas that could well add value to the project. The playing field is never level.</td>
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<td>Karen</td>
<td>It could well all be in our heads you know. But it is the feeling that the lecturers call the shots and possess the power over us, that's the real thing.</td>
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<td>Aidan</td>
<td>I just kind of feel that the lecturer is best placed to do this assessment and it shouldn't be down to me, that's their role after all. They're the expers, aren't they?</td>
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<td>Aidan</td>
<td>People are kind of there...they're noticing that the boss is behind so you gotta you know...the quiet ones will get graded out so I must speak there would be a bit of that I think at the group meetings. Without the lecturer standing over your shoulder or observing can be somewhat more fruitful because I won't say people are relaxed and let their guard down. They think about what they are going to say and then they contribute. Because you know...at the end of the day it's...it's the other people in the group who are grading what you're saying.</td>
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<td>Michelle</td>
<td>Because I think at the end of the day, I thought it was going to be me working on something and you know inevitably ended up being a group working on something but at the end of the day we are working for the lecturer it wasn't us actually working for the company. I thought we would have far more exposure to a company, but also you know it ended up being a little bit more of the whole student-lecturer relationship where I thought it would be more of facilitation and experience. It was more of the traditional kind of lecturing experience that I would be used to from college.</td>
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Michelle Because, at the end of the day when you are working with the client you want to actually...you know...you end up going off down these paths, these roads, as part of research and you're trying to work on the problem when you end up going off on a tangent and then if it's not the right tangent you could have wasted 2 weeks and the lecturers will come in and you know, we're all trying to say...at the end of the day the lecturer is grading you. You want to make sure that he is happy or she is happy, but at the same time we have to make sure the company is happy. Whereas, we should have been making sure the company was happy and the lecturer should been the person that was just supporting and behind us and working more with the company. I felt like it was...the company came in and then we didn't see them again for 6 or 8 weeks. We worked for the lecturer in those 6 weeks and then we present what we thought the company wanted. But really was it at the end of the day because 6 weeks is a long time frame in the companies life and what they require...you know.

Michelle But at the same time isn't the...whats the word... isn't the person who is not...power...the person that comes in to tell us what to do when we could, we will be working on something and we've been writing up something but we'd be very aware to the fact that a lecturer was coming so we had to make sure we...our writing styles was right or our critical thinking was evident. That we're actually following something...we couldn't really think outside the box...a small bit...for the client because we wanted to make sure that the lecturer was happy. So at the end of the day “power” is the right word and they have the power and you know, we were working for them as opposed to working for the company.

Michelle If we were put into different groups which again was controlled by the lecturer which I probably would have preferred to be a little bit more controlled or influenced by the students in the group as opposed to the lecturer deciding who I was with all the time. The lecturers had stronger personalities, or maybe that’s just how they seemed as they called all the shots. We kind of had to go with the stronger personality because it was very difficult not to. But at the end they did introduce the little bit more of an individual role, an element into the assignment and once that was there was that was introduced it did help the little bit of a kind of trying to think for ourselves a smaller which definately helped.

Michelle I would have thought that the PBL experience would allow us as students to dictate...to be the dictators as opposed to the lecturers. If you can say that...but I would say that you know if I would have said that PBL was so flexible that it would have allowed the situation to happen that we could have control it ourselves and manage the situation. I would have said that's what PBL was.
Michelle | But it's just that it ends up then, you know, it all just get a little bit confused and I suppose the power struggle between the group dynamic and lecturer and the lecturer trying to control the group's dynamic ends up as well causing a little bit of…some people end up just sitting back just because there's no point in trying to get into the muddle of all of that as well, you know.

Michelle | but I suppose at the end of the day when your handing in something and you go into the boardroom for your final presentation to the company you’re standing there...you’re wondering who’s the presentation for. Is it for the lecturer, is it for the company and have I ticked everyone's box or do I just need to tick the lecturer's box because at the end of the day that's my grade and in one or two occasions we definitely went in just for the lecturer. Because we really felt that if we didn't put what he wants on the page...she wanted on the page, we weren't going to get the grade and that was more important to us. Obviously, that's our careers at the end of the day you know.

Michelle | So the lecturer is grading it, the company didn't grade it at all. They weren't necessarily going to say they were completely unhappy with what we presented to them so once we realised that, I suppose different companies have different personalities within the company that we are dealing with. So you know where we felt that we needed to do something for the lecturer we did something for the lecturer. We weren't working for the company you know, which is unfortunate because of the end of the day you would like to be doing it for the company vs doing it for the lecturers. That’s why I would have signed onto the course, you know, that's just the age old student-lecturer relationship, that you have to please the piper you know.

Michelle | it might allow the lecturer then to facilitate a little bit more as opposed to them being the authority and everything and us working for them you know.

Michelle | yeah I know the whole group would have felt that because we had this whole idea of what PBL was and then that kind of got smaller and smaller and it became more like the traditional lecturer-student role. And there isn't a huge number in the room so there isn't a huge need for a power struggle that comes between the lecturers to them so they can control its not a control issue we are all adults doing a Master’s but it's just it ends up being that you are working for a lecturer more than the company.
<table>
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<tr>
<th>Michelle</th>
<th>Definitely far more with the students with companies and I suppose that it is actually facilitation of the lecturers is that they’re not dictating the pace and that we don’t feel like we’re doing it for the grades. That we’re not working for the lecturer that is actually that they don’t hold the power. That we hold the power I suppose to be honest with you, now like you want to do this and do it right and learn from it and we need the lecturer in order to do that. But we want them to do it in a way that facilitates us and let us grow our minds as opposed to them dictating our minds.</th>
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<tr>
<td>Anne</td>
<td>The lecturer is still controlling the whole experience and the lecturer is still very much in control of the room and the students. It was a bit of a surprise to be totally honest. And we all felt the same way, you know.</td>
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<td>Anne</td>
<td>But, still we were still like very much in a student / teacher type environment where the lecturer was still the boss. Did we have more autonomy than undergrads? Probably yeah, but still we were very much the students.</td>
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<td>Anne</td>
<td>Well, they’re the experts in all of this aren’t they? They have lots of experience and have been through all this before haven’t they. We all believed they know exactly what they were doing. They lead the sessions and meet the groups.</td>
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<td>Anne</td>
<td>Well its not in any way a dictator control its just when I say control, what I mean is that they are still in charge ensuring groups are working, ensuring the people are attending, ensuring that deadlines are being met and ensuring the clients are happy with the end result of the project. I think it's kind of more a facilitating control, a little bit less so than other side but it would have seen my undergrad but the lecturer is still there to say you have deadlines due in 2 weeks time. You have a presentation at 10 o’clock next Monday morning...look you’re falling behind...you're not coming in enough. So there is still very much control there but I think it has to be some bit of control otherwise people can go off in all directions.</td>
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<td>Anne</td>
<td>I think lecturers were very observant and very aware of the level of work the people were putting in. That’s the one thing I liked about the whole approach, was that your lecturers knew who was on top of their work, who was falling behind, who was struggling with a certain subject area maybe. So, I do feel when it came to it that my grades definitely reflected my work, yeah I do think they were fair and I think they reflect the level of effort I have put in.</td>
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Anne | I would make that part of the project that they actually have to go to find a client that needs assistance and maybe make that an idea for a project to take it away to reduce a little bit of the control that lecturers have in terms of the assignments and how the assignments are delivered but other than that no.

Sinead | your little bit wary of what you are saying because you're not sure how much the lecturer is one listening but two maybe taking notes and you know maybe with that observation is that going to potentially impact your marks for the assignment or for how are you doing for the rest of the year but you do very quickly get used to the lecturer being there observing in and in all honesty you kind of forget their there once you get comfortable with you know when you get into an assignment and your comfortable with what you've been tasked to do then you just typically get on with it.

Claire | I think you see I know we had a student portal and we uploaded the work we would have each have done individually but I don't think that was really ever reviewed or taken into account and I suppose that was clearly evident if you were reviewing that who was doing what in the team.

Claire | hmm I don't know how effective that would be. I think some people would have the opinion that they are fantastic at everything and give themselves a 100% and I don't know if it would be an accurate grade if you were to self assess yourself. Sure isn't that the lecturers job anyway. I think it's better to have a firm gap between the lecturer and the students, at least if they are giving the grades it's done professionally and impartially.

Claire | Oh yeah sure that would be a fantastic idea. yeah but is that fair? you might get one team getting really good grades all the time and another one struggling and never learning anything, would it be fair. It would be great but would it be fair? I think it would be best to let the lecturer do that, then if it goes wrong we can always blame them...(laughs).
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<thead>
<tr>
<th>Theme</th>
<th>Description</th>
<th>Analysis</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>Theme 1</td>
<td>First theme details</td>
<td>Detailed analysis</td>
<td>Implementation strategy 1</td>
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<tr>
<td>Theme 2</td>
<td>Second theme details</td>
<td>In-depth analysis</td>
<td>Implementation strategy 2</td>
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<td>Theme 3</td>
<td>Third theme details</td>
<td>Comprehensive analysis</td>
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<td>Theme 4</td>
<td>Fourth theme details</td>
<td>Thorough analysis</td>
<td>Implementation strategy 4</td>
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<td>Theme 5</td>
<td>Fifth theme details</td>
<td>Complete analysis</td>
<td>Implementation strategy 5</td>
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## Appendix 8.4 Analysis: Power Lens

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<tr>
<th>Coding</th>
<th>Lecturer Power</th>
<th>Micro &amp; Macro Conceptualisations of Power</th>
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<tr>
<td><strong>Student</strong></td>
<td><strong>Frank</strong></td>
<td>Gore, Jennifer (1995)</td>
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<td>Although it was really good that we are working together sometimes we got to a point and then had to wait till we spoke to our lecturer in the meeting we’ve got the opportunity to do so then we can further further or learning and further our work on the assignment and also says it’s definitely was advantageous and that you can can work together and and find find our own way of doing it I think we still got to a certain point we were that bit afraid to go that bit further and wanted the advice of the lecturer</td>
<td>Normalisation</td>
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<td>This was all then assessed by a lecturer who decided the grade you achieved either as a group or as an individual, we didn’t really have any input into it...</td>
<td>Normalisation</td>
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<td>We always got to a point where we were afraid to go any further and we’ll always put forward our ideas and thoughts to our lecturer and where we were and where we needed to go. He would then assist us, but there might be times where we might come out and you might find out that we’ve actually gone in another direction from our discussion with him. So whether that’s a good thing or a bad thing I don’t know in that we were trying to find our own way but felt that we could only go so far so ‘cos we still need the assistance of our lecturers so although it is problem based learning it’s seems like we always at some stage ended up going back to our lecturer to see if it’s ok and he either gave us the yes or no and lead us to either the route that we were going or might just tell us to veer left and go up another way.</td>
<td>Regulation</td>
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<td>There was never an instance where we were given the freedom the choice ourselves to go into groups.</td>
<td>Regulation</td>
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<td>I think it was more beneficial for us that it was picked externally or randomly. Because if we decided to select our own groups we would have only selected the people that we were comfortable working with and I always would feel myself that it’s always beneficial to play outside of your comfort zone sometimes. Because that... of course helps the learning process and you gain more experience by doing that. So, the selection of groups I think it was there for the lecturer to decide rather than us picking them.</td>
<td>Distribution</td>
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<td>It would be just a bit simpler and easier for a lecturer to decide themselves. But then at the same time then you’re looking at the lecturers preferable company that maybe they would choose maybe for themselves like you know. So you wonder, you wonder then are the class having the desired interest that they would like to have.</td>
<td>Distribution</td>
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<td>The one issue there is that the lecturers control the grades so you have to just play the game...you know.</td>
<td>Regulation</td>
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<td><strong>Dan</strong></td>
<td>They do play God every so often though and that can be a bit annoying, especially in the first year.</td>
<td>Surveillance / Regulation</td>
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<td><strong>Dan</strong></td>
<td>Frustrating in the sense that, right, you know, we know the lecturer knows the answer and we may be looking for a little bit more guidance right,</td>
<td>Exclusion</td>
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<td><strong>Dan</strong></td>
<td>Not that we know the answers like the lecturers, we don’t but we understand the mechanisms of getting to where you need to go and which I believe helped</td>
<td>Exclusion</td>
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<td>Appendix 8.5 Analysis SIT Lens</td>
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