

Understanding Facilitator Practice in the Problem-Based Learning Classroom

Nawaal Davids

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Declaration

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works of other people has been attributed, and has been cited and referenced.

Nawaal Davids

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Acronyms

EDU – Educational Development Unit

FHS- Faculty of Health Science

LOs – Learning Objectives

MBChB – Bachelor of Medicine and Bachelor of Surgery

PBL- Problem-Based Learning

UCT – University of Cape Town

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Abstract

This study looks at eight individual PBL facilitator cases in the field of medical education at the University of Cape Town (UCT). The aim of this study is to gain an understanding of what affects facilitation practice in a problem-based learning (PBL) classroom.

The facilitators come from various backgrounds and have different levels of knowledge and experience. They are, however all employed in a course on a part-time basis during the second semester of the MBChB first year programme. Each facilitator was observed during their facilitation of a PBL tutorial and thereafter they were interviewed about their actions in the classroom.

Bourdieu's theory of practice was used as the theoretical and descriptive framework in this study of educational practice in PBL. Bourdieu speaks of 'habitus' or the 'dispositions' of facilitators that influences their practice. He describes the 'field' as the specific area where interactions occur that are shaped by the habitus of its participants and in turn shapes their habitus. He also describes 'capital' or assets that the facilitators may possess from their previous or current fields that shape the interactions in a field.

This theory offers insight about who the facilitators are, how they behave in the teaching practice setting and provides an understanding of what contributes to their practice in PBL. The findings are that facilitator actions in the classroom were shaped by a number of factors including their personalities, social backgrounds, qualifications, experience, beliefs and perspectives, their fields of practice as well as the medical education field at UCT with its institutional factors and values. Theory of practice not only illustrates the principles underlying facilitator practice in the PBL classroom, but allows a description of the interactions between unique facilitator dispositions, experiences, assets and values within a field of medical education.

This study forms the basis for future studies in the area of PBL facilitator practice and will contribute to improved staff development, placement and appreciation of PBL facilitators.

Chapter 1 – Introduction

Problem-based learning (PBL) was first introduced at the Faculty of Medicine, McMaster University in Canada in 1968. This ideology, albeit poorly understood, became an international attraction, especially to those who sought new ways to enhance their medical courses (Taylor and Miflin, 2008). Despite its elusiveness, it is still routinely implemented at medical faculties worldwide. In the over 40 years of PBL existence, several medical education scholars around the world have attempted to define, understand or explain exactly what PBL means in terms of pedagogy and curriculum (Taylor and Miflin, 2008). Although many have justified why PBL is effective, there is still confusion around its practice, preventing clear communication or convincing recommendations (Taylor and Miflin, 2008).

Various studies have been conducted to understand the facilitation of student education in PBL (Davis and Harden, 1999; Dolmans *et al.*, 2005; Wood, 2005), how PBL facilitators practice in the classroom (Hmelo-Silver and Barrows, 2006; Goh, 2009; Moore, 2008) and what influences facilitation styles and teacher development (Guskey, 2010). The reason for these and other studies around the PBL classroom is that PBL is strongly based on the context in which it is implemented, which has as much influence in determining the success of PBL as does the process of implementation (Taylor and Miflin, 2008). Thus there are a multitude of interpretations and variants of PBL pedagogy and curricula worldwide.

In 2002 the University of Cape Town (UCT) Faculty of Health Sciences (FHS) implemented this method of pedagogic practice in the health sciences, moving away from its traditional model of discipline-specific teaching to a student-focussed PBL curriculum. Since PBL and small group facilitation represented the main teaching and learning focus in

the first three years of the MBChB programme, a new cohort of educators, tutors and PBL facilitators in addition to the usual academic staff, were required and thus employed to facilitate student learning.

The UCT FHS model of PBL practice may differ to other models of PBL due to its unique facilitator context. Facilitators at UCT FHS span a wide range of backgrounds, encompassing both clinical experience, health sciences knowledge and also other educational experience, with some having varying degrees of experience in one or a few of these backgrounds mentioned. Some facilitate in one course only while others facilitate in several. Each PBL course may differ in content, which is influenced by course requirements, knowledge requirements and processing, content load as well as student level, ability and maturity. These and numerous other factors may influence facilitator practice and the student experience in the PBL classroom.

Past staff and student evaluations have suggested that the facilitator role is vital to the PBL experience¹. As a course convenor in a PBL curriculum at UCT FHS I find the complaints by students and facilitators about the learning experience, reflected in these evaluations, unsettling. The mainstay of these complaints is that there are students who often leave the classroom having had poorer experiences to those of their peers and colleagues who undertook the same course.

Thus far little has been done to address this problem. This study is an attempt to address this problem by exploring the role of the PBL facilitator and defining what influences facilitator practice. If the student experience or student learning is at all affected by facilitator practice, it would be appropriate to consider who our facilitators are and the factors that influence what they do in the classroom. To this end I will explore the values and backgrounds of facilitators and their contribution to the PBL experience.

¹ Personal communication with Semester 2 convenor, 2013; Personal communication with Semester 4 and 5 convenor, 2011; 2012; 2013

In Chapter 2 of this dissertation, the reader is introduced to the system of PBL at UCT. The challenges experienced in this context are explained and the research problem conceptualised.

Chapter 3 describes the search for similar studies in the literature on Medical Education and in the available literature on the application of sociology theory in medical education. It also illustrates how the theoretical frame is conceptualised based on Pierre Bourdieu's theory of practice.

Chapter 4 highlights the research methods and the ethical considerations in performing this study. It looks at methods of data collection, data reduction and data display and goes through a detailed explanation of the method of data analysis. It also provides the reader with insight into the analytical framework as a translation and understanding of the theoretical stance taken.

Chapter 5 is a description my findings for each individual facilitator studied. It looks each facilitator's background, values and experiences at UCT as it relates to Bourdieu's theory of practice.

Chapter 6 explains what influences facilitator practice in the PBL classroom according to Bourdieu's concepts of *habitus*, *capital* and *field*. It highlights the points of tension at play in facilitator interaction in the field of medical education.

This thesis concludes with a note of the importance of this study in staff development, as well as with further reflections on the study.

Chapter 2 – Context of the Study

2.1 PBL and PBL Facilitation at UCT

Since 2002, UCT FHS has promoted the PBL-based curriculum and methods of teaching practice in the first three years of the undergraduate MBChB programme. The purpose of this shift was to produce an outcomes-based curriculum to align with the MBChB graduate competencies promoted by the university (UCT FHS, 2011). Graduates were expected to be self-directed, life-long learners who were competent to practice at all levels of health care, embodying a holistic approach to patient care. The education philosophy thus shifted from a teacher-centered to a student-centered approach (UCT FHS, 2011). In this student-focussed curriculum lectures, laboratory or other practical sessions, e-learning and other forms of teaching supported the PBL tutorials (UCT FHS, 2011) which formed the focus of educational practice. PBL practice required that a new cohort of educators, tutors and PBL facilitators needed to be employed to facilitate student groups.

PBL cases

PBL sessions are structured around clinically simulated patient cases which were thought to be the most common primary healthcare problems prevalent in South Africa. Each case is a holistic scenario including biomedical, socio-cultural and public health issues that patients and communities are exposed to. This implies the integration of up to 14 individual health science disciplines in one case. There are 20 such cases, designed initially by the university curriculum team and discipline specialists at the start of the PBL programme in 2002. These cases still exist today with minor changes or additions made by course design teams over the years. The 20 cases span through Semesters 2 to 5 and increase in discipline content and difficulty as the students progress through semesters.

Every fortnight students receive a PBL case which is analysed and interrogated. From these evaluations key issues are drawn. Learning objectives (LOs) are then decided upon and carefully researched, the results of which are fed back to their PBL group in follow up sessions. In total there are three to four PBL sessions per case depending on the course, the first session for analysis and the remainder for feedback. During the fortnight in which each case spans, the students also receive supportive lectures, practical laboratory sessions and tutorials by the discipline specialists on topics that relate to the PBL case studied. In this way students receive discipline content guidance and structure to develop their knowledge from a variety of available resources in a way that streamlines workload.

The 8-step PBL process and group members

A 7-step PBL approach was originally developed by Maastricht University in the Netherlands and subsequently adopted and altered slightly by UCT FHS into the currently used 8-step PBL model (UCT FHS, 2011). The process allows students to learn, develop and deepen their higher-order cognition as they repeatedly practise PBL through the various semesters. The steps consist of:

- 1) Reading and analysing a simulated patient case while identifying and clarifying unfamiliar terminology in the process. Students then try to define these unfamiliar terms using available resources and textbooks.

- 2) Identifying key issues in the case. These key issues are agreed upon by the group and are scribed by a designated student in the form of a mind-map on a whiteboard in the classroom.

- 3) Discussing prior knowledge of the key issues identified. Here students interrogate and discuss the key issues according to what they may have experienced and

learned in their prior years of study. Any gaps in knowledge that emerge can be flagged for later discussion in subsequent PBL sessions.

4) Linking of key issues. Students explain and analyse the relationships between the key issues identified and link them to related ones. Linking is based on causative, associative and hierarchical relationships between concepts.

5) Create LOs. Students create a list of LOs they feel are important to study in the case based on the gaps identified in their knowledge of the key issues. They need to use appropriate action words in their LOs to ensure that they are covering the content in sufficient depth.

6) Evaluation. Students reflect on their own learning and the contribution of the other students in the PBL session. They give feedback to each other on what worked well and what needed improvement, and develop solutions to address their shortcomings in future sessions. This is also an opportunity for facilitators to evaluate the individual performance of students as well as invite feedback from the students on their facilitation of the session. This group task marks the end of every PBL session.

7) Students engage in self-directed learning and research around their LOs. They make use of a range of available resources such as lectures and textbooks to make notes on the LOs.

8) Report back of LOs. Students return to their PBL groups in sessions two, three and sometimes four of the case to report on what they learnt in their study time. Each student contributes to the discussion, interrogates the knowledge gathered and provides reliable sources in practise of evidence-based medicine. Students are meant to link their knowledge back to the simulated patient case to assess its relevance and identify the shifts and additions to their thinking compared to the first session. During the last report back

session, students wrap up the case and discuss and test the learning that has occurred throughout the sessions.

Throughout the PBL process, the role of the designated student chair of the session is to manage the group, the PBL steps, completion of LOs, student contributions and the time. The selected student scribe keeps track of the group discussion. All students get equal opportunity to act as a chair and scribe to encourage the development of these necessary skills for future medical practice.

The role of the facilitator

Each facilitator is responsible for a group of approximately 10 students per semester in years one to three of the MBChB programme. The facilitator observes and listens to the group and ensures adequate management of the group and PBL process.

Facilitators ensure all discipline content outlined by the course is discussed in expected depth and interrogated. They may refer to the facilitator notes (see below) for trigger questions or guidelines on probing during the content discussion. Facilitators aid the chair and scribe should they not be confident in their roles or should they mislead the group's learning. They also manage any critical incidents occurring in the session by "helping the students to identify how their behaviour affects group learning" (UCT FHS, 2011:16).

Facilitator and students meet for PBL in a tutorial style venue three to four times per fortnight for two to three hours. Students are allocated to their groups according to race, gender and grades in an attempt to create an equitable distribution of student backgrounds and in an attempt to follow the demographic profile of the South African population. Facilitators are at present not placed according to these criteria mainly due to

staff shortage and availability. At present there appears to be a white female dominated facilitator cohort with a black female majority student profile.

PBL facilitators in the field of medical education at UCT

PBL facilitators are recruited from within and outside of the UCT FHS. Facilitators are drawn from a broad range of backgrounds including postgraduate students in the health sciences, post-doctoral researchers working at UCT FHS, academic staff members qualified in the health sciences, health practitioners employed in the private sector such as medical doctors, psychologists, paramedics, nurses and social workers, as well as postgraduate students from the social sciences and ex-teachers.

The minimum requirement to facilitate is any Bachelor's degree in science, health science, psychology or education. In addition the facilitator is required to undergo a three day training programme in PBL prior to employment. Science and health science graduates and professionals do not specifically require prior teaching or facilitation experience, although this may enhance their chances of employment. Although facilitators from the education field do not require science content knowledge, convenors do tend to select facilitators with greater amounts of science content knowledge or clinical experience in the more senior semesters; as students are more knowledgeable and require more detailed probing around the content. Facilitators are meant to receive staff support in PBL through their training and content knowledge preparation at the compulsory development sessions or fortnightly case meetings throughout the course.

There appears to be no strict guidelines or rules as to where facilitators are placed, and they tend to be employed according to which course convenor they have been referred to or which course they happened to hear about. Facilitators from outside of UCT are recruited after they apply to convenors and their résumés have been reviewed. The

convener interviews them and provides an orientation to the course. Facilitators or tutors already working in other courses at UCT FHS are often referred to facilitate PBL. In addition staff members involved in teaching and convening the courses are often automatically required to facilitate as part of their teaching contribution. Facilitators of PBL vary in their level of experience. Some pass briefly through the PBL system by facilitating one semester and moving on, while others have participated since the inception of the supported-PBL curriculum in 2002.

Facilitators from outside of UCT are employed per semester on a part-time ad hoc basis. Thus many facilitators either practice or tutor elsewhere or are completing studies in their respective fields. They are paid according to their qualifications and level of teaching and clinical experience. Their work only involves PBL facilitation and evaluation of their PBL students.

All are given UCT identification and access cards allowing them use of general areas such as the campus parking, cafeteria, library, computer labs, administration offices and tutorial venue (i.e. a special venue consisting of several small rooms where all PBL facilitation through all the semesters takes place).

Because facilitators have no access to the other staff buildings on campus their movement and interaction is restricted or limited to staff and students sharing the areas mentioned above. As a result most facilitators are only familiar and comfortable around their colleagues in the PBL arena. However, some senior facilitators do assist the Educational Development Unit with monitoring of PBL sessions, or the convenors with marking or facilitating other courses. Generally their access is similar to that described above, but they may have more university recognition.

Facilitator development

Facilitator Development revolves around preparing the facilitators for the PBL classroom and case-based tutoring and consists of the following components:

i) Facilitator Orientation Training

The UCT FHS Educational Development Unit (EDU) sponsors and runs two PBL facilitator training programmes yearly for all new PBL employees prior to the start of employment. This compulsory certified training course extends over three days.

In the training programme, facilitators are educated on the philosophy of PBL, the 8-step PBL process adopted by UCT, the role of the PBL facilitator and students, as well as how to manage a diverse group of students. The aims of the training are thus to promote better facilitator understanding around the teaching and learning process fostered by PBL and the motivation and support of student learning in a self-directed learning and dynamic student environment.

Throughout the programme facilitators are given notes and articles to read on the background of PBL and its implementation internationally. They are given an opportunity to self-study around PBL and to feed back to their colleagues about the PBL steps.

ii) Facilitator development sessions

Facilitator development sessions, also called training sessions, are run by the Semester 2 convenor and a PBL training team and held approximately four times during Semester 2 only. The PBL training team consist of staff with experience in PBL facilitation and the PBL process as they have been facilitating in the PBL programme at UCT since close to its initiation. They are also responsible for the management and administration of the PBL facilitators.

The development sessions were designed based on the need to provide the facilitators with feedback post facilitator monitoring (see below) and for ongoing support. In the past before facilitator monitoring was implemented, facilitator development sessions were designed and directed by experienced senior facilitators and based on the perceived need for facilitator educational support and guidance.

In the facilitator development sessions, the PBL training team addresses the revision and enhancement of the PBL steps based on the weaknesses noted during monitoring. The PBL trainers provide creative and fun tools, which facilitators can utilise in the classroom during the PBL process. This opportunity for facilitator interaction, sharing and feedback is to offer support to facilitators who may not have content expertise and who perhaps rely solely on the PBL process to guide the group learning process. Within Semester 2 there is a large cohort of non-science background facilitators whereas in Semesters 3, 4 and 5, facilitators are more likely to be disciplinary and clinical experts.

iii) Fortnightly case meetings

Facilitator case meetings are generally held fortnightly prior to the start of a new case. They are tailored to the individual course and run by the course convenor. The convenor is usually a medical doctor or science specialist with relevant content knowledge. They advise the facilitators and address issues around student core content knowledge requirements and coverage as well as discipline LOs and feedback on content concerns of the groups. It is assumed that the facilitators are able to follow the 45 minute content briefing and prepare for class using this overview and their own knowledge on the content.

The facilitator orientation, training and the case meetings provide facilitators with the tools to manage various situations in the classroom, case content discussions, PBL process and student interactions. They are also meant to help facilitators prepare and reflect on methods to enhance the pedagogic experience of the students.

Facilitator notes

At each case meeting facilitators are given a set of notes to aid them in PBL. These comprise of the simulated case that the students also receive and a list of faculty LOs that facilitators use to guide the students towards developing their own LOs. In addition each discipline contributing to the case provides a brief outline of the discipline content students are expected to discuss on the topic, on which facilitators should probe. At times the disciplines may add a list of trigger questions to probe the students understanding of course content.

These notes are studied by facilitators prior to the PBL sessions to prepare them for managing the content discussion. Should facilitators not have certain content knowledge, they may still understand the notes as these are essentially simplified overviews. As the students discuss the content in more depth, it may transpire that some facilitators lack insight into the discussion or have a limited ability to follow. For facilitators with medical backgrounds or science content knowledge, the content overviews in the notes are limited and they may then make use of their knowledge of the discipline to help them follow the student discussions or to ask their own trigger questions.

Curriculum and content structure of the facilitator notes

In PBL the promotion of integrated curricula and content is valued as part of a movement away from the clearly defined individual disciplines to more general and assimilated concepts in the basic and applied sciences. In an assignment for my post-graduate diploma, I analysed facilitator notes and guidelines given at the fortnightly case meetings (HUB 1007S, 2011a, b, c, d). The assignment showed that despite the promotion of integrated curricula, there is still a focus on individual disciplines and discipline content

(Davids, 2012). Facilitators are meant to use these notes as guidelines on how to direct student learning in the classroom. The difference in the discipline-focussed knowledge of the facilitator notes compared to the integrated learning, which is meant to be the essence of PBL, may similarly affect facilitator behaviour and strategies. Do facilitators merely use the notes as directed in the case meetings with a possible discipline focus, or do they use different strategies to those illustrated in the case notes, for example clinical integration? In this study I briefly reflect on whether facilitator actions in the classroom are influenced by the recommended curriculum.

Monitoring of PBL facilitators

A PBL monitoring project was implemented by the health sciences Educational Development Unit (EDU) due to the concerns of course conveners around quality assurance of PBL facilitation in Semesters 3, 4 and 5 (Alperstein & de Groot, 2009; Alperstein, 2011; 2013). The purpose of this project was to use the pooled results to address these concerns, that is, to give facilitators feedback on their performance as well as to use the results to improve facilitator orientation and facilitator development meetings.

A monitoring rubric was developed to gauge the performance of facilitators around a number of areas namely:

- 1) group dynamics and social congruence
- 2) facilitator support and guidance of students
- 3) learning principles or cognitive congruence
- 4) following the PBL steps
- 5) evaluation

In 2009 a total of 20 facilitators from the Semester 3, 4 and 5 groups were monitored by the EDU staff. A report was compiled around the general strengths and weaknesses found in each of the categories above (Alperstein & de Groot, 2009).

1) It was found that the group dynamics and social congruence were well addressed. There appeared to be good bonding and trust between the facilitators and groups as well as good facilitator role modelling and enabling of a participative environment in PBL.

2) The facilitators generally under-performed when it came to supporting the chair and scribe. These members were generally ignored or disregarded by the rest of the group. In addition a lack of facilitator assertiveness or management of critical incidents caused disintegration of the group's ability to work cohesively.

3) Learning principles such as asking open-ended questions were reported to be covered by facilitators. However, there was no report on what types of questions were asked by facilitators and whether these questions allowed for deeper content discussions. Facilitators needed to improve in facilitating critical thinking and evidence-based practice in students.

4) Facilitators were reported to be following the PBL process, but needed to improve their management of the discussion of prior knowledge, analysis of key issues, linking of concepts and students identifying their gaps in knowledge.

5) Reflection and evaluation on how to improve sessions and feedback to the group members were poorly covered.

Semester 3, 4 and 5 facilitators monitored in 2009 were given individual and group feedback, but did not receive any development or training during their semester, whereas the Semester 2 facilitators were given a head start in training around PBL process improvements as they were participating in the development sessions provided for them.

In 2011, the monitoring was repeated with facilitators from Semesters 2, 4 and 5 to assess whether the weaknesses in facilitation recorded in 2009 had improved with facilitator feedback (Alperstein, 2011; 2013).

Also, in 2010, a 'SOAP model' (Subjective, Objective, Assessment and Plan model) was introduced into the PBL process (Alperstein, 2013) which tested students' clinical reasoning skills. The integration of this model needed to be evaluated in monitoring as well. During this monitoring, however, Semester 3 facilitators were monitored instead of Semester 2 facilitators. This would ultimately influence the results that were collated and compared with the 2009 project.

In comparing the 2009 with the 2011 results (Alperstein 2011; 2013) there was no apparent deterioration of facilitation and the improvements appeared to be around enhancing the group's social congruence and following all the PBL steps adequately. Whether these improvements were due to the new data collected on the Semester 2 facilitators who had received enhanced PBL training on these factors, or due to the impact of feedback around these weaknesses to the Semester 4 and 5 facilitators, cannot be established from the reports.

In 2012 the EDU ran a PBL refresher workshop for all facilitators (Alperstein, 2013) that addressed the weaknesses identified in both monitoring projects. During the workshops, groups of facilitators worked on solutions to their perceived weaknesses and shared their experiences with other groups of facilitators. The PBL refresher workshop appeared to be successful with positive comments from facilitators. However, some facilitators still felt that they needed help around how to encourage critical dispositions in students, how to evaluate the group adequately and how to deal with critical incidents or problems that occurred in the classroom (Alperstein, 2013). Ironically, these are the very areas that the facilitators showed no improvement in between the period of the 2009 monitoring and the 2011 monitoring. This then implies that the Semester 3, 4 and 5 course

convenors need to address these aspects at their facilitator meetings and more emphasis needs to be placed on this in Semester 2 PBL training. Conversely it may be that the advice and support provided by the various facilitator managers is generally insufficient to aid facilitators in these aspects and that more research needs to be done on how to address them.

Facilitators were once again monitored in 2012 post- refresher training, but it was reported that there were variables that interfered with the validity of the process (Alperstein, 2013) throwing even more doubt on the validity of the monitoring project altogether.

Facilitator support for changes and improvements in classroom practice is provided by the Educational Development Unit, PBL training team and convenors. However, the issues around the nature of facilitator relationships with the students and staff, which may affect their performance and actions in the classroom, are overlooked. The facilitator perceptions and reasoning about their perceived strengths and weaknesses in the classroom practice is also often neglected. These factors have not been addressed by any form of facilitator monitoring or study, which I believe are vital to making decisions around facilitator training, development and placement. In addition, without understanding facilitator views and reasons for actions, are we truly able to make claims of facilitation strengths and weaknesses? In this study I attempt to highlight some of these valuable aspects to aid our decision-making around PBL facilitators and the support they may need. In future a greater study of student performance in relation to PBL facilitation should be considered, but that is beyond the scope of this study.

2.2 Conceptualising My Research Problem

As a convenor in a PBL-based course, I have experience working with students and facilitators alike and often have to listen to both parties' concerns and complaints around teaching and learning. Students will often informally complain about inequalities in facilitation due to the various facilitator backgrounds, facilitation techniques or levels of facilitator experience. Some request to be placed with specific facilitators as their perceptions are that they will benefit more from these facilitators in their learning process. Unfortunately, due to the lack of available staff members, staff resources and university knowledge on facilitator practice, it is almost impossible to accommodate the students' requests and concerns.

Facilitators on the other hand informally complain about unmanageable students, their own lack of content knowledge, lack of university support and recognition amongst various other concerns.

Anecdotal evidence as well as formal evaluations (Alperstein & De Groot, 2009; Alperstein, 2011) have shown that facilitator practice and performance often do not align with the techniques and tools reflected upon in the facilitator training, or with their level of facilitation experience in a PBL setting. Often reports on facilitator practice in the classroom cannot be directly linked to support provided by the institution. I have reflected on the fact that each facilitator brings unique practices to the classroom, whether this requires a revision of how we train and support facilitators and which students we place in their classrooms.

The problem around enhancing student learning and teacher satisfaction is overwhelming and appears at times unsolvable. It does not necessarily mean that facilitators are ill-equipped or lacking teaching skills. Nor does it mean that certain students have poor learning styles. It simply implies that we do not know enough about

what our facilitators do in the classroom, why they do what they do and how this affects the different groups of students from first to third year MBChB.

There may be multifactorial explanations for what facilitators actually do in the PBL classroom as they often bring with them methods, tools, experiences and beliefs gained through PBL or developed elsewhere. This may include unique teaching perspectives as well as ways of managing a class, motivating students or implementing the PBL process and so forth. Taking the above problems into account, it is necessary that we uncover what these teaching perspectives and teaching experiences are and how they drive facilitator practice in a PBL classroom. We need to ascertain where they stem from and whether they are valued above what is learnt at the institution? We also need to assess the extent to which the facilitator's background or experiences plays a role in this.

My assumptions are that influences such as knowledge and experience, personal values and beliefs and perhaps even sociocultural issues may play a part in facilitator practice in the PBL classroom.

My research question is thus: ***What influences classroom practice amongst PBL facilitators at UCT FHS?***

I have used qualitative approach to describe the underlying influences of facilitator practice, rather than the quantitative variable analysis often used in studies to determine facilitator actions and their reasons (Moore, 2008; Grasha, 1994; Yin and Peh). I hope to offer a sociological description through a lens based on Bourdieu's theory of practice to better illustrate that my study takes into consideration the individual, contextual and social influences of facilitator practice.

2.3 Purpose of the Study

Through this study, teaching attributes and facilitator skills will be identified to aid PBL staff (convenors, trainers and EDU) in understanding how to support facilitators and direct facilitator development sessions. Development programmes could be enhanced to suit the needs of facilitators and to focus on neglected areas of development whilst enhancing stronger ones. This process will ensure improved experiences and reflection amongst all PBL staff and facilitators.

Another motivator for this study is addressing the enhancement of student learning, support and motivation. The problem of the perceived and real inequalities in teaching and learning in the PBL environment may be alleviated by placing facilitators in appropriate positions within the various courses throughout the MBChB programme. Currently departments fill facilitation slots and employ people with tutor qualifications, whether or not they are properly suited to the course requirements or students' needs.

Likewise, facilitator enjoyment of the teaching experience will be enhanced through this process by placing facilitators in suitable positions that complement their teaching assets and experience. To this end, this study further aims to raise awareness of the importance of facilitators in making a positive contribution to education in the FHS UCT.

Ultimately this study will contribute to a growing body of knowledge in the field of medical education and more specifically to PBL pedagogy. Universities or schools implementing PBL or similar tutorials will be able to benefit from the design and conceptualising of this study to further their understanding, knowledge and research on facilitator practice. Thus not only will this study benefit the field of practice; it will also contribute to the field of research.

Chapter 3 – Literature Review and Developing a Theoretical Framework

3.1 PBL Facilitation in Medical Education and the Sciences

The majority of studies reviewed were undertaken in the PBL environment of higher education institutions in health sciences faculties and science and technology institutes, providing a similar context to this study at UCT FHS.

The literature review is organised according to how I had initially explored my research problem. Moore (2008) and Grasha (1994) explore the PBL facilitator and teacher role and teaching styles. Yin and Peh discuss strategic actions of facilitators that promote student learning and Spronken-Smith and Harland (2009) study the personal factors that affect facilitator actions in the classroom. Addressing the purpose of this study I reflect on Goh's (2009) work, which shows that facilitator development programmes should be designed based on the understanding of facilitator actions. Furthermore, Guskey (2002) discusses how teaching beliefs are shaped in relation to staff development. These studies together provide insight into facilitator practice and their underlying influences, as well as to how this impacts on the design of development programmes. They all use similar research methods based on observations and interviews, in an attempt to construct theories on PBL facilitators and their actions in the classroom.

Moore (2008) uses a grounded theory approach to highlight nursing educators' understanding of the facilitator role in PBL. Facilitator practice in the classroom was observed and facilitators subsequently interviewed in order to understand and create a theory on facilitator beliefs around their role in the PBL classroom. Moore demonstrates that facilitators' personal and pedagogical beliefs influence their facilitation in PBL. How a facilitator acts or practices depends on the facilitator's personal opinion and views on teaching and student learning. The study also comments on other factors affecting action

in the classroom such as facilitator confidence and perceptions of vulnerability. Often facilitators chose not to intervene in the PBL sessions for fear of exposing their lack of content knowledge. Student learning and growth was ultimately affected as they felt unequipped to deal with or contribute towards the students' content discussions.

Grasha (1994) looks more broadly at all teachers in higher education in an attempt to identify their teaching styles. He too uses what appears to be a theory building approach using observations and interviews to discover why people taught in certain ways. When he questions what influences teaching styles, the following factors are discovered to be the most significant (pg 144):

- i. The nature of the course
- ii. The size of the class
- iii. The subject matter
- iv. The level of the students
- v. Time pressure
- vi. How much they liked the class
- vii. The need to prepare students for standard exams
- viii. Information about alternate ways to teach
- ix. Willingness to take risks
- x. Not wanting to deviate from department and college norms for teaching

Researchers have shown that these factors may have a greater impact on facilitators who have had to shift to a PBL environment from a more traditional way of teaching, for example lecturing large classes (Spronken-Smith & Harland, 2009).

On reflection it appears that the factors mentioned in Grasha's study above do not necessarily reflect on the personal experiences and competencies of the teacher and may in fact be controlled by external factors such as curriculum, course or institutional pressures.

Concerning PBL at UCT, certain of the factors listed by Grasha are predetermined for the facilitators such as those mentioned in points i-v above. While we cannot assume that Grasha's factors are relevant to PBL facilitators at UCT, this study explores whether facilitator actions were influenced by external factors relating to the institution, knowledge, curriculum and pedagogy.

Yin & Peh (undated) report on a study done on the facilitation of first year students in a school of engineering sciences and other technologies at Republic Polytechnic in Singapore. The students entered a PBL environment after prior education in traditional teacher-focussed learning environments. They focused their study on facilitator strategies used in the classroom to promote students' critical thinking and critiquing ability, both fundamental outcomes of PBL facilitation at UCT (UCT FHS, 2011). Using a grounded theory approach, various facilitator strategies were found to be used. These included consistency in the communication of expectations by facilitators, monitoring students, participation in critiquing with encouragement and evaluating students' critical thinking abilities.

Other strategies used by teachers in the study were aimed at motivating students to participate in critical enquiry by mediating the discussion with for example repetition, interpretation, clarification, re-phrasing and challenging. Teachers also varied the presentation formats of PBL classes to "break monotony" (pg 10). These findings noted via classroom video recordings and lesson observations, also illustrated strategies used to "create a normative community in the classroom" (pg 12). Students were "re-socialized" into the requirements of the PBL classroom and altered their ingrained beliefs about teaching and learning.

The reasons for the facilitator strategies in the Yin and Peh study appear pedagogically based and nothing is mentioned of the personal motivations of the facilitator and whether they are contained in the reasons mentioned above or not.

Similarly, in the study done by Grasha (1994) discussed above, factors such as risk-taking, enjoying the class and fear of deviating from the accepted norm, appear to include non-education based factors influencing teacher behaviour and action. This has, however, not been expanded on.

Spronken-Smith and Harland (2009) offer an interesting view on personal factors that may affect facilitator action in a PBL classroom in higher education, such as a forced change in teaching habits. Through an action research study it was discovered that teachers new to the PBL environment experienced “difficulty taking on the PBL role of facilitator” and that “all teachers struggled to work within the rules of PBL” (pg 138). Teachers have to adopt a new way of thinking about the role of the facilitator and this may be a difficult transformation for the more traditional teacher. They elaborate that “when teachers relinquish control over curriculum content knowledge they are no longer required to be ‘knowledge-givers’ and this can challenge their values and expertise” (Bernstein *et al.* 1995 as cited in Spronken-Smith & Harland, 2009: 139). In essence, following the PBL method created a “compliance situation” (pg 149) where facilitators either followed or resisted the rules, however, the effect was none-the-less on teaching behaviour and thinking. They also found that further facilitator support in this transition was required, such as the development of a community of practice. Conversely this in itself presented its own problems such as the poor awareness of community of practice principles and lack of commitment by staff.

The work of Goh (2009) is an extension of the study done by Yin and Peh. She claims that one needs to understand facilitator actions and what makes them successful to be able to design adequate and effective staff support programmes. Goh feels that transitions in teaching perspectives to more student-focussed strategies are complex and facilitators require more than merely skills training to make the necessary shifts in paradigms or established beliefs.

In other words, by offering more effective staff support in the form of long-term developmental programmes, they intend to ease the transition of facilitator teaching perspectives and beliefs and in so doing influence facilitator actions. However, the main objective of the Goh study is to observe facilitator skills and actions with the aim of describing a profile of a ‘good facilitator’, which may be used to design the staff support structures. This was done by observing “patterns in discourse, dispositions and actions” (pg 2) of facilitators. There however appears to be a lack of evidence on the facilitator’s self-reported values and qualities that influence their actions.

Guskey (2002) highlights that once-off staff development or training programmes are often created to change teacher beliefs, attitudes and perceptions. However, it has been assumed that these changes in beliefs occur before the changes in teaching practice or actions. He implies that in order for teacher beliefs to change, teachers need to see evidence of the improvements in student learning. This implication is supported by Walkington *et al.* (2001:345) who believes that “an individual modifies his or her perceptions through experience and subsequently shapes teaching practice to be relevant”. In other words, it is not necessarily the initial teacher training that forms the crucial changing point, but the experience of a successful teaching strategy that changes beliefs. How teachers then approach their practice is through the fact that “they believe it works because they have seen it work, and that experience shapes their attitudes and beliefs” (Walkington, 2001: 383).

Often students at UCT informally complain of inequalities in the PBL experience due to a perceived lack of facilitator experience around the content. Moore (2008) raises the point that there is “potential for disparity in students’ experience of PBL” (pg 156). Moore’s study has elements that are common to my own study in that it attempts to gain a deeper understanding of facilitator beliefs of their roles in the classroom, which may ultimately relate to how they practice.

Gaining an understanding of facilitator practice would allow me to address the purposes of my research, one of which is to address issues of staff support. Goh's (2009) study has a similar purpose to mine, but unlike her study I will not only be focussing on 'good' facilitator behaviours as a model, but will also explore 'less successful' behaviours in order to understand what can be offered in terms of facilitator support.

The studies by Grasha (1994) and Yin and Peh most closely resonate with the aim of my research, that is, they focus on the factors driving teacher and facilitator action in the classroom and query whether teachers are ruled by institutional, educational, personal or other factors.

Through this literature review, it would appear that factors such as facilitator beliefs, experiences, knowledge of teaching strategies (old and newly acquired), level of content knowledge as well as teaching perspectives play a role in influencing teacher action and strategies in the classroom. This study will partially be informed by questioning whether the above factors are in fact underlying, driving teaching practice or not, and how they interplay with each other or with other factors.

Although the studies reflected upon above look at facilitator practice, the research methodologies used differ to that of my study. I have used a method based on a sociological theory of practice to illustrate and describe *what influences classroom practice amongst PBL facilitators at the UCT FHS*.

3.2 Conceptualising a Theoretical Frame

Research in medical education is claimed to be predominantly situated in the "positivist paradigm", as most researchers are comfortable searching for "scientific truth" in keeping with the tradition of medical science (Pirrie, 2000 as cited in Taylor & Mifflin, 2010).

There is also much literature on research using action research in pedagogical practice or

grounded theory approaches to describe PBL, teaching and facilitation in medical curricula (as seen in the literature above). However, PBL facilitators are people from different contexts who are affected by these contexts and shaped by their socialisation therein. Thus positivist or constructivist research may fall short in describing these aspects.

Education researchers in science and engineering at UCT (Jawitz *et al.*, 2009) have gone through a similar process of critical reflection on research methodology and theoretical positions. They have found that the social contexts in which we work influence our research methodology. Crib and Bignold (1999 as cited in Taylor and Mifflin, 2010) state that medical education research should be “interpretive and reflexive” and should “positively explore cultures and subjectivities as well as those which try to control for them” (pg 15). They suggest that the positivist approach to medical education research is the reason for the confusion around understanding PBL in medical curricula.

Medical education research is expanding as a speciality and the use of social theory is becoming more noticeable. A recent article by Emmerich (2013) states that often those who conduct medical education research are the ones involved in the improvement of pedagogic practice. Their research may be significantly different from research around the sociology of medical education, despite the fact that these different forms of research should inform one another. Sociological perspectives of medical education have been reported as being too “theoretically sophisticated” and there may be a need for the “professionalization of the discipline and for [a] greater level of mutual engagement between theoretical and applied researchers” (Albert and Reeves, 2010 as cited in Emmerich, 2013:21).

This study attempts to bridge the gap between social theory and applied research in medical educational practice of facilitators in a PBL environment in the Health Sciences. To aid the development of the theoretical framework, studies using sociological interpretations to describe teaching in the field of medical education were sourced.

“Social institutions are socially constructed, emerging out of a specific socio-historical context, motivated by socially historically defined priorities and organised on socio-historically sanctioned models of appropriate human behaviour. No institution...takes on a form that is inevitable.” (Paradis et al., 2012:1)

In the study by Paradis *et al.* (2012) the authors take on a constructivist perspective of medical education, claiming that we need to see it in the context of the “societies that produce them” or through the “historical, cultural and social phenomena that shape them” (pg 1). Similarly we can identify medical education as a field made up of many parts that are shaped by these historico-socio-cultural factors, that is, a structural or constructivist theory approach. Viewing medical education through the lens of Bourdieu’s theory of practice, the authors also see the relevance of the “individualistic theory”, which views practice as the relationship between a person’s “learned disposition...and their social positions” (pg 8). In other words, Bourdieu’s work bridges a gap between a structural and individualistic approach to practice.

As my study looks at facilitators as individuals, as well as the historico-socio-cultural influencers of their practice, my theoretical framework is based on Bourdieu’s theory of practice.

3.3 Theoretical Framing- Bourdieu’s Theory of Practice

Bourdieu refers to *habitus* of an individual as ‘all at once a craft, a collection of techniques, references, and a set of “beliefs”’ (Bourdieu, 1993:72). In other words, habitus is the way one does things, how one represents ideas and what one believes. Jenkins (2002) notes Bourdieu’s basic definition of habitus to be the ‘disposition’ of a person, specifically, what characterises a person’s actions.

Bourdieu also claims that habitus is a product of one's social world and thus "contributes to constituting the field as a meaningful world, a world endowed with sense and value" (Bourdieu and Wacquant, 1992:127). Habitus thus arises out of the social context, however, through individuals' actions (agency) it also seeks to shape and contribute to the social context.

As I was interested in describing facilitator perspectives, beliefs and backgrounds that influence their behaviour, I became aware that I was identifying practice as being affected by socially influenced, habituated as well as intended or thought out strategies. Although Bourdieu's theory of social practice, namely *habitus*, *field* and *capital* provides a lens through which to reflect on facilitator actions in the PBL classroom, it will be a limited reflection should I not use a more holistic definition of habitus.

Jenkins (2002) feels that a broader interpretation of habitus is needed, one that "includes a spectrum of cognitive and affective factors: thinking and feeling" (pg 76). Emmerich (2013) also speaks of a "cognitive dimension to habitus" and supports the use of "thinking dispositions" as part of the Bourdieuan habitus lens when reflecting on teaching practice (pg 22). Habitus is usually seen as the "habituated dispositions of individuals" (pg 22) and the main reason for their practices or actions, but Emmerich augments this with the psychology of thought. A facilitator's habitus for example, can thus include his or her thoughts and feelings towards teaching practice.

In my study I wish to describe the underlying dispositions, thoughts and feelings guiding facilitator practice in the classroom, namely their habitus. However, since habitus influences practice and it forms part of Practice Theory, it cannot be studied without looking at field and capital.

Bourdieu divides society into areas of activity called fields. A field consists of

“a field of forces, whose necessity is imposed on agents who are engaged in it, and a field of struggles within which agents confront each other, with differentiated means and ends according to their position in the structure of the field of forces, thus contributing to conserving or transforming its structure” (Bourdieu, 1998:32).

In this study, Medical Education is regarded as the field and the academics, PBL facilitators and students are all agents in the field. Each is positioned differently and engages with each other in ways that conserve or help to change the structure of the field.

Jenkins (2002) offers a more accessible explanation of what Bourdieu means by a field. He states that,

“A field...is a social arena within which struggles or manoeuvres take place over specific resources or stakes and access to them... Each field, by virtue of its defining content, has a different logic...and relevance which is both the product and producer of the habitus...” (pg 84).

Thus if field produces habitus, and habitus influences practice, it is logical to conclude that field in itself can also be influenced by facilitator actions.

In the case of this study the chosen field is the arena of medical education with its recommended, actual, contested or accepted teaching practices. In medical education there are often debates around what constitutes legitimate knowledge, what forms of curricula are effective, what teaching strategies should be used and so forth. In the first three years of the MBChB programme at UCT, PBL is the main teaching approach, and its methodology comes with its own definition of facilitation and description of facilitator actions and behaviours. This may lead to relief, discontent, security and many other feelings and thoughts amongst facilitators, as they engage with the field in relation to own. These facilitator feelings or thoughts guide their actions in the classroom which in turn

may influence the general field of medical education with its PBL practice, that is, field is “both the product of and producer of habitus” (Jenkins, 2002: 84).

Facilitator orientation in the field of medical education may also be affected by the field through which they enter medical education and the assets valued in their particular specialization, for example psychology, teaching, and so forth. This may affect facilitator actions in PBL as they only temporarily enter the field of medical education, but may be most influenced by their own specialised field of practice, where values may differ from the medical education field altogether.

Bourdieu’s notion of *capital* refers to the “distribution of species of power...whose position commands access to the specific profits that are at stake in the field, as well as by their objective relation to other positions” (Bourdieu and Wacquant, 1992:97). More simply put, capital refers to “goods or resources which are at stake in the field” (Jenkins, 2002: 85). As these goods at stake are important and determine the relationships and interaction in the field, it will ultimately affect the field and thus its practices.

There are four kinds of capital, namely *economic*, *social* (connections or affiliations with important others), *cultural* (knowledge) and *symbolic capital* (status and social credit). With regards to this study, capital as a description of possession of assets may play a lesser role in the interactions in the field, while health science knowledge of facilitators as a form of cultural capital is likely to be a major influencing factor of practice. What may have an additional impact is the importance afforded to different forms of capital due to the relationships of power between the occupants in a field, that is, “relationships of domination, subordination or equivalence” (Jenkins, 2002:85). These relationships of power form the internal structure of the field, that is, a “structured system of social positions...a system of forces which exist between these positions” (pp.85).

Similarly, Morberg *et al.* (2012) describes capital as resources used for power.

There may be factors arising from this study that are external to the facilitator and that may not be accurately described by the notion of habitus or possession of capital. These might more clearly relate to power relations, for example faculty pressure and expectations, freedom to practice, hierarchy and positions, knowledge requirements and perhaps even employment equity due to SA's racial demographics. Thus the concept of power relations in the field of PBL practice, which awards importance to certain forms of capital, may be an equally relevant descriptor for my findings.

3.4 Analytical Framework

The majority of studies reflected upon in the literature review used grounded theory approaches to look at facilitator practice in the classroom. This constructivist approach to a medical education study works well when one attempts “to generate a theory that enables an exploration of interactional processes at work within the social world” (Glaser & Strauss, 1967 as cited in Moore, 2008: 151). Although this study does not use a grounded theory approach, it will attempt to explore and explain the social interactional processes at work in the medical educational field and thus generate a description of these processes using a Bourdieuan lens. This lens affords the creation of an analytical framework for working with the data (Table 1).

Table 1: Analytical Framework

	Description	PBL Observation	Facilitator Interview
FACILITATOR HABITUS	Behaviour related to feelings, thoughts, perspectives and background	Cues to facilitator styles e.g. position, tone, speech, interaction and relationship with students, cues to facilitator disposition, personality related strategies	e.g. reported practice and reasons, feelings towards teaching, beliefs, effects of background on personality, demographic factors, other personal factors affecting practice
FACILITATOR FIELD	Field in which facilitator is situated outside of PBL/ spends most of time in, previous field	Evidence of facilitator fields' influence on actions	Description of field, work history, experience, qualifications and duration in these fields
CAPITAL VALUED IN FACILITATOR FIELD	Economic, social, cultural and symbolic capital valued (or other) in facilitator field	e.g. What capital the facilitator appears to have from previous field and how strongly the possession or lack of e.g. cultural capital influences facilitator behaviour	e.g. How strongly facilitators feel about the possession or lack of capital, what capital is thought to be valued

This table, developed from my theoretical framework, was designed to create a description of facilitator actions and the underlying reasons for them using Bourdieu's theory of practice. Conceptualised to bridge the gap between the theory and data, it was improved and adjusted through the research process. A description of each category is provided, which enables the identification of facilitator practice in the data, that is, how these concepts might present themselves in classroom observations and interviews. The framework is essentially the translation of the theoretical concepts into practice and vice versa.

In an interview with C. Mahar (as cited in Jawitz, 2007), Bourdieu claims that his practice theory provides one with a method of studying how social situations or practice in education occurs, which should not be misinterpreted as a general theory for all social situations. Through this analysis I have strived to discover the meaning of social practice as it relates to PBL facilitators in the field of medical education at UCT.

3.5 Bourdieu in Medical Education

Brosnan's (2010) study reflects on the differences between medical schools in the United Kingdom using Bourdieu's theory of practice as a theoretical lens. In this scenario medical education is viewed as the field, within which the players are the different medical schools. These schools compete for economic and symbolic capital, but are distinguished from each other by their varying forms of curricula structures and the staff, as well as the students they attract through their admissions criteria. These differences are seen as their respective "institution habitus" and determine how much capital they can access.

On the one end of the spectrum, there are medical schools whose criteria for student admissions are based on an aptitude test that checks for personal attributes and not science content knowledge. Furthermore they base their medical curricula on "the integration of basic sciences and clinical practice ...early patient contact and an emphasis on student-directed learning" (Brosnan, 2010:648). This is in alignment with the demands of the General Medical Council in the UK, which is responsible for regulating medical education and assessing the quality of medical graduates.

On the other side of the medical education continuum, are schools who value a high research output to gain "academic", economic and symbolic capital which ranks high in the Research Assessment Exercise (pg 649). These schools emphasize biomedical sciences in their curricula and aim to produce "academic and clinical scientists" (pg 649)

and attract students who reproduce this academic success. Their entrance criteria are thus based on high science scores.

Power, or symbolic capital, in medical education is awarded through the possession of legitimate knowledge, the organisational forms of the institute, curricula and admissions criteria and so forth (Paradis *et al.*, 2012; Brosnan, 2010). Legitimate knowledge as a form of cultural capital, is often disputed within and outside of the field by various bodies who arrange themselves hierarchically because of the value they place on it. In the literature it appears that scientific knowledge is valued above clinical knowledge (Brosnan, 2010) while social sciences knowledge is relegated to the bottom of this hierarchy (Albert, 2009 as cited in Paradis *et al.*, 2012).

In comparison, UCT FHS, despite being recognised as a high research output institute, values the biomedical sciences as well as the psychosocial reasoning and softer skills such as patient empathy and a good bed-side manner. The medical curriculum is based on an integrated basic and clinical sciences model with aspects of psychosocial medicine. Students are introduced to patients at an earlier stage, with self-directed and life-long student learning being promoted. UCT FHS was previously known for its production of specialists and academics, whereas in recent years it has moved to focussing on producing generalist primary healthcare doctors. However, a degree of scientific excellence is still promoted with the entrance criteria valuing high academic achievement in high school. Although UCT FHS has made a shift to align themselves with the service needs of government and industry (such as the first university mentioned above) it appears there may be a long way to go to before the goals of true integration, patient-centeredness and producing medical doctors who are more community orientated than bio-medically orientated is achieved. UCT FHS can be understood as an institution that is straddling the two examples, both valuing academic and research excellence with its reward of symbolic

capital as well as the production of community service driven doctors. As Brosnan (2010) finds, institutions that

“have successfully accumulated capital within the existing field structure will resist reforms that threaten to change the values of the field...some institutions see the reduction in scientific content...as threatening to redefine the values of the field” (pg 650).

Perhaps this explains why UCT straddles these positions. It recognises the need to retain symbolic capital whilst at the same time being recognised as observing the government’s service needs. Another likely reason is that UCT may be attempting to transform medical education into a more socially responsive arena.

The literature above has provided insight into the operation and forces at play in medical education fields. It also shows how researchers have applied Practice Theory to medical education and provides a conceptual foundation for this study.

In the next chapter an outline is presented of the methods of working with the data and utilising the theory to analyse the data collected.

Chapter 4 - Methods

This chapter illustrates the process of collection of the various sources of information and how this was reduced to more useable data. It then explains the analysis and review of the data using a framework based on Bourdieu's theory of practice. Ethical considerations in performing the study are outlined.

4.1 Collecting the Data

The multiple sources of data collected to review content covered in PBL include facilitator studies, interviews with past facilitators and convenors, and facilitator PBL case notes.

The first objective was to illustrate and describe dynamics affecting facilitator actions in the classroom, for each of a selection of eight facilitators. As a course convener managing PBL students and facilitators, my intention was to remain as neutral as possible in my research. Thus facilitators were selected from a course in which I have no input and whom I have not managed. The best place to approach such facilitators was in the Semester 2 course (of year 1 MBChB) run by a different department and convenor. .

One of the challenges that I faced in conducting research in my immediate context was dealing with the possible limitation of being an insider to PBL and facilitator convening. However, according to Corbin Dwyer and Buckle (2009), sharing a "membership role" with the participants provided me with "legitimacy" and allowed them to speedily accept my role as the researcher and possibly favour a relationship of trust (pg. 58).

The facilitators attended the same development sessions and case meetings which provided a consistent point of reference regarding their PBL training and course content

briefing. The backgrounds and professional or academic experience of facilitators differed; as seen in the table below. My selection was made based on the responses received from the facilitators themselves, to the information letter that appealed for participants. Out of nine offers I chose eight, only excluding one facilitator with an almost identical background and professional experience to another who had volunteered earlier.

Table 2: PBL Facilitators Interviewed

Facilitator	Description	Experience
Matumo	- 31 yr old black female -rural background	-recently completed PhD in Virology at FHS UCT -2,5 yrs' PBL facilitation experience at FHS UCT
Kelly	- 50 yr old white female -mother, previous family business manager	-degree in Pharmacology -enrolled in PhD at UCT Business School -skills as life coach and life coaching trainer (5 yrs) -2 yrs' PBL facilitation experience at FHS UCT
Zubayda	-62 yr old Indian female	-qualified nurse -Master's in Education (Natal), did not complete PhD (UCT) -15 yr career in Natal in Health Sciences Education including studies, research and PBL facilitation -employed for 2 yrs in EDU UCT as educator -currently facilitating PBL at UCT for 8yrs
Tarryn	-30 yr old white medical doctor -young mother	-qualified at FHS UCT in the PBL curriculum -2yrs clinical work -completed education short-course at EDU UCT -<1 yr PBL facilitation experience at UCT
Bharath	-35 yr old Indian male -moved to South Africa from India >10 yrs ago	-undergrad and Masters in Science in India -recently completed PhD in clinical Science (UCT) -teaching experience as a postgrad student -completed education short-course at EDU UCT -7 yrs' PBL facilitation experience

Molly	-58 yr old white female	-qualified teacher, 2 yrs teaching at high school level -spent several yrs working as librarian -10 yrs' PBL facilitation experience at UCT
Razia	-55 yr old Indian female	-qualified teacher, 9 yrs teaching experience in primary and high school ->9 yrs' PBL facilitation experience at UCT
Elmie	-42 yr old white female	-qualified clinical psychologist with Master's degree -2 yrs' PBL facilitation experience at UCT

This selection incidentally provided me with representatives from a range of cultural backgrounds, facilitation and teaching experience as well as discipline content knowledge.

The facilitators were varied according to race and appeared to represent a sample quite similar to the total group of 21 Semester 2 facilitators. There were only two males, one of whom responded to my email.

Facilitator Studies

Data for each facilitator study was collected by observing events around practice in the PBL classroom (audio taped as a back-up) as well as from facilitator interviews (audiotaped and transcribed verbatim).

The PBL sessions observed took place in the facilitators' and students' natural work setting, that is, in their prescribed tutorial room with everyone usually seated around a large table. One of the report back sessions of PBL discussing content knowledge was chosen (see below). The PBL sessions are structured so that each PBL case scenario is studied over three sessions spanning a two week period, each session being approximately 2 hours and 15 minutes long. The first session is dedicated to the analysis of the case.

During this session a strict 8-step PBL format is followed (as described in Chapter 2). A less flexible, stepwise process is adhered to by students and facilitator thus it would not be useful to this study to give a detailed account of facilitator actions in this session; as they are for the larger part determined by the recommended PBL process. The remaining two sessions, however, provided the most useful data, as these facilitators were allowed to manage the classroom and student learning with more leeway and creativity. At these sessions students return to class after having researched the LOs and report back and discuss the content with their peers. Facilitators guide their discussions and steer their learning process.

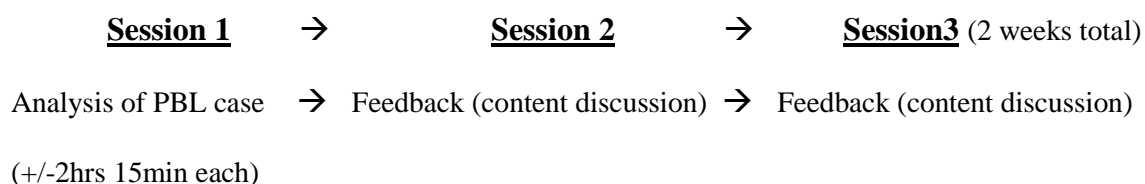


Fig 1: *Illustration of structure of PBL*

My data collection period was during case 1 to case 4, which occurred from the middle of July until the middle of September 2013.

Extensive notes were taken during the observation of all the facilitator comments, speech, actions, body language, tone and so forth. Attention was paid to their interactions with the students, the classroom atmosphere and the student response and comments to facilitator actions. Having an audio back-up in the observations allowed a more accurate analysis of the data, should anything have been overlooked during the note-taking.

This notwithstanding, facilitator views and feelings could not be gauged by observations alone. To best understand the reasons for the observed behaviours, it was therefore necessary to uncover these attributes via personal engagement. Facilitators were

interviewed for approximately 20 minutes using a semi-structured open-ended questionnaire. This was to determine their views on what actions or strategies they used or wished to use in the PBL classroom and why they choose to use them. In an attempt to minimise the time period between the observations and interviews, to ensure recollection of the events, interviews were performed immediately after the observation. The interviews provided a facilitator perspective on what actions were important, why they were important, and where they stemmed from. They were audiotaped and transcribed verbatim, and together with the observation notes, provided extensive raw data for analysis.

With two sets of data, namely a direct account of the actions observed as well as a personal report on their practice, a better understanding of facilitator behaviour and their origins were gained. In order to check for consistency between actions and perceptions, I closely observed the alignment or misalignment of what occurred in the classroom versus what facilitators claimed they did.

Ex-facilitator and convenor interviews

In addition to facilitator interviews, the Semester 2 deputy course convenor and an ex-facilitator who facilitated for several years in the course were also interviewed. The ex-facilitator had also assisted in the monitoring of other facilitators and had been given educational tasks by the EDU and Semester 2 convenors. The purpose of interviewing the convenor was to highlight possible convenor and course views on PBL facilitators and to describe the PBL and facilitator context. The decision to interview the ex-facilitator was made after hearing about her involvement in Semester 2 facilitation and EDU duties. The view of the person who has left Semester 2 facilitation would provide another angle for

consideration. The interviews were not analysed in the same way as the facilitator studies, which formed the bulk of the data.

Both interviews were approximately one hour long and performed using a semi-structured questionnaire. Hand written notes were made on the following issues:

- facilitator contact with the field of medical education and roles in PBL
- their views on what affects facilitator actions in the classroom
- facilitator support and perceived needs for support
- facilitator training format and content
- facilitator monitoring, and the process and purpose of monitoring
- the backgrounds of the PBL training team and convenor expectations of them in managing the facilitators

These notes were analysed and compared looking for similarities and inconsistencies between the two interviews.

Analysis of facilitator case notes and UCT PBL handbook

The overall purpose of the notes given to facilitators at their case meetings and used during the observed PBL sessions was to provide facilitator support. My analysis of these notes was not a detailed critical discourse analysis, but a review of the content of the notes to gain a better understanding of facilitator content knowledge requirements in PBL. I specifically looked at the trigger questions suggested for use during student discussions and compared this to facilitator questions used. The content described in the notes was compared to the facilitator management of the content in the classroom discussion, that is, how they guided and interrogated the students to cover the content in depth.

In addition, the UCT PBL handbook given to facilitators at training was studied to provide an overview of the PBL steps followed and the facilitator PBL strategies recommended by UCT. A description of these documents would aid in building a context for my study.

These various forms of data collected produced qualitative research information in keeping with the illustrative and descriptive approach of this study. Overall, the objective was to understand what influences facilitator practice by making use of the analysis of data collected from each facilitator study, convenor and ex-facilitator interview, or notes analysis. The aim was to appreciate their actions across a wide range of facilitator backgrounds and experience.

4.2 Method of Data Reduction and Display

Although the process of data collection and analysis was a massive task, the ideas of Huberman and Miles (1983) on how to draw valid meaning from qualitative data was extremely useful and time saving.

Huberman and Miles (1983) described an interesting concept termed “*connoisseurship*” where they showed that researchers who were familiar with their research surroundings, who related well to the staff in the surroundings and who understood workings of the system such as knowledge dissemination and so forth, were less easily “misled and distracted” (pg 293). Staff responded better to them and they were better able to manage the data collecting process. This concept resonated with the situation at UCT. I was a colleague or at least a familiar face around the university and understood the process of PBL and facilitation as well as the managing and training of facilitators.

“Self-policing” (Huberman and Miles, 1983:292) was practised by keeping specific folders for each facilitator on their observations and interviews with labels on the state of analysis of the data. Notes were made on each file with every editing for updating to ensure efficient revisiting once I had moved on to other parts of the study.

The observations and interviews of the facilitators produced hours of audiotaped speech that was sent for transcription. Transcription was performed by a research assistant who was not involved in the actual data collection. The transcriptions of the facilitator observations and interviews were of a high quality and included time frames as well as an account of all background noise and speech. As the data collection phase progressed, it was noted that my own observations of facilitators, and notes made in these observations, provided extensive useable data. The hours of transcribed audio data provided no new information, but lengthened the process of analysis. I decided that with future observations, a transcription of the audio data would not be needed. The audiotaped data were stored as a back-up to refer to when needed.

In an attempt to analyse the interview data collected, the verbatim speech in the transcriptions of the interviews needed to be simplified and reduced. Thus the method of dictating field notes as described by Huberman and Miles (1983) was used, allowing me to condense the data into more meaningful paragraphs that were easier to reflect on. The summaries were intended to be more concise and answers to the questionnaire were made direct and clear without all the verbal circumlocution, speech hindrances and other utterances often associated with conversational style speech.

Where specific issues that were relevant, confusing or recurring appeared in the observation notes and the edited interviews, side notes in parenthesis were made so that it could be easily picked out later. Often these side notes were a summary of the data and indicated trends and signals, that is, they served as a form of “coding” (Huberman and Miles, 1983:291).

Once all the data had been coded, the themes were extracted and the trends analysed for each facilitator study while looking at:

- repetition or singular occurrences,
- correspondence and differences between the observation and interview,
- points of tension between themes

4.3 Data Analysis

For purposes of clarity, two different processes of analysing the facilitator habitus, capital and fields were employed. These methods resulted in the same findings each time.

Process 1: Modifying and using my analytical frame

In summary, the data from the facilitator studies were transcribed and collated. They were reviewed, double checked and compared for alignment and consistency and then practically re-arranged in an attempt to categorise the themes discovered through the process of coding. These themes were superimposed on a structured analytical frame that had been created to allow enhanced understanding of the factors affecting facilitator practice. In other words, the extracted information was categorised and framed in the categories of facilitator -habitus, -capital and -field. This process was done in the table format for each facilitator, also allowing assessment of the suitability of the theoretical framework in providing a description for the data.

In addition to the categories in the framework, data was discovered relative to facilitator struggles, inconsistencies and tensions noted in the facilitator's interview. These were actual points of unease that were either spoken of by facilitators or had been found in

the data. I then added a column to the table titled facilitator *points of tension*, to allow for this data to be presented within the frame.

Under each of the headings in the table, for example habitus, capital and field, there were separate sections for recording the observed data and the interviewed data. Actions that facilitators did not account for in the interview were noted, as well as when facilitators reported on an action that was not observed. On reflection of the suitability of my theoretical frame, I was satisfied that Bourdieu's theory of practice would enable me to answer my research question efficiently by providing a descriptive and explanatory lens through which to view the data.

Process 2: Summarising facilitator actions and what influences them

The raw transcribed or hand written data was revisited and a second analysis performed. The second analysis enabled referral back to the categorised tables of individual facilitator data in process 1 for comparison of the alignment.

a) Collating facilitator actions, habitus and capital

The raw data was used to collate a list of actions found in the entire group. This was the first step taken to compare data across facilitators. Facilitators who shared actions or had similar or differing ideas could be identified. The following is an outline of the process followed and its findings.

1. Facilitator actions were named, listed and placed according to themes. There appeared to be six noticeable themes across the list of actions:

- i) The use of facilitator backgrounds in managing the group interaction
- ii) Facilitator interaction with the students
- iii) Actions that promoted student motivation and professional development

- iv) Actions that promoted student learning
- v) Actions around the PBL process
- vi) Points of tension in facilitator actions (i.e. actions not explained or observed)

2. Facilitator habitus across the board were compared, noting whether their actions differed or not in response to their habitus. Facilitator habitus encompassed a range of facilitator personal qualities.

3. Similarly, facilitator capital could be compared across the board, noting how facilitator actions differed or not in response to their capital valued. Facilitator capital valued appeared to have four overall themes:

- i) Capital valued that related to the medical education field
- ii) Capital valued that related to PBL
- iii) Capital valued from outside fields
- iv) A lack of capital, perceived as a problem (i.e. points of tension in capital valued)

4. From both *Processes 1* and *2*, all the facilitator factors observed that were not accounted for in the interview, or for which the underlying reason could not be identified, could be extracted. Thus these points of tension became an important occurrence throughout the data. My definition and interpretation of a point of tension is *any facilitator factor which lacked explanation, which stood out or which contradicted the rest of the facilitator actions or values during the observation; or an actual tension or grievance that the facilitator experienced and mentioned during the interview*. The list of factors that were considered points of tension was also easily classified:

- i) Facilitator points of tension in the field
- ii) Tension around habitus

iii) Tension around capital valued

The process of collating the facilitator actions, habitus and capital in *Process 2* overlapped with the findings in *Process 1* of the data analysis, even though this was done at a later stage. *Process 1*, using the analytical frame, provided the habitus and capital for individual facilitators whereas the *Process 2* collations provided more concise lists for all the facilitators grouped together. These lists were compared with my first analysis and the findings were consistent.

b) Frequency of facilitator actions

I created a table listing the facilitators and their common actions used (as developed in *a*) above).

Table 3: *Table Illustrating and Weighing Facilitator Actions*

	A1: Use of facilitator background	A2: Interaction with students	A3: Student motivation and professional development actions, etc.
Facilitator M1			
Facilitator Z etc.			

I returned to the list of collated actions displayed in *a*) above, populated the table for each facilitator action and noted where it was heavily populated. As a table was being used, it was easy to note how strongly each facilitator used one action above another, or to note which actions were not used at all.

Frequency of specific actions varied between facilitators, for example a facilitator may have fewer actions around promoting student learning, but many around student motivation or professional development. Some facilitators had good range across several

actions and some relied heavily on actions related to their personal or professional backgrounds.

c) Extracting why actions were used

A table was created listing facilitator reasons or explanations for actions in rows and their actual actions in the columns.

Table 4: *Table Illustrating Explanations or Reasons for Facilitator Actions*

Reasons/Explanations	A1: Use of facilitator background	A2: Interaction with students	A3: Student motivation and professional development actions, etc.
Facilitator M1 - interview -observation -other			
Facilitator Z - interview -observation -other, etc.			

The reasons were extracted from three sources, namely the observation, the interview and any other data collected from the convenor interview and text analysis.

The table was then populated for each facilitator, a process that again overlapped with *Process 1*, as well as *a)* and *b)* above and allowed me to verify the analysis once more. The reasons given, observed or verified through the course were then inserted into the table and the trends noted.

d) Classifying reasons or explanations for facilitator actions as they relate to habitus and capital valued

Process c) above provided a list of reasons or explanations for facilitator actions in the classroom. Whether these corresponded to habitus and capital needed to be verified.

I thus created a table classifying the facilitator actions and their reasons as they relate to habitus and capital. The results aligned appropriately.

Table 5: *Classifying Reasons for Facilitator Actions as They Relate to Habitus and Capital*

	Facilitator Actions	Examples of reasons from facilitator studies
HABITUS Facilitator backgrounds such as their upbringing, personality and previous experiences that shaped their dispositions	A2: Facilitator interaction with the students	
HABITUS AND CAPITAL	A1: The use of facilitator backgrounds in managing the group interaction A3: Actions that promote student motivation and professional development	
CAPITAL Capital valued from previous fields and comparison with capital valued in medical education	A4: Actions that promote student learning A5: Actions around use of the PBL process	
POINTS OF TENSION Actions and their reasons not explained or not observed	Personal capital valued versus medical education capital Decreased cultural capital causing insecurity Seeking increased capital due to perceive lack	

Summary

Through ***Process 2***, I was able to check the soundness of my analytical frame and the data analysis performed in ***Process 1***. In both ***Process 1*** and ***2*** the findings for facilitator habitus, capital and points of tension were the same. In both processes I was able to:

- highlight each facilitator's habitus and relate it to their actions, observing which illustrations of habitus influenced facilitator actions.
- highlight the capital valued by each facilitator and relate them to their actions, observing which illustrations of capital valued influenced actions.
- pick up the underlying facilitator points of tension and compare it to the points of tension noted in their habitus and capital.

The overall analytical process served to constantly channel and refine my search through the data and to direct my attention to the evidence. The use of a framework allowed me to classify the findings in order to develop a thorough sociological description of facilitator practice.

4.4 Ethical Considerations

Ethical clearance for this study was granted by the Humanities Research Ethics Committee. In consideration of the approval of my data collection, I obtained consent from the Deanery of the Health Sciences Faculty as well as from the Heads of Departments and course convenors under which the facilitators are employed. All facilitators in Semester 2 were then emailed to inform them of my intentions, provide them with an information sheet and to ask for volunteers to participate in the study. Thereafter the most suitable candidates were approached individually from the list of volunteers and written consent obtained. All data collected were edited to remove the personal details of the participants. This ensured their anonymity and strengthened confidentiality. Facilitators

chosen for the study were given, or allowed to choose, pseudonyms. I also ensured that the study would cause no harm to facilitators regarding their employment status or remuneration, as the study is aimed at obtaining information to benefit and not disadvantage the staff. All staff involved in the study, were informed about the outcomes of the research and how the information will be utilised.

As this study provides a qualitative reflection on only eight facilitators, one cannot generalise its findings to all facilitators at UCT. Thus in consideration of designing and implementing plans for facilitator support, one would have to be careful of development and placement based solely on this study. However, this study potentially paves the way to providing a model for studying and reflecting on the actions of other facilitators both at UCT and also internationally.

In Chapter 5 I present the analysis as individual facilitator case studies.

Chapter 5 – Analysis of Facilitator Studies

This chapter profiles an analysis of the data of the eight facilitators, which is presented individually. For convenience I have referred to the facilitators using a code or label (i.e. the first letter of their pseudonym). Each facilitator analysis starts with a description of the facilitator habitus and the capital possessed, which they bring with them into the field of medical education at UCT. Facilitator practice is then illustrated as it relates to habitus or capital respectively. This differs for each facilitator where practice is first discussed according to which aspect was most prominently found in each facilitator's data. Points of tension were seen in some of the facilitator data and discussed in their study.

5.1 Matumo (M1)

Matumo is a 31 year old, black female who comes from a rural background. She has recently completed a PhD in Virology at UCT FHS and has two and a half years' facilitation experience in PBL at UCT.

From her rural background M1 brings extensive capital that differs from the capital valued in her current field at UCT FHS. She associates her disadvantaged home background with forms of education that possess decreased amounts of economic, cultural and symbolic capital, and associates the field of medical education at UCT with increased amounts of these forms of capital.

'...my background...I'm coming from a rural area so I didn't have an opportunity to go to those like, white schools and stuff, so when I came to UCT my English was really down. People used to undermine me.'

M1's experience refers to her racial identity and perception of higher education institutions whilst having grown up in a peri-Apartheid era. Despite the start of disintegration of racism after the development of a democratic republic in 1994, areas such as higher education may have experienced a slower start to racial transformation. Prior to 1994 UCT was by law only able to register white students, except with special permission, and therefore had only admitted very few black or disadvantaged students. Racial dominance was possibly still present or perceived as a reality at the time of M1's entry to university.

As a PhD student with no income, she joined PBL facilitation. The academic staff in medical education, such as the convenors and Educational Development Unit, may value other forms of cultural capital compared to the staff and discipline specialists in her Health Sciences PhD studies. These forms of capital may include educational or clinical medicine knowledge and teaching experience. To an extent she is not a complete stranger to the field of medical education as her knowledge of science allows her some access, albeit limited.

She initially started facilitation to earn a salary, but later developed a love for it. M1 draws on her background experience and feels that being from a disadvantaged background provides her with vital experience of the social situations presented in the PBL cases. She values her knowledge in science and physiology and although she does not give the students the answers, she is able to better understand the content they are discussing and question and probe them. She feels she has a good relationship with her facilitator colleagues in PBL and is able to share experiences with them and draw from advice given in tea breaks.

i) Facilitator Practice and Habitus

M1's actions in PBL were heavily based on using aspects of her habitus in her interaction with the students. Not only was this observed, but she directly reported on it in the interview. She claimed to be a *'people's person'* and has always had a friendly and chatty personality, previously working as a cashier at a store where she frequently interacted with people. She feels this is in her nature and aids her in her facilitation and relationship-building with the students. M1 often speaks about this relationship and its importance in establishing trust and love between peers. *'...just to tell them, I love you guys. I'm here for you guys, I'm not here to undermine you.'*

It was observed that she interacted with the students on a peer level and not as a superior, always smiling and often chatting socially. M1 allows her friendly personality to shape her interaction with the students and thus her practice. *'...they think: "oh this person is smiling, wow she's sweet!" That automatically makes the environment friendly for them.'* M1 thus draws on the personality aspect of her habitus in PBL.

ii) Facilitator Practice and Capital

Her perspective on teaching is to understand her students and their backgrounds in order to empower them in the classroom.

'...I understand people and I respect people's backgrounds. I understand people are coming from diverse backgrounds, which actually has an impact on our education, on the way we live.'

This appears to directly and consistently influence her actions in the observation and interview. M1's reason for this action is based on her own experiences of disempowerment in the medical education field, through her lack of symbolic capital.

Being black and from a rural lower socio-economic background she encountered struggles such as the language barrier and judgement of her accent on entering the field as a postgraduate health science student. To shield her PBL students from similar struggles,

her aim was to empower them in the classroom by fostering an environment where students get to know one another and each other's backgrounds, where she claims to identify with the rural backgrounds of students and where she fosters non-discrimination. This is an indication that her perceived lack of symbolic capital motivates her practice or interaction with the students to shield them from the same lack of power or discrimination.

M1 also makes use of the PBL process extensively to foster student independence. This action is clearly witnessed in the observation. On interview, M1 verifies that she tries to adhere strictly to the PBL process as she feels it a useful tool to develop student responsibility in preparation for their careers as doctors. She also confesses to having confidence in the university for making use of the process as they have the educational knowledge and have done the necessary research. *'Faculty made a good decision to do this because they knew it would work.'* The cultural capital valued in the PBL arena at UCT includes the correct and efficient implementation of the PBL process, as seen in all the PBL monitoring reports (Alperstein and de Groot, 2009; Alperstein, 2011; 2013). Likewise M1, due to her confidence in the PBL process, values this pedagogic knowledge.

M1 comments on her lack of clinical knowledge and ability to help the students around their clinical questions and often refers to her facilitator notes and laptop to follow the LOs and content. Here there is an admission of the lack of relevant clinical knowledge, a form of cultural capital that appears to be valued in PBL and by the facilitator.

iii) Points of Tension

I pick up on a sense of tension as M1 discusses the university, which represents a high status institution situated in the medical education field. At one point she felt disempowered on entering the field from an underprivileged background, commenting on the judgement of her accent and English level. She describes her own perceived lack of

symbolic capital. Later on in the interview she mentions that she is able to benefit from PBL. Her confidence as well as her English and conversational skills have improved from working with the students and she may even be ‘taking advantage’ of the situation to better her own abilities. Here we see M1’s strategic use of PBL to improve herself despite her perceived deficiency of cultural (i.e. English language proficiency) and symbolic capital.

‘..it’s also improving my communication skills...let me say that maybe I am taking advantage of them, because they are still undergrads and I am a postgrad so I can always use it to my advantage...I’m gaining confidence as well because they listen to me.’

At another point she mentions the judgement of her creative strategies in PBL by the PBL training team during a facilitator monitoring process. She also expresses discomfort about the course rules that prohibit students from making notes in the classroom. Despite these upsetting her, she almost appears to afford power to the PBL training team when it comes to the PBL process and abides by the rules laid down by the course despite her contrasting perspectives. Thus despite what M1 values, she does not challenge the cultural capital valued by the PBL staff (convenors and training team). This is also observed when the students request to take notes in class and M1 appears helpless and mentions the opposing course rules. She however feels, that the PBL staff have better knowledge of the usefulness of the PBL rules and thus M1 follows the PBL process as described in the handbook.

5.2 Kelly

Kelly is a 50 year old white female and mother with a background in Pharmacology and life coaching. She is enrolled in a PhD where she is developing a model for integrating emotional signals in Pharmacology clients at the school of business. She has a total of seven years’ teaching experience of which two are in PBL facilitation.

K has background experience in several different areas and appears to embody aspects that represent each, that is, commerce, science, academia, parenthood and psychology. She now enters the medical education field and appears to draw on capital and experience gained from her background. She has business experience from managing a family business, which possibly contributes to her organisational ability and explains why her PhD falls under business organisation. She has some science knowledge as she completed a degree in Pharmacology and claims this helps her in PBL as she feels content knowledge is the foundation of the lesson. She draws on her experience of parenting and personal experiences in managing life's problems, and uses these techniques in PBL. K has experience in conflict management from her training and work as a life coach and has developed empathy and other personal skills. She also practised as a life coach trainer for a period of four years. She completed a Master's degree in identifying empathy in Pharmacology practitioners towards patients, which could account for her ability to read people and emotional signals as noted in the observation. K also admits that her decision to facilitate at UCT was made to gain more experience for her PhD by integrating the emotional signals of her students. She draws on the support and shared experiences of more experienced facilitators and PBL staff at the training sessions where they learn management techniques. Overall K appears to possess several forms of cultural capital.

i) Facilitator Practice and Capital

K's predominant strategy is around promoting student learning and constructive thinking about the content by probing and summarising the students' responses. This ability to promote constructive and critical thinking is an important form of cultural capital at UCT FHS. Thus the capital that K values aligns with that of the staff in the field of medical education.

K does not appear to depend on the PBL process in the classroom and in fact appears to use more of her own personal strategies. Her perspective on PBL is that *'it is*

brilliant as it encourages students to develop their own knowledge and to not simply assume and use the knowledge of others'. However, her perspective of PBL does not necessarily translate into a PBL strategy and although she values this PBL pedagogic capital in the field, she has confidence in her own strategies and is not reliant on asserting this form of capital.

ii) Facilitator Practice and Habitus

During the observation K appeared to value student motivation and personal development in the classroom. Her nurturing nature guides her to frequently encourage, reassure and compliment the students. She attempts to make PBL fun and creative with special evaluation techniques at the end of the session. She always appears concerned and supportive of the students and confirms this in her interview. K's motto or teaching perspective in PBL is to *'encourage students to have confidence and be creative about knowledge'*. She is keen on personal knowledge building and *'personal discovery through creativity'*. Within the medical education field she appears to mostly orient herself around an area where nurturing and creativity in learning can thrive. PBL is an ideal arena for this aspect of her habitus.

In the observation it is apparent that K utilises aspects of her habitus that are shaped by her role as a mother, allied health professional and life coach, in her interaction with the students. She is able to pick up the students' emotional cues and is attentive and insightful. She confirms this in the interview by suggesting that she uses her *'intuition'* and *'gut feeling'* frequently to gauge the students' responses and manage the class.

Her ability to *'relax and calm'* herself as well as her confidence allows her to better *'integrate content knowledge'* and understand and manage the students' content discussion in class. This ability to influence her own nature helps her with her knowledge and ability to facilitate in the classroom.

5.3 Zubayda

Zubayda is a 62 year old Indian female with a nursing background and 15 years' PBL experience. She has an extensive education background with a Master's degree in Education.

Z reports to have spent part of her career in professional healthcare practice with a degree in nursing and a few years' clinical experience, suggesting she has experience in care-giving and working with people in difficult environments. She thus possesses health care knowledge or cultural capital as well as having developed aspects of her habitus through her experience in care-giving. Drawing on her health care experience, she then moved to the academic field of medical education where she spent time as a post graduate student and researcher. She completed a diploma in education and a Master's degree in Natal researching student preparation for PBL. This started a 25 year academic profession around PBL and student development as well as PBL facilitation. Thereafter she became a full time staff member at the UCT FHS Education Development Unit, spending eight years facilitating in PBL and working as a senior lecturer. She also enrolled for, but did not complete, her PhD which was based on providing criteria for teachers to follow in PBL. Z has spent a great deal of time gaining PBL educational knowledge and skills, the form of cultural capital that is highly valued in the medical education field at UCT. However, due to tensions in the field she left her academic post to pursue teaching, her real passion, which she now does full time. She nevertheless remained at UCT FHS in the PBL setting to which she is invested.

i) Facilitator Practice and Capital

Z makes extensive use of the PBL process as noted in the observation and in the interview confirms that it aligns with her teaching beliefs. She also claims that PBL at UCT is an '*excellent process*' and she follows it accurately as she believes in '*consistency in*

learning', which the PBL process provides. Thus the cultural capital that Z values, is the same as that of the university, namely a belief in PBL pedagogy.

Z appears invested in student motivation by encouraging and complimenting the students. She feels that her primary concern as a facilitator is to make students feel '*safe and happy*'. During the observation Z mentions a quiz game that the students will be playing during the following session. She confirms in the interview that her aim is to make PBL '*fun and enjoyable so that they enjoy learning and come back for more*'. Her possession of education knowledge on student learning allows her to easily orient to the same capital valued in the field.

ii) Facilitator Practice and Habitus

Z claims to be '*confident and easy-going*', which aids her well in her interaction with the students. In the observation, she does appear to be very confident, relaxed and reflective, rarely interrupting or asking many questions during her management of the student discussion. This may be a result of, and also result in, the obvious student independence. The students appear confident and interact well, but often become side-tracked. Z mentions in her interview that PBL is student and student learning focused and not about the teacher. Thus her personality as a confident and more observant individual (an aspect of her habitus) suits the PBL situation well.

During the observation Z quietly manages critical incidents with a student on the side. She is assertive yet polite and the student responds well to this. In the interview she states that it is important to '*show the students respect and consideration and they will reciprocate*'. She also feels that one has to display confidence in managing students so that they are aware of the boundaries hence she makes sure to enforce the group's ground rules, which are created at the start of the semester. She refers to this process as '*following*

a code of ethics just as doctors have a code of ethics to abide by'. Z brings her habitus into the classroom and in her interaction with and management of the students.

iii) Points of Tension

Z values my research on facilitators as she feels it will address certain issues around PBL and teachers. She feels more value should be placed on teachers and teaching at the university as *'UCT is a predominantly research-based institute'* and does not afford the same merits to teaching. There appears to be tension between the dominant symbolic capital valued at UCT and that valued by the facilitator.

Z also mentions that there is a lack of university support, especially for new facilitators who may have anxieties about facilitation. As an older, more experienced facilitator she often encourages the new facilitators.

Z's perspective on good facilitation is that psychologists make successful facilitators as they *'understand people'* and have skills to deal with them. She also feels that medically trained facilitators *'teach'* in class, but the emphasis should be on the students and allowing them to learn independently. Although Z is neither a psychologist nor a doctor, she appears to be making an assessment on the form of cultural capital and habitus that should be valued in the field.

5.4 Tarryn

Tarryn is a 30 year old white medical doctor with a two year history of clinical work. She was also a UCT medical graduate in the PBL system and has some experience teaching medical students. She plans to further her teaching career at UCT FHS.

T was a medical student for six years, with access to the field of medical education at UCT. She is thus familiar with the educational system, structure and operation of the field. She left UCT FHS and practiced as a medical professional for over two years,

gaining some experience working with students in the clinical setting (clinical cultural capital). She then left medical practice to start a family, but eventually returned to the field of medical education at UCT as a teacher.

T completed a clinical educator short-course at UCT FHS to formally develop her educational knowledge. T loves education and hopes to continue the UCT medical education experience, furthering her teaching career and thus gaining even more access to the field. She claimed to have had positive experiences in PBL and describes PBL as an *'excellent tool'*. T would like to be part of the *'successful process of teaching future graduates'*. She also claims to identify with the UCT PBL student experience such as getting to know her classmates and working with different personality types; an important skill for work in later life. She draws on the experience of other facilitators in the team on how to evaluate and do the case wrap-up. T thus appreciates and supports the same forms of capital valued in the field at UCT, these being symbolic, cultural, and social.

i) Facilitator Practice and Capital

T's predominant action in the observation was the promotion of student learning and constructive thinking. She thus aligns her values with the cultural capital important in the field, that of knowledge and ability to promote higher learning.

She made extensive use of probing and asking trigger questions; sharing her medical knowledge to augment clinical scenarios as well as giving students advice on approaching the content. Apart from cultural capital related to student learning strategies, T also values clinical knowledge as a component of facilitation. T confirms this in the interview when she says:

'I probe a lot, ask them frequent questions; ask them to explain the relevance of the material. I ask them to link experience to clinical situations...I like to make things clinically relevant as that's what I would have appreciated as a student, to know why I was

learning something, why it was important to know... They all want to be good doctors, so... learning content is towards that goal... it focusses and encourages them.'

T applies some PBL principles, but this is overshadowed by her interrogation of the content. She mentions that PBL is a good educational tool and that she has '*fond experiences*' of it from her student days. She also testifies that '*learning through the PBL system enables deep and life-long learning*' so she makes use of it in the classroom along with her own creative techniques. T's actual experience of PBL as a student provides her with insight into the predominant form of cultural capital in the field and allows her to negotiate and thrive in her facilitation and interaction with the students.

ii) Facilitator Practice and Habitus

T appears to have a good relationship with the students, also complimenting and encouraging them. She is attentive and chats and laughs with the students on a more social level, taking an interest in them as individuals. T confirms that she tried her best to make the PBL classroom a safe space where students feel valued and that their '*contributions are important*'. She feels this will enable them to '*reach their full potential*' and that a good relationship with the students has a positive effect on her facilitation and the group interaction, promoting '*respect*' and '*constructive criticism*'.

Aspects of T's habitus as a social, friendly and concerned individual, allows her to ease into facilitation and student interaction.

5.5 Bharath

Bharath is a 35 year old Indian male, born and raised in India where he completed his undergraduate and postgraduate studies in science. He recently completed a PhD in Clinical Science and Immunology at UCT and also enrolled in a clinical educator course

run by the Educational Development Unit (EDU). He has experience of teaching and tutoring science students in India and seven years of PBL experience at UCT.

B has academic experience as an undergraduate and Master's student in the clinical sciences in India and was often asked to teach undergraduate students or offered to tutor high school students. He mentions that he is passionate about teaching, and feedback from his teachers in India is that he possesses good teaching skills. He has experience in the health sciences field at UCT where he completed his PhD. During this time he also facilitated PBL in different courses to earn extra money. B enjoys teaching and education, has substantial facilitating and tutoring experience and has assisted many departments at UCT FHS with assessments. He feels one is always capable of improving one's teaching and career and should strive to do so, thus values student and staff feedback about his facilitation. B finds reflection on one's teaching important as well as research around PBL.

'..so I had to adapt my teaching skills in order to be an effective facilitator...no matter how many years I am doing this, every time I receive the evaluation of students, that is the guiding force for me...what can I still improve on?'

'I reflect...that really helped me in terms of next time I have to maybe...'

B brings with him certain ingrained values from his home and life experience, such as 'honesty', 'respect' and 'consideration for mankind and the environment'. He also feels that his teachers at the university in India were professionals, intellectuals and great researchers, but always maintained their humility, a value which he strives to embody.

'honesty is the best policy...Also you have to hold up those values where you come from, that is one thing I'd like to highlight.' He nevertheless states that one has to also be adaptable to, and cope in, any situation just as he had to do when emigrating from India to South Africa.

i) Facilitator Practice and Habitus

B's predominant actions in the classroom appear to encourage student independence and responsibility. He often checks whether the students are happy with the group suggestions and never interrupts the students' discussion, but waits until they have completed speaking before probing them. This seems to create an atmosphere of consideration and professionalism in the classroom as the students respond in the same way and do not tend to speak out of turn. B claims that his strategies are at all times based on respect and consideration for the students and the classroom environment, and this aspect of his habitus is frequently witnessed in the observations. He feels that one should '*give respect and take respect*' and that '*empowering*' students is important because as health professionals they would have to make independent decisions. His aim is to use the PBL time constructively in order that students '*gain a sense of accomplishment*'.

While he had himself previously been a strict facilitator, through experience he has adapted his teaching style to be more '*nurturing*'. Whilst encouraging group work and acceptance, B is also sensitive to different cultures and socio-economic backgrounds and avoids student exclusion. B also claims to be friendly and encourages open relationships, sharing with the students and offering support where needed. This allows the students to trust him.

These strategies for student learning are developed and enhanced by B's inherent home values or habitus. It is evident in the observation that his habitus is the greater influencer of his actions and interactions in PBL.

ii) Facilitator Practice and Capital

During the observation B makes good use of probing the students and asking them trigger questions. He also at times offers the students guidance on approaches to the content. During the interview, B expressed the importance of guiding students in the right direction

by ensuring that they are engaging with the knowledge in depth and not being '*surface learners*'. B's cultural capital or scientific knowledge allows him to guide student learning. During the interview he reported that the students comment that he asks good questions in class and highlights for them '*what they know and what they still need to learn*'. He also appears to employ some strategies around the PBL process, but does not appear dependent on them. B expresses confidence in the PBL process and its steps and says it works well, indicating an appreciation of the capital valued in the field, but not a dependence on making use of it.

5.6 Molly (M2)

Molly is a 58 year old white female with a background in education and librarianship. In addition to two years experience as an English teacher at a high school and several years experience working at a library, M2 has 10 years experience in PBL at UCT.

M2 entered the field of medical education when she started facilitating in PBL 10 years ago. She has extensive experience working with medical and allied health students in a tutorial and PBL setting. Her background qualifications are a Bachelor of Arts degree majoring in English and Psychology with a Diploma in Education. This career choice is probably related to her enjoyment of people and the calm personality she reported to have at the interview.

i) Facilitator Practice and Habitus

The predominant action noted during the observations of M2 in the classroom appears to stem from her assertive teacher-like role and formal disposition. The classroom atmosphere is orderly and the students appear to take responsibility for their own discussion. Overall she appears to be a reflective and quiet member who does not interact much, but allows student independence and self-management. M2 asserts that the key

aspect to facilitation is to be an observant participant in the classroom. *'...you're not in charge, you're not the focus. You're there just to enable things and for the learning to take place.'*

M2 says her good listening skills are second nature to her and proves invaluable during two and a half hour sessions. *'I think I'm a good listener and I think that helps in PBL as well.'* M2 represents a facilitator who largely expresses aspects of her habitus in her facilitation style. She feels her calm personality also helps the nervous students in the class.

'I think I'm a fairly sort of calm personality and I think that also helps the students, ...a lot of them are nervous...having a calm kind of temperament makes them feel like "I can manage this"I think those kinds of things help my facilitating.'

Generally M2 appears attentive to the student interactions during the observation, picking up when they are tired. She appears concerned about the students' learning and participation by ensuring that all are heard and have a chance to ask questions. M2 feels her relationship with the students, particularly fostering trust is important for student morale and interaction with each other. Again, M2's habitus influences her relationship and interaction with the students and ultimately her actions in the classroom.

ii) Facilitator Practice and Capital

M2 makes use of the PBL process and often interrupts the discussion to ensure that the students are following the procedures correctly. She also appears to pay extensive attention to her facilitator notes, which are highlighted and scribbled on as an indication of her having studied them. During the interview M2 stressed the importance of following the PBL process for certain skills development, failing which student learning would be compromised.

'I think that people stick quite closely to it, I would hope that anyway because it's very much promoted. If you look at all our training sessions, they're all linked to an aspect of PBL so you shouldn't be going against it because that's what's being taught, that's what's expected of you.'

Here she displays a great appreciation for the PBL process, not only promoting what is valued by the university, but orienting herself and her actions to it.

iii) Points of Tension

M2 claims to make use of the facilitator notes to locate '*discrepancies*' in the students' content discussion as she is not a content expert. Her lack of science or clinical knowledge causes insecurity and limits her movement or progress in the field. She comments that she will not work in a PBL setting post first year MBChB as she would feel out of her depth around the content. During the observations I noted that where students were conflicted about pronunciation of certain medical terminology, M2 did not clarify it for them.

5.7 Razia

Razia is a 55 year old Indian female with a BA honours degree in Arabic. In addition to more than nine years' work experience in PBL at UCT, she has seven years' teaching experience at primary school level and two years' teaching experience at high school level.

Although she may have knowledge about the principles of education, R confesses to a lack of science content knowledge and compares herself unfavourably to her other colleagues in the medical education field who know the content. She thus appears to place greater value on content knowledge, despite her experience as a school teacher and her skill in managing students.

i) Facilitator Practice and Capital

R appears to use the PBL process frequently and strictly, in particular checking the students' understanding and having them reflect on their learning. R appears attentive and engages the distracted students by making sure that their questions are addressed and probing them on their knowledge. R maintains that she is supportive of the PBL process and tries to use it fully with minor alterations, for example adding creative touches to the feedback to make it less monotonous.

'I do try to follow it to the tee, but sometimes you do try and tweak some things, you know, when it doesn't work for you. But most often I do try and follow it and I think maybe because of my teaching background you're taught to do everything properly. Sometimes you can be a bit dogmatic also but you try and follow it as closely as you can.'

She feels she has experience in working with students and in facilitating in other courses as well and draws on knowledge gained in PBL training to ensure that students *'follow the process and get things done'*. From the interview it emerged that she appears to value the PBL cultural capital and possesses educational habitus as well as knowledge about student learning, which assists with her strategies in PBL.

ii) Facilitator Practice and Habitus

R claims that her facilitation approach *'matches'* her personality. *'I'm quite easy-going so it's more about the student than myself.'* R thus aligns this aspect of her habitus with her approaches to PBL.

R feels her experience plays a role in her facilitation strategies and her relationship with the students when she states:

'...experience comes with working with students, and I think my teaching background also helped...Also I think age really helps.'

'I think I have a good relationship with my students and I think maybe it's because I'm older, so it's a formal relationship.'

R also mentions an incident with a student where the student's personality had helped her to develop alternative approaches to classroom management. This experience ultimately affected her actions and behaviour in PBL in a positive way. *'She was also very strong and because I'm a bit soft she thought she could override me and let the group do whatever she wanted to do. So that was a challenge but it actually helped me to be more assertive.'*

This incident illustrated a clash between different personalities and how this led to changes in strategy in the classroom.

iii) Points of Tension

R admits that as a result of her lack of biomedical content knowledge (or cultural capital), she *'actually really gets lost'* during the student discussions and is unable to ask them trigger questions. She relies on the facilitator notes to help with this.

However, she sees some benefit in not having the knowledge as it may *'help the students'*. At one point during the feedback the students appeared confused about a concept. R was unable to help them or ask them guiding questions to get to the answer, but instead referred to the PBL process of 'flagging' where the students note the problem and go and research it. It appears that R values the possession of science or medical cultural capital and relies on the course content notes. She however questions whether it is essential to possess this capital in the PBL arena or not, as this was not an elementary requirement for employment as a facilitator.

5.8 Elmie

Elmie is a 42 year old white female, practising as a clinical psychologist. She has an MSc in medical applied psychology and experience in neuropsychology, health counselling and working with groups of dyslexic people. She has two years' PBL experience at UCT and joined as she wanted to try something that varied from practice; thus she is situated in the professional field of clinical practice. In facilitating at UCT, she entered the field of medical education where she draws on her knowledge of psychology theory and clinical practice to enable the learning of future clinical practitioners. She uses her understanding of the interactions between people to influence her education strategies and to work with the PBL process.

i) Facilitator Practice and Capital

In the observation, E appears to make extensive use of the PBL process, but also shows interest in student learning that extends beyond following the PBL steps. She gives students direction regarding the depth to which they need to learn the content; encourages them to cover the detail and often checks their understanding of the work and reinforces their learning during discussions. E manages the class when needed, but remains encouraging and compliments students, encourages student responsibility and makes use of fun creative tools in the wrap-up session. During the interview she commented: *'I try to create an environment suitable for the model of PBL. I try not to intervene if I don't need to, not to distract...'* E states that it is not her role to be a tutor and that she wants to *'facilitate their thinking styles'*.

E bases her strategies on helping the students to learn rather than *'just finishing their LOs'*, which is what she assumes the university requires. She appears to have cultural capital in the form of clinical knowledge that she uses to stimulate the student discussions. She creates clinical scenarios and trigger questions that link to the case and

illustrates her neurological insight. E claims that through her background experience in psychology, she understands the ways in which students think and knows the kinds of questions to ask that will stimulate specific thought patterns. She also draws on her content knowledge in neuropsychology.

‘...my knowledge of neuropsychology in the way they think and what kind of question I need to ask to stimulate a specific kind of thought.’

E clearly values educational and clinical cultural capital and student learning. She also makes use of her knowledge gained as a psychologist around thought processes and group work to help her with her strategies in the classroom. *‘...my experience of theoretical and psychological group therapy...also my skills from one-on-one therapy, when I have to influence the students in a way.’* E wonders how facilitators with no psychology background cope with attending to difficult situations in the classroom. E also has content insight into neurology, which she is able to use to stimulate student learning. However she claims to be *‘more psychologically than medically minded’*.

E was observed in PBL as part of a research project by a PBL staff member and valued the *‘good advice and practical tips’* that she received.

She also received pointers on how to reduce the workload of the students as they were unable to finish the content discussions in time. E values the input from the PBL staff and uses this to her advantage to improve her PBL knowledge and strategies, gaining not only cultural, but also social capital.

ii) Facilitator Practice and Habitus

E feels that her background in Psychology and the extra year of medical studies that she completed, allows her to *‘stand in their shoes easily’*. She sympathises with the students *‘difficult’* medical studies and *‘large workload’* at such an early point in their lives. E’s

understanding of the student situation and its hardships stems either from her own background or from experiential habitus as a medical student.

E is friendly with the group, but still appears in charge and is assertive. E comments: *'I will intervene forcefully if needed and... I will format the session and I will move students around'*. However, she also mentions, that she was *'initially quite motherly...I would look after them really well which becomes my style easily'*. She feels that *'becoming their friend'* or *'going down to their level'* does not work. She now feels able to be a mentor by guiding the students in *'the right direction'*. E's inherent nature as a motherly figure directly influenced her initial actions in PBL, although she later adapted her strategies. This adaptation also appears to reflect aspects of her habitus, which is friendly but assertive.

E is able to multitask comfortably by listening to the discussion; observing the students; reading and making notes in her facilitator session guide; following the content discussion and intervening. This may link to her experience and confidence in working with people and groups, again a product of her field of practice.

E is confident and appears very comfortable with her facilitation and interaction with the group.

She has a strong presence in the classroom as she alternates between standing and observing the student discussions and scribing; walking around the classroom and putting up scribe notes and leaning into the table where students are working.

She intervenes frequently and participates in the group discussion but is still unobtrusive. E feels she is *'in the background but with a heavy presence...I will be around...I think I have a strong presence and I make myself known non-verbally'*.

The above aspects of E's habitus are deeply imbedded in her facilitation practice.

iii) Points of Tension

E agrees with the standardised method of PBL and feels it should not be changed.

However she also says she feels PBL is '*valuable as an overall teaching strategy*' but that it should be less '*regulated*' by the PBL staff to ensure the process revolves around the group interactions and not the process. E feels that you need '*a very good facilitator who knows what's in the interest of the group*' and who is able to identify this. Although she values PBL as an educational strategy, she values facilitation and knowledge of group interaction more highly.

Despite the various forms of cultural capital that E possesses and appears to make use of in the classroom, she debates whether it would be useful to '*articulate content issues better*' as it may help students if she had more content knowledge, and she would not be limited to asking the questions from the facilitator notes. She would be able to '*question and guide their thoughts*' if she knew more Human Biology. On the other hand, she states that this is not really her goal and may get in the way of student learning.

5.9 Summary

Table 6: *Descriptive Summary of the PBL Facilitators Interviewed*

PBL Facilitator	Background and Habitus	Capital possessed (cultural)	Fields where capital gained
Matumo	-‘people’s person’ -rural background -health science background	-health science knowledge -2.5 years PBL development	-Health Sciences (UCT) -Medical Education (UCT) -Rural South Africa
Kelly	-‘nurturing’ -parenting background -background in business, pharmacy and life skills training -PhD student	-health science knowledge -business skills and knowledge -life skills, knowledge and teaching -2 years PBL development	-Health Sciences -Business (academic and commercial) -Personal development -Medical Education (UCT)
Zubayda	-‘confident’ and ‘easy going’ -background in health sciences and PBL	-clinical nursing experience and knowledge -25 years PBL knowledge, research or teaching -also possesses social capital from experience of working in field of Medical Education at UCT	-Health Sciences and clinical practice (Natal) -Medical Education (Natal and UCT)
Tarryn	-attentive and sociable - young medical doctor -background as recent UCT medical student in PBL	-clinical and health sciences knowledge - <1 year PBL development -clinical educator course	-Health Sciences (UCT) and medical practice -Medical Education (UCT)
Bharath	-professional -‘adaptable’, ‘nurturing’ an ‘sensitive’ -ingrained values from background in India and culture : ‘respect’,	-health sciences knowledge and teaching -7 years PBL development -clinical educators course	-Health Sciences (India and UCT) -Medical Education

	‘consideration’, honesty’ and ‘humility’ -background in health sciences		(UCT)
Molly	-teacher-like, formal and polite -‘good listener’ and ‘calm’ -background in teaching and as librarian	-education and teaching -10 years PBL development -people skills and working with diverse students	-Education -Humanities and education -Medical Education (UCT)
Razia	-teacher-like, formal and friendly -easy-going’ and ‘soft’ -background as a teacher	-education and teaching -9 years PBL development	-Education -Medical Education (UCT)
Elmie	-confident with strong presence, assertive -background in clinical psychology -1 year as medical student	-clinical psychology knowledge, neuropsychology knowledge 2 years PBL development	-Psychology and practice -Medical Education (UCT)

Facilitator practices were based on their backgrounds, their relationship and interaction with the students and staff, student motivation or development, student learning as well as the PBL process. The factors that appeared to influence practice varied and included:

- facilitator beliefs, teaching perspectives and mottos; facilitator desires and experiences as medical students; facilitator inherent natures and backgrounds; facilitator education principles; facilitator desire to form relationships with the students
- stimulation of student learning and content acquisition; skills, creativity and thought processes; facilitation of student growth and empowerment.
- university values around PBL and the promotion of responsible, ethical and independent doctors; facilitator discipline knowledge

- facilitator response to student behaviours

During the facilitator studies, it was clear that aspects of facilitator habitus shaped the facilitator-student relationship and directed actions and behaviours in the classroom. Their natural tendencies to do things or behave were actually witnessed during the observations and reported upon as facilitator strategies or as influencing their strategies during the interview. Facilitator actions in the classroom were also influenced by student behaviour, as was seen in the critical incident between Razia and her student).

Certainly facilitator actions were influenced by the capital that facilitators valued from either the medical education field or PBL and possibly too from the field within which they practice or have practiced. Similarly the capital valued by the UCT PBL staff made an impression on some of the facilitators who adopted the same values. There were also aspects of facilitator practice that were shaped by the facilitator entering the field of medical education from their own fields of practice.

In almost all the facilitator studies there were tensions or problems that the facilitator commented on or had been observed. These predominantly occurred due to various forms of capital valued from the various fields, as well as the different degrees of valuing of this capital. Overall the tensions noted were related to all three key areas of interest in this study, specifically the medical education field at UCT; the forms of capital valued and the individual participant habitus.

Chapter 6 – Discussion

6.1 Understanding What Influences Facilitator Practice

In an illustration of Practice Theory, Bourdieu describes the interactions between habitus, capital and field in his analogy of a ‘game’ with players in a field, the stakes valued and the forces or competition between players (Bourdieu and Wacquant, 1992). I illustrate below the complex interactions between facilitator habitus, capital valued and field and how this relates to practice in PBL. Although these aspects cannot occur individually I will describe them as they predominantly present in this study.

Aspects of practice that predominantly relate to habitus

My interpretation of habitus through the study is facilitator disposition and the enactment of these dispositions. Habitus is also influenced by the facilitator’s past and present home. Pertinent factors are social spheres, which encompass their upbringing and experiences, interaction with others, life values, culture and family life. Habitus can also be understood as gaining experience and knowledge whilst working in a field, namely ‘experiential habitus’ (Jawitz, 2007). In the case of the PBL facilitators, their habitus could be influenced by their experiences and backgrounds in education, medical practice, psychology and others.

Through my analysis it is clear that the facilitator actions observed in the study are influenced by the unique aspects of their habitus. For example, Matumo reports on how her naturally friendly personality combined with her past experience of interacting with people as a cashier, aids her in building relationships of trust and care with the students in PBL. Observation of Matumo’s practice shows how these elements form part of her habitus and how much value she places on them in facilitation.

The other facilitators who similarly acknowledge key elements that form part of their habitus and influence their practice are Bharath and Molly.

Bharath's ingrained values of respect, consideration and humility are apparent in the classroom. He considers these values important not only in the classroom, but as a way of life.

Molly's listening skills and calm and attentive nature aids her strategies around promoting student independence and responsibility for their own learning in the classroom, while her teacher-like role ensures order in the classroom.

When it comes to facilitators who have gained experience and skills in the fields in which they practice, we can clearly see the accumulated features of habitus in Kelly, Razia and Elmie. Kelly brings her ability to read emotional cues from her studies as well as her skills as a life coach and trainer of life coaches into the PBL classroom. She is able to pick up the levels of motivation from the students and subsequently motivate and encourage them, as well as calm herself so as to best apply her content knowledge.

Razia has spent years teaching at schools and is clear that she embodies the demeanour of a teacher-figure with an authoritative yet nurturing aspect to her habitus. She stands while addressing the students, is assertive but soft spoken and is clearly respected by the students. Elmie on the other hand is a clinical psychologist with experience and skills that she reports to use with the students such as influencing their group interaction and managing critical incidences while at the same time encouraging the students and stimulating their thoughts around neural mechanisms in the content discussion.

All eight facilitators clearly display aspects of their habitus through their classroom practice, albeit some doing so more than others. Thus the individual habitus of each PBL facilitator uniquely influences the teaching and learning experience of their particular

student group. However, it is impossible at this point, and also not the purpose of this study, to imply which aspects of habitus lend themselves to better learning opportunities for the students or which facilitator actions are better than others. However, this study clearly shows that aspects of habitus as an influence of action in the classroom (as seen to a greater extent in the studies of Matumo, Bharath and Molly) can enhance the social and even psychological aspect of the learning experience. These include the relationships between facilitator and students as well as student motivation and responsibility.

PBL facilitators in Semester 2 enter the field of PBL from various backgrounds such as clinical, teaching, academic or other, and have unique traits in their habitus formed from their experiences and exposure in these areas. This study clearly shows that these traits are shaped by the various combinations of their experiences and exposure, which in turn shaped their actions in the PBL classroom, resulting in differences in capital valued and recognised in PBL and the field of medical education. Facilitator habitus may also offer light as to why and how facilitators have attempted to gain access to the field of medical education. These factors are discussed in further detail below.

Aspects of practice relating to the interactions between capital and field

For the purposes of this study, capital is defined as it relates to PBL facilitators at UCT, see Jenkins (2002) described in Chapter 3. Capital is thus understood as the resources that are valued in the field and more specifically as seen with the study in the PBL environment within the Medical School at UCT.

Economic capital is only mentioned briefly by two facilitators as having some initial importance to them on entering the PBL environment. Both Matumo and Bharath initially joined PBL facilitation to earn a living while completing their PhDs in the health sciences. They both equally mention that within this environment their focus changed

with social and cultural capital becoming more important to them. Matumo loves working with the students and one gets the impression that her relationship with them increases her social capital in the field. It affords her a sense of self-importance that contrasts to her background where such capital was not necessarily valued.

Through his lengthy experience as a facilitator, Bharath has strengthened his passion for teaching and seeks to further his own knowledge around education.

In the case of social capital I again refer to the study of Matumo. She claims to have entered the PBL classroom valuing her relationship with the students. She even claims to learn and grow as a teacher through interacting with them and to this end describes an almost symbiotic relationship with the students. Matumo also seeks the consideration and respect of the PBL staff and conveys her disappointment at the lack of understanding between PBL staff and facilitators. Despite her contrasting beliefs, Matumo follows the required PBL strategies in the classroom, thus affording the PBL staff increased amounts of symbolic capital or power.

In the case of Tarryn, she greatly values working as a facilitator in PBL at UCT and would like to strengthen her ties with the academic staff and students and be a part of the successful output of medical graduates. She is excited at returning to UCT and feels that she is able to identify with the students who are essentially a vital part of the field. Thus, identifying with the student situation influenced how she guides their learning in the classroom, namely, based on her past expectations as a medical student.

Apart from Matumo and Tarryn who voice specific issues around social capital, almost all the other facilitators report the importance of it as well. They claim to have very good relationships with their colleagues in PBL and to learn and draw from each other's knowledge and experience around facilitation to help them with strategies in the classroom.

Zubayda mentions that as a more experienced facilitator, she is involved with supporting new and younger facilitators. Zubayda appears to be more immersed in the field of medical education than the other facilitators, which could account for her sense of responsibility to the staff, the students and the PBL process. She is also the only facilitator who was at one stage fully part of the medical education field at UCT, but then cut her ties with the academic field to focus on her passion for teaching. She subsequently occupies a smaller area of the field which is associated with the possession of a lesser amount of social as well as symbolic capital. She compensates by building a more valued relationship with the students and colleagues within PBL who become her almost sole focus at UCT, rather than with the other academic players.

Symbolic capital is the one form of capital least mentioned or observed as influencing the facilitator practice. This is noticed in the case of Matumo where she values how the PBL staff and students see and appreciate her role, as well as with Tarryn, where she desires to be a part of the field of medical education which inevitably increases her status or social credit in the field. The reason for symbolic capital playing a small role in determining actions could be due to the fact that the facilitators are not permanent or even full-time staff members or players in the field. Although their role is vital to the successful promotion of student learning as commented on in the interview with the Semester 2 convenor (September 2013), they appear to have a lesser role, occupy a lesser space and have less influence on the field of medical education at UCT.

The various forms of cultural capital valued between the different facilitators and between the staff and the facilitators, were found to be most influential when it comes to facilitator practice in the classroom. Each facilitator may value and possess different forms of cultural capital or discipline knowledge. This study has revealed that facilitators value and make use of the cultural capital prominent in their fields of practice. For example, Elmie is a clinical psychologist who speaks of using her knowledge of

psychology and neuropsychology to help her with actions in the classroom, such as *'stimulating specific kind of thought'* in students and *'influencing'* their learning. She debates whether or not she should be valuing biomedical knowledge as she does not possess it. Conversely, she does not necessarily consider this to be a useful asset.

Similarly, facilitators who do not possess biomedical knowledge either feel a sense of insecurity or debate its necessity. Molly claims that to facilitate students in any year other than the first year would place her out of her comfort zone, due to her lack of relevant knowledge and the increasing student possession of it. Despite possessing educational knowledge or capital as a school teacher, Razia questions her knowledge base unfavourably to those of her PBL colleagues who have biomedical knowledge.

'A lot of facilitators actually have some background with regards to Biology or Psychology and because I am from a different genre like Arabic, ...although I do have the teaching experience...I feel like maybe I'm not having enough of that knowledge, ...although I do understand that not having all that knowledge actually helps the students.'

These findings relate to the study by Moore (2008) discussed in the literature review, where facilitator practice was affected as facilitators felt vulnerable at exposing their lack of content knowledge.

Tarryn on the other hand, appears to value her clinical and biomedical knowledge as this is the dominant form of capital influencing her actions in PBL.

Other facilitators such as Matumo and Kelly, despite not being medical doctors, also value their limited biomedical knowledge when it comes to their performance as facilitators. Matumo, however, feels that she does not possess sufficient clinical knowledge, identifying this as valuable in the field.

Kelly uniquely mentions that she uses her experience as a life coach, or experiential habitus to focus on and improve her biomedical capital. This illustrates how closely habitus and capital are connected.

Interestingly Zubayda, who has extensive PBL knowledge and practice experience, feels that the cultural capital that should be valued is that possessed by psychologists and not medical doctors. She feels that with biomedical knowledge, medical doctors will tend to teach in the classroom which is not the purpose of PBL. Since PBL is student learning and group-work focussed, she believes that psychologists are able to best use their knowledge of interactions between people to manage the PBL classroom and its critical incidents.

To varying degrees the PBL facilitators possess and draw on various kinds of cultural capital as they position themselves in the field of medical education. Some are unsure of which cultural capital is most important to the field of medical education at UCT (e.g. Razia) while others have strong opinions about which forms of capital should be considered important (e.g. Zubayda). Facilitators have also identified that within the field of medical education greater value may be placed on forms of capital other than those which facilitators possess. Razia for example downplays the capital gained as a teacher despite working in a student environment. Conversely she praises the possession of biomedical knowledge that she does not possess, but which appears valuable in the field. Matumo adopts a practice based on the PBL rules laid out by the PBL training staff in an attempt to fall in line with the field values rather than her own.

In Chapter 3 I mention that in addition to the possession of cultural capital, the importance afforded to different forms of capital may also play an important role in the study. I have indeed found that cultural capital is mentioned and noticed throughout the interviews and observations as having the greatest importance in facilitator practice. Economic, social and symbolic capital play smaller roles in influencing actions in the

classroom, however they do influence facilitators reasons for joining the PBL system. This influences the relationships between PBL staff and facilitators and between facilitators and students in the field of medical education. The relationships mentioned above may afford the facilitator a sense of not only belonging, but of significance in the field and of value as a teacher. Thus these relationships contribute to the accumulation of power or symbolic capital.

Aspects of practice that predominantly relate to field and interactions in the field

Along with habitus and capital, the medical education field with its institutional, curricular or course factors and power dynamics have an influence on facilitator actions, role or identity. This often creates tensions noted in the facilitator observations and particularly their interviews described in Chapter 5 in the analysis, which is elaborated on further below.

i) Institutional Factors

Interview reports by facilitators illustrate how they identify themselves as players within the PBL curriculum and the field of medical education. For example, Zubayda mentions that UCT is a predominantly research based institution and does not afford enough symbolic capital to teaching or facilitating.

Despite being a full-time member of the institution, she resigned from her position and now takes up the role of PBL facilitator only, occupying a part-time post and thus sacrificing symbolic capital in the field. She feels that this is the best decision for her based on her passion for teaching, yet she clearly values her ties with UCT staying as she does within the institute. By repositioning herself within the field she seeks to raise the profile of teaching capital in the field. In doing so she supports other facilitators in the field who also wish to assert the importance of teaching capital. Institutional factors

therefore play a role in where this facilitator identifies herself and the commitments she values. Zubayda focusses on PBL and her passion for facilitation and student learning, displaying her orientation and efforts in the field.

ii) Power Dynamics

Symbolic capital may also be seen as an indicator of power dynamics in the workplace and classroom. This is apparent in the interview with Matumo where she expressed feelings of disempowerment when she joined the FHS, due to her disadvantaged background and English accent. She also mentions her disappointment at feeling 'judged' by the PBL training staff regarding her actions in PBL. She feels that to be able to give criticism they need to know her as a person and not merely judge her actions through her accent or a short observation based on PBL process rules. On the other hand she appears almost reluctant to change their rules when it comes to student note taking in the classroom for fear of going against the course norms or rules. She thus associates symbolic capital with the institution and PBL staff. This facilitator case highlights the interesting power dynamics that may occur between part-time PBL facilitators and other players in the field.

iii) Curricular factors

Curricular factors in this study relate to the structure of the PBL curriculum and the impact this has on what facilitators do in the classroom. The curriculum is translated to the facilitators through facilitator notes supplied to them at the commencement of each PBL case, as well as through the training and case meetings that facilitators attend. The facilitator notes and case meetings illustrate the content knowledge that the course requires students to discuss in the classroom and the way in which the facilitators should manage the discussions, that is, the specific trigger questions and probing facilitators need to guide student learning. My intention was to relate the structure of these notes to the pattern of the actions around curriculum that facilitators display in the classroom.

On further reflection of curricular factors, Bourdieu's theory of practice may not be the best descriptor of facilitator actions or behaviour around content management or other elements of the course. Through my description of how practice relates to curriculum structures, I wished to highlight the similarities and/or discrepancies in actions facilitators use after having considered curricula recommendations. However, through the study it became apparent that facilitator actions in the classroom do not strongly compare to the way the content is discussed by the students or how the facilitators make use of the trigger questions. Often the level of student independence is good and they are able to manage their own discussions and decide on which LOs they prefer to answer at which times. Facilitator actions, however, mostly speak to the use of the PBL process or relate to individual facilitator content knowledge, rather than how they manage the actual content knowledge in the case notes. Furthermore trigger questions are not synchronised with the case notes and I noted some discrepancy in the observation versus the interview.

It appears likely that they follow the content discussion in the classroom and compare these discussions to the notes silently as was evident in the observations of Matumo, Molly and Elmie, without necessarily applying the questioning. Some facilitators with content knowledge also ask trigger questions other than the ones presented in the notes and feel comfortable guiding the students without relying on the format of the notes. To this end this study is unable to provide sufficient data to establish whether facilitator actions are affected by curricular factors.

iv) PBL

In this study the level of the experience of each facilitator in working within the PBL environment varies. Facilitators who value the PBL 8-step process and orient themselves around the PBL method do so because of their belief in the educational benefit as in the case of Matumo, or through their experience in working with this method and witnessing its value first-hand, as with Zubayda. We can assume that the facilitators in this study

have knowledge of the PBL method as they have all been through PBL training and attend the fortnightly facilitator development meetings where there are PBL method updates and revisions.

Facilitators who orient themselves around the student learning process in PBL are those who enjoy stimulating student thought and interaction with knowledge, or those who value student support and development, as in the case of Tarryn and Kelly. They may have teaching qualifications or experience in working with groups of students in PBL, tutoring or other environments (e.g. Zubayda, Bharath and Razia). In addition they themselves may have been previous students in the PBL system who believed in the value of PBL through their own learning experiences such as was the case for Tarryn.

The PBL curriculum at UCT FHS consists of the integration of numerous basic, applied and social science disciplines in the setting of a simulated clinical case.

Any facilitator with knowledge of the science disciplines or a clinical background may find himself /herself positioned in this area when it comes to actions or strategies in the classroom. Through the analysis I was able to identify which facilitators made use of the capital associated with their discipline and clinical experience and knowledge and thus compare this to the level of their orientation around content matters (in the case of Tarryn). I was also able to do the same with regards to those who lacked the capital related to discipline or clinical experience (as seen with Razia and Molly).

The outcomes and goals of PBL have been described in Chapter 2 as being two-fold, that is, for the development of skills and of content knowledge. Facilitators who promote the acquisition of skills such as independent learning and responsibility, teamwork and consideration of others, recording and scribing and so forth, may either themselves embody or demonstrate such skills or value and promote the acquisition of

these skills through their actions in PBL (witnessed in most facilitator studies). The same concept applies for those valuing content knowledge (e.g. Tarryn).

6.2 Additional Points of Tension Mentioned by Facilitators

Matumo enjoys PBL and working with the students. She felt insecure about her English language ability and accent when she initially joined UCT, however, working with the students has given her an increased sense of confidence and enabled her to learn and grow in her spoken English. She almost feels guilty at 'using' PBL and her interaction with the students to better herself. Conversely, she conveys a sense of unhappiness at her perceptions of being discriminated against by the UCT staff, stating that she is judged on her background.

This subsequently shapes her interaction with the students in PBL as she identifies with students from disadvantaged backgrounds and instils a sense of understanding and respect in the classroom for students from diverse backgrounds and cultures. Matumo acts in what she identifies as being in the interest of a certain sector of students. Her actions toward empowering the students in the classroom stems from her own feelings of disempowerment and a need to uplift others and herself from this state. She asserts her agency and thus engages with a particular site of 'struggle' or tension within the field. We thus witness how symbolic capital grows through her relationship with the students and not the PBL staff in the field.

Other tensions in the field can be seen in response to the recommendation of PBL methods valued by PBL staff. In the cases of Elmie and Matumo, there are tensions between the directions given by the PBL staff versus the perspectives of the facilitators in the classroom. Elmie feels that PBL is too regulated by the convenors and that student

learning should not be compromised by the rush to complete the recommended LOs. However, it was not evident during the observation whether or not she acted on this perspective. Matumo also disagrees with the PBL trainers rule that students are not meant to make written notes during PBL and during the observation she conveys this to the students. She however also mentions that she is meant to abide by policy despite disagreeing with it, displaying a clash between herself and the PBL trainer perspectives.

Matumo is also an advocate of the PBL process and of developing student responsibility. She follows protocol and there appears to be a fostering of student independence in that students are comfortable to work without too much guidance and probing. This approach was also observed in the teaching styles of Zubayda and Molly whereby the students are allowed to discuss the content independently, interrogate one another and / or take the steps of flagging unresolved content issues for later research.

However, the study has not clarified whether the extensive support of the PBL process and student independence in content discussion affords these facilitators respite from having to probe around clinical content knowledge, or whether a decrease in content knowledge accounts for the greater student independence witnessed in the class. In other words there are still questions around whether the lack of possession of certain cultural capital (content knowledge) fosters student independence, thus constituting another valued asset in the field, or whether student independence excuses the lack of possession or gain of cultural capital.

I pose this question due to comments by two facilitators around the issue. In the interview with Molly, she confessed that her lack of content knowledge discourages her from facilitating the more knowledgeable students in their second or third years. Razia also displays insecurity around her lack of knowledge when she states that she ‘gets lost’ during the student discussions and thus cannot ask them the appropriate trigger questions.

She debates whether her shortcoming may actually benefit the students by allowing greater student responsibility. Elmie expresses similar views.

These tensions indicate that the facilitators are often unaware of, and thus insecure about, their role and responsibilities when it comes to the content of the course. They may be reassured by the PBL staff that content knowledge is not a criterion for becoming a facilitator, but they experience things differently in PBL or witness a need for some deeper content understanding. Facilitator reassurance and correct placement through the courses by the PBL staff are therefore even more pertinent.

Chapter 7 – Conclusion

According to the semester 2 convenor (September 2013), *“facilitators are important and valued as they form the foundation of PBL. With poor facilitation PBL will crumble, and therefore we need facilitators who are invested and engage with the students.”* In addition, much time and resources are invested in PBL facilitator training, development and support, and thus it is evident that facilitators are valued by the current management of the UCT FHS.

Staff development is defined as “any planned activity to improve an individual’s knowledge and skills in areas considered essential to the performance of a faculty member” (Sheets and Schwenk, 1990 as cited in McLean, 2008:555). My recommendation to all PBL convenors would thus be to take cognizance of the necessary skills required to provide crucial opportunities for the advancement of facilitators in this regard through training and transmission of educational knowledge.

This study has shown that individual teachers permeate their own teaching beliefs or perspectives, notwithstanding whether they are similar or different to the dominant institution perspectives on teaching and teacher-student interaction. It is thus important that facilitator development does not serve as a brain-washing exercise, but as an informative event aimed at enhancing the reflective capacity of the facilitator.

From observations noted through the facilitator monitoring reports by the EDU, facilitator interviews in this study and my experiences as a convenor, it appears that UCT staff involved in the PBL curriculum appreciate facilitators who are not only knowledgeable about teaching, but who develop an understanding of social learning theories and the expanded responsibilities and roles required in facilitating learning in a PBL environment. UCT ideally requires facilitators who strive towards being well-

rounded role models, teachers, managers, mentors, educationalists, content experts and professionals. In this study, facilitators have demonstrated these attributes in varying degrees and combinations. However, facilitators and the PBL staff appear unsure of which attributes should be valued or how to promote them despite attempts at facilitator development. It is thus my proposal to the university and PBL convenors that the facilitators employed need to embody and promote professionalism in the classroom, particularly around socio-cultural and ethical issues.

It may also be difficult to excel at all these roles in an evolving and dynamic medical education environment and without a solid support framework for facilitators this would not be possible. Having said this, educating and nurturing facilitators is as essential as educating and nurturing medical students. Whilst student motivation and learning is important, so is the promotion of good facilitator experiences and job satisfaction in the workplace. By gaining a better understanding of the facilitator attributes and values as done in this study, there is an increased awareness of how to attempt this facilitator development process.

Furthermore by gaining insight into who the facilitators are and what they bring with them into the classroom, one can reflect on where in the MBChB programme each facilitator is situated and which cohort of students from Semester 1 to Semester 5 they are best suited to facilitate. Although this study may not be able to predict whether student learning has improved as a result of better informed and placed facilitators, it provides a good framework for future research in PBL.

The outcomes of this study are limited to the context of PBL facilitator practice in the UCT FHS setting and to the specific method of UCT PBL implementation. It may not speak to all PBL settings.

UCT employs facilitators from different backgrounds, qualifications and interests, both within and outside of the institution, in same or varying courses in the MBChB programme. However, despite these distinctive factors, the literature suggests that facilitators at UCT display similar actions in the classroom as facilitators internationally and these actions are influenced by the same or similar facilitator reasoning (Grasha, 1994; Moore, 2008; Yin and Peh).

Close observation of the facilitator in the classroom afforded the opportunity to describe facilitator practice and interviewing facilitators around their actions allowed the better understanding of where their practice stemmed from. Given the diverse facilitator backgrounds, personalities and types of knowledge possession, facilitator practice is a multifactorial and complex topic.

Bourdieu's theory of practice has been a helpful lens with which to analyse facilitator actions in the classroom as well as the tensions that arise in the field. It is evident that the factors affecting facilitator actions in the classroom are many, but in summary can be broadly grouped around background and individual factors, the dynamics in the PBL arena and the resources that facilitators value in this field. This can be referred to as habitus, field and capital.

Since habitus describes the dynamic between the facilitator's disposition and their classroom behaviour, we can conclude that facilitator's personal or individual attributes including their thoughts, perspectives and feelings, would affect their teaching practice. This concept can be fittingly applied to the PBL facilitators at UCT, that is, facilitator habitus impacts on actions in the PBL classroom. Facilitator background, as an aspect of their habitus, appeared to have a substantial impact on facilitator practice. Background factors refer to the social and occupational experience of the facilitator and how this shapes their teaching practice.

There were differences in actions depending on the sort of practice or academic background of the facilitator, whether they had formal qualifications around teaching or alternatively possessed a health sciences or other degree. Moreover, facilitators often varied between valuing clinical or scientific knowledge and the ability to understand the psychology behind group interaction. This illustrates the role that capital has on practice. However, it appeared that all facilitators as well as PBL staff valued enhancing student learning and promoting the skills of deeper understanding and integrating of content knowledge.

Dynamic interactions or tensions in the field were seen between PBL staff and facilitators and the students and facilitators in the group environment. Facilitators reflected on, and illustrated how, these interactions influenced their feelings around facilitator practice and their actions and strategies in the classroom.

This study attempted to provide a practical and sociological approach to understanding facilitator action in the PBL classroom and the underlying reasoning and influences. It uncovers some of the complexities underlying the varying and truly individualistic practices in PBL facilitation, as well as the challenging task of providing beneficial facilitator support. Through this study I wish to contribute to the development of improved PBL development and facilitator support structures.

Word count: +/-26 602

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Appendix i

Information Letter to Participants

Title of Research: Understanding Facilitator Strategies in the PBL Classroom

Dear Participant

My name is Nawaal Davids and I am a student in a Master of Philosophy in Higher Education degree at the University of Cape Town. You are invited to take part in this research project, which I am conducting as part of the requirements of my degree. The research project has ethics approval from the Faculty of Health Sciences Human Research Ethics Committee.

This project aims to identify and explain the key factors that affect Problem-Based Learning (PBL) facilitators in order to understand what drives facilitator actions and behaviours in the PBL classroom. In highlighting facilitator actions and the reasons behind the actions in the classroom, we will be able to address several necessary faculty, staff and student issues experienced at UCT for the purpose of understanding how we as a faculty need to support facilitators and enhance or direct facilitator development sessions in order to encourage well-rounded experiences and reflection amongst the staff. If you choose to take part in the project you will be required to:

- Be observed during one of the report-back PBL sessions (and optionally be recorded via audio tape). This will be approximately 2-3 hours long, in your usual PBL classroom, during the first or second case in Semester 2
- Be interviewed after the PBL classroom observation for approximately 30 minutes to an hour

All information collected during the research project will be treated as confidential and, in order that you remain anonymous, you may choose to use a pseudonym. All data collected will be stored on UCT premises for 5 years after the project has been concluded and will then be confidentially destroyed. The information will be presented in a written report, in which your identity will not be revealed. You may be sent a copy of the final report on request.

Participation in this project is voluntary and you are free to withdraw at any time and there will be no penalty for doing so. If you would like to take part in the project, please reply to me via email at your earliest convenience and I will contact you for a written consent. Should I not receive voluntary responses, I may approach you individually via email or telephone. This selection will then be to increase variation and be based on

criteria such as sex, race and qualification, obtained confidentially through your line manager and ensuring your anonymity.

If you have any queries about the research project or require further information you may contact the following people:

Principle researcher: Nawaal Davids

Telephone no: 021 406 6562

Email: Nawaal.Davids@uct.ac.za

Supervisor: A/Prof Jeff Jawitz

Telephone no: 021 650 3351

Email: Jeff.Jawitz@uct.ac.za

Thank you for your time,

Yours sincerely

Nawaal Davids

Appendix ii

UNIVERSITY OF CAPE TOWN Faculty of Health Sciences



CONSENT FORM

Title of Research Project: Understanding Facilitator Strategies in the PBL Classroom

Principle Researcher: Nawaal Davids

UCT address: Rm 1.02.2 Level 1, Entrance 1, Falmouth Building, Health Sciences Campus, Anzio Road, Observatory, Cape Town

Telephone: 021 406 6562

Email: Nawaal.Davids@uct.ac.za

Nature of Research: Analysis of strategies (via observation and interviews) of Problem-Based Learning facilitators in order to identify the factors that influence facilitator actions in the classroom.

Participant involvement in research: Undergo an observation of strategies in the PBL classroom as well as a semi-structured interview

Risks: none

Benefits: for completion of MPhil degree in Higher Education; contributing towards knowledge on PBL facilitators and teaching strategies

Cost: none

Payment: none

(Please tick the boxes you agree on)

- I agree to participate in the research project.
- I agree to be audiotaped.
- I have read this consent form and the information it contains and had the opportunity to ask questions about them.

- I agree to my responses being used for education and research on condition my privacy is respected, subject to the following:
 - I understand that my personal details will be used in aggregate form only, so that I will not be personally identifiable.
- I understand that I am under no obligation to take part in this project.
- I understand I have the right to withdraw from this project at any stage.

Signature of Participant: _____

Name of Participant: _____

Signature of person who sought consent: _____

Name of person who sought consent: _____

Date: _____

Appendix iii

Semi-Structured Interview for Facilitators

Understanding Facilitator Strategies in the PBL Classroom

Facilitator: _____

Date: _____

Demographic profile: _____

1. Discuss your qualifications, work and education background and teaching experience.
2. Why did you choose to facilitate at UCT?
3. Describe your current facilitation strategy in the classroom.
4. Why do you follow this strategy?
5. What influences your actions in the classroom and how does it do that?
 - 5.1. What knowledge or experience do you draw on when deciding how you would facilitate the PBL session?
 - 5.2. What previous experience do you have of working with students?
 - 5.3. What are your views on the PBL process used on this course?
 - 5.4. How strongly do you follow the recommended UCT PBL protocol e.g. training and facilitator notes?
 - 5.5. Is there anything you would like to do to change our facilitation strategies in PBL? If so, what and why?
 - 5.6. Is there anything you are currently doing in PBL facilitations that goes against your beliefs of facilitations or teaching? If so, why?
 - 5.7. What support if any have you needed in developing your strategies for facilitating PBL sessions?

5.8. What challenges have you experienced in facilitating PBL sessions and how have you attempted to address them?

5.9. What kind of relationship do you have with the students and does this have any effect on your facilitation strategies?

5.10. What kind of relationship or interaction do you have with your colleagues in the practice of medical education and does this have any effect on your facilitation strategies?

6. What other factors may affect your facilitation strategies in PBL?