

“Being Absorbed in That Environment...It’s Just So Beneficial” – The Experiences of Physiotherapy Students in a Situated Learning Pilot Study

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Abstract

In this article, we aim to add to the existing literature on practice-based education. First, we will present a form of situated learning, which involved piloting a new teaching and learning relationship between the university and healthcare setting. Second, we will examine how students made sense of this perspective of practice. Using a phenomenologically oriented approach, this pilot study explored the experiences of entry-level physiotherapy students learning in a classroom environment, facilitated by clinicians, and located on a healthcare partner’s site. Twenty students completed two concurrent, theoretically oriented subjects that did not involve traditional clinical practicum experience. Two individual semi-structured interviews were conducted with students. Data was thematically analysed using an inductive approach. Three inter-related themes emerged. First, meaning-making is enhanced by the relevance and authenticity afforded by immersion in a practice-oriented classroom environment where clinicians facilitate learning. Second, learning from those ‘in practice’ challenges students’ professional and academic accountability. Finally, new educational infrastructures influenced students’ agency in unanticipated ways. This work highlights that students valued contextual learning. While meaning-making was enhanced by the development of key new relationships with others and the environment, these relationships also influenced student agency. Recommendations for health professional curricula are discussed, and include: capitalising on learning with peers, bringing the hidden curriculum into view, and creating opportunities for students to navigate uncertainty and change.

Keywords: health sciences; phenomenology; physiotherapy; practice-based education; students

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Journal URL: <http://e-learning.coventry.ac.uk/ojs/index.php/pblh>

Barradell, S., Blackstock, F.C., Tang, C.Y., and Leo, J. (2017) “Being Absorbed in That Environment...It’s Just So Beneficial” – The Experiences of Physiotherapy Students in a Situated Learning Pilot Study’. *International Journal of Practice-based Learning in Health and Social Care*, 5 (1), 12–23



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Introduction

Health professional education is more than workplace learning. Rather, it involves a holistic orientation to teaching and learning that consistently informs course curriculum in order to develop capabilities for future practice roles. Such a perspective is in accordance with practice-based education models that focus on authentic, contextualised, and participatory approaches to professional learning (Trede and McEwen 2012). Design and learning principles include establishing practice/workplace relationships, modelling good practices from clinicians, facilitating ways of professional knowing to gain practice wisdom, and encouraging ownership of one's ethical professional practice (Higgs 2011).

Practice-based education inevitably occurs within contexts shaped by the interests and practices of students, teachers, practitioners, institutions, workplace settings, and society (Higgs 2011). For health professional courses to achieve the aims of practice-based education, various partnerships exist between healthcare provider and university contexts. Historically, clinical placements were once the main ways that these relationships came to fruition, providing opportunities for students to engage with practice. These clinical experiences represented a culmination of professional learning that followed university classroom-based experiences directed at developing foundational knowledge and skills. Practice-based education, however, recognises that the curricula of professional courses should provide more diverse occasions to learn for, and in, practice contexts. Workplace learning at the patients' bedside, for example, is only one pedagogical strategy amongst a range of possibilities including, but not limited to, simulation, problem-based learning, role plays, and online learning (Higgs 2012).

No matter the pedagogy, a key dimension of practice-based education is engaging in relationships, be it theory/practice, university/work, academics/clinicians, learner/staff, peer/peer, or learner/discipline. What people do and say – and how they interact and join in with others – is what defines practices (Kemmis and Trede 2010). An awareness of the social relationships at the heart of these practices is behind some of the growing scholarship in practice-based education (Loftus and Higgs 2010). Yet, it is argued that scholarship has been focused more on the practice community than the meaning and interpretation of experience from individuals (Loftus and Higgs 2010). A better understanding of the experience of individuals is essential to help understand the important aspects of practice, and those who engage in practice.

In this article, we aim to add to the empirical literature concerning practice-based health professional education in two main ways. First, we present the context for our research: a form of situated learning that involved a new teaching and learning relationship between the university and healthcare setting, and with it, different roles of the physiotherapy clinicians working in the healthcare setting. Second, we explore the experiences of students studying and learning within that model. The work described in this article is one aspect of a larger pilot project, undertaken in Australia, that aimed to evaluate various elements of the implementation of this model of learning. The sections that follow describe the model and study design, outline the experiences shared by the participants, and discuss implications for health professional learning.

Method

The research described in this article used a phenomenologically oriented approach. Phenomenology is concerned with gaining an understanding of how a phenomenon is experienced, and made sense of, by a group of people (van Manen 1990).

Context

The study involved two theoretical non-clinical practicum subjects of La Trobe University's entry-level programs. These subjects take place in the second semester of third year of the

University's combined bachelors/masters (which is the equivalent of second semester of first year of the University's graduate entry masters). The two subjects have clinically orientated learning objectives, but do not involve any clinical practicum experience. One subject extends students' understanding of complexity in core areas of physiotherapy practice, and the other subject explores physiotherapy practice in early lifespan and gender-specific contexts, such as ante-natal care, and the management of incontinence. Learning activities and assessment tasks, either face-to-face and/or online, are scheduled across a five-week teaching period. Students complete a total of 26 hours of face-to-face teaching in one subject, and 39 hours in the other. Each subject has an expectation of a total of 150 hours of learning activities (including self-directed learning) across the five weeks.

Traditionally, the course structure of La Trobe's entry-level physiotherapy degree involved students spending parts of their final 18 months on various clinical placement experiences across different healthcare agencies, in addition to returning to the university campus to participate in these theoretical non-clinical practicum subjects. However, as part of the University's long-term strategy to collaborate with health and community services, Academic and Research Networks (ARNs) were recently formed between the University, and health and community services networks. These networks comprise purpose-built facilities co-located within main partner healthcare sites, and organisational structures/systems to promote and foster both research and teaching/learning collaborations. The teaching and learning component of these ARNs was piloted with one metropolitan healthcare provider, ahead of full implementation which took place across all ARNs the following year. It is this pilot that it is the focus of this article.

The particular healthcare provider was selected for this pilot project as its infrastructure was the most developed within the ARNs (e.g. the physical teaching space environment already existed and the partnership between the university and healthcare provider was formally established over a decade earlier). The classroom-based activities of the two theoretical non-clinical practicum subjects mentioned above were relocated to the purpose-built site away from the university environment. This meant that students no longer returned to the university campus for subjects they were enrolled in, instead being immersed in locations closely aligned to health services. Physiotherapy clinicians were recruited to facilitate the classroom-based activities. These individuals remained employees of the healthcare provider; their experiences are discussed in a separate article which the authors are preparing (*Blackstock et al. forthcoming*). Subject coordination, curriculum development, and assessment remained the responsibility of the Physiotherapy academic staff at the University.

Participants

A form of purposeful sampling was undertaken to recruit students to be involved in the pilot. Students whose residential location was in the geographic catchment area for the ARN were invited to participate. These networks also formed the basis of La Trobe's clinical placement allocations, so residential location was in keeping with the university's procedures. The ARN had the capacity to educate a total of 20 students for their professional practicum experiences, therefore a total of 20 students was invited to the pilot.

Students were considered for inclusion if they were:

- Enrolled in the third year of their entry-level undergraduate physiotherapy degree OR were enrolled in the first year of the graduate entry masters physiotherapy degree;
- Allocated to the ARN for professional practicum placements;
- Enrolled at La Trobe University's metropolitan campus.

All 20 students allocated to the ARN agreed to participate in the study, providing written consent. [Table 1](#) illustrates the students' characteristics. All but one of the students was enrolled in the combined bachelors/masters degree. Eighteen of the 20 students completed both semi-structured interviews. One student withdrew prior to commencement of the study: a

change in personal circumstances prevented this student from completing the pilot study. The second student failed to complete the second interview due to personal circumstances.

Table 1: Summary of demographic information of students

	Gender	Age	Years studying physiotherapy at LTU	Overseas student (Yes/No)	Previous university study (Yes/NO)	Years of previous university study	Work experience in physiotherapy
1 (1)	Female	27	3	YES	YES	Completed bachelor degree	Nil
2 (3)	Female	24	3	YES	NO	-	Nil
3 (16)	Female	20	3	NO	NO	-	Nil
4 (17)	Female	24	3	NO	YES	2 years	Nil
5 (18)	Male	20	3	NO	NO	-	Casual AHA (private rehab)
6 (19)							
7 (20)	Male	22	4	NO	YES	1 year	Nil
8 (21)	Male	21	3	NO	YES	1 year	Physio assistant and sports trainer
9 (22)	Female	22	3	YES	NO	-	Nil
10 (23)	Female	23	4	NO	YES	1 year	Nil
11 (24)	Male	24	4	NO	YES	1 year	Nil
12 (25)	Female	23	3	NO	YES	2 years	Nil
13 (26)	Female	23	1	NO	YES	Completed bachelor degree	Nil
14 (27)	Male	21	3	NO	NO	-	Physio assistant
15 (28)	Female	27	3	NO	YES	1 year	AHA (public rehab)
16 (29)	Female	21	3	NO	YES	1 year	AHA (private rehab)
17 (30)	Male	27	4	NO	YES	Completed bachelor degree	Nil
18 (31)	Female	32	3	NO	YES	Completed bachelor degree	Nil
19 (33)	Female	20	3	NO	NO	-	Nil

LTU = La Trobe University
AHA = Allied Health Assistant

Data collection

In addition to the collection of demographic information presented in [Table 1](#), two individual semi-structured interviews were conducted with students ('T1' and 'T2'). The first interview was conducted mid-way through the teaching period. The subsequent interview took place at the end of the five-week teaching period. An interview schedule with suggested prompts was used. The interviews were conducted by two of the researchers. The same researcher completed all interviews with a particular individual. Interviews lasted between 30 and 60 minutes. They were audio-taped and transcribed verbatim, and then anonymised.

Data analysis

Two researchers independently analysed the data. Qualitative data analysis software (NVivo®, version 11) was used to store and keep track of the analysis. Each interview transcript was first read in its entirety to gain an overall sense of the student's experience, and the words that

student used to describe their experience. The audio recordings were also referred to when clarification of transcribed data was needed. Following the initial read, the transcripts were each read more closely to identify and isolate words or statements that appeared to give meaning to the students' accounts. This represented a form of coding. Subsequent levels of analysis looked for ideas that might be shared across the students' accounts. From these clusterings, themes were formed that represented the essential meaning shared by all students. Table 2 shows an example of the movement from coding to subthemes to themes. The two researchers met once they had completed coding and identification of subthemes. Together they reviewed and discussed their analysis with a third researcher, who aided the formulation of the final themes. The entire research team was involved in refinement of the final wording of each theme, ensuring the meaning or intention of themes did not change in doing so. Data analysis was therefore an iterative process, and involved a 'back and forth' between the interviews (across and between different students) and researchers. Students were provided the opportunity to comment on these final themes, however, the research team received no remarks.

Table 2: Example of moving from coding to theme

Isolation 'coding'	Ideas 'subthemes'	Themes
<i>"Being on placement, I don't muck around as much as I do at uni because of that feeling that you are in a hospital surrounded by people that could potentially be your employers or colleagues, making you act different."</i>	Need to impress clinician educators	Learning from those 'in practice' challenges students' professional and academic accountability.

The project was approved by the human ethics committee of both the University (FHEC14/010), and the healthcare provider (44-14).

Findings

The findings of this research are presented in the form of three themes. The first theme describes how meaning was enhanced for students by the relevance and authenticity afforded by immersion in the practice-based environment. The second explores how students' professional and academic accountability were challenged, and the third reveals the unanticipated impact of new learning infrastructure. While they are presented as separate themes, they are all part of the dynamic lived experience, and are inter-related.

Meaning-making is enhanced by the relevance and authenticity afforded by immersion in a practice-oriented classroom environment where clinicians facilitate learning

Being taught by clinicians seemed to help students to make sense of their learning and how it might directly relate to their development as a physiotherapist. Students' ability to make direct links to what they would be required to do in future occupational roles seemed to be enhanced by the obvious nearness to practice – those that do (the clinicians), and where they do it (the hospital):

... but this was more like a window that you could look in and see like this is reality, like this is what's actually going to happen for real [Student 22 – T1]

Due to their clinical experience, students perceived the clinicians to be the experts in the area, and well equipped to teach. The fact that the clinicians taught and practised, often within the space of a day, afforded them a particular credibility in students' eyes. The stories and

anecdotes that were part of a clinician's narrative were especially influential when it came to student learning.

... a lot more up-to-date maybe or a lot more current. You know [they are] still working before or after our class for instance, she'd even seen a patient before she taught our class who became very relevant with the stories and the- and the information. [Student 23 – T1]

Learning from those 'in practice' challenges students' professional and academic accountability

Students described becoming more aware of the need for, and importance of, professional aspects associated with learning to become a physiotherapist. They were challenged to change (and often improve) how they behaved, responded, and prepared. They wanted to present well to future potential clinical supervisors in the short term, and potential future employers and colleagues in the longer term.

I don't muck around as much as I do at uni because of that feeling that you're in the, you know, you're in a hospital. You're surrounded by people that could potentially be your employers or your colleagues of some sort makes you act different. [Student 28 – T1]

These extrinsic motivators were troublesome for students, resulting often in a heightened sense of stress and discomfort that they had not previously associated with learning. Many reported feeling under pressure to perform, and thinking more about what they said and did.

I did feel a bit of pressure in the first week with that idea of that I might encounter them as my supervisors later on. And so I guess there's a bit of pressure there and feeling more cautious and... Yeah just not as comfortable yeah, a bit of discomfort, but it's slowly getting better. [Student 22 – T1]

Students reported taking greater responsibility for their learning, in response to being educated by clinicians. They described being more independent and organising their study time and activities to a greater extent compared to when studying on campus.

I guess now I'm just sort of taking a bit more responsibility for it and making sure that I know everything, instead of relying on other people to teach it to me. [Student 17 – T1]

However, the students' approach to learning seemed to return to being more strategic towards the end of the teaching period, as students' attention was drawn more to passing the subject and finding time to complete assessment tasks. This transience is highlighted below in the two quotes from a particular student. On the one hand, he describes his development of time management skills:

I felt like I was better prepared for classes simply because there was quite a bit of preparation for some of the classes compared to on average what I would have to prepare for some classes over the last two and a half years and at La Trobe some classes wouldn't start in the morning till 10 or 11 so I would sometimes just get into university a bit earlier and kind of just do it then. [Student 30 – T2]

Yet, his later actions suggest the contrary, as he makes the active decision to skip class in order to have more time to complete his assessment tasks rather than better managing his time so as to incorporate both:

'Oh well I'm not coming to any classes this week because I've got to do my assignments' or something and I just – especially when things involve group work, I felt like I was doing more and then in the long run I felt like I had a lot more work to

do later because I'd been going to all these classes so I hadn't finished all these assignments that all these other people had because they just flat out didn't go to the classes. [Student 30 – T2]

New educational infrastructures influenced students' agency in unanticipated ways

The students' ability to be self-directed appeared to be influenced by learning both within an environment and with educators distant to the main university campus. Students perceived the experience of learning on a hospital site to be a greater challenge than learning on the university campus. They felt they were further away from their academic support network; campus-based study was associated with access to a larger variety of resources for learning, such as peers, teachers and the library. This was despite having access to the same online learning management system as other students, as well as email access to university-based academic staff. Students were also free to return to campus to use its services and facilities.

We don't have the library resources at [the healthcare site] and you don't have your facilitator there to ask questions, because although the clinicians are very good in your prac classes and your workshops, they obviously don't know what's going on with your assignments, you talk to or email people or facilitators back at La Trobe. You definitely feel further away from that support network than you do at uni. [Student 23 – T1]

The students reported that it was frustrating not having access to the spaces and equipment they were accustomed to on the university campus; for example, they described limited space for independent practice of skills, or set times when students could access spaces and equipment to practice at the healthcare site versus more flexible arrangements on campus. Students perceived issues of access as an inequity of the model, and a disadvantage in relation to assessment, with students reporting being under-prepared for specific assignments and very anxious as a result.

I just felt extremely under-prepared, like, a lot of the things, equipment that I saw, I've just never seen before. [Student 20 – T2]

Access to facilities such as printing rooms and the library, as well as the geographic location of the education precincts, influenced the learning approaches and strategies that students used. Students adapted to the resource constraints by changing study behaviours, including a shift to independent study at home. Interaction with their immediate peers was perceived to increase, and students rallied as a cohort through both physical and online interactions outside of class time.

... everyone was just sort of keen to work together to help each other through the theory block and also I think because it was a smaller cohort than what's – than who is studying uni at La Trobe sort of encouraged the whole class working as a team. [Student 18 – T1]

Internet access was not available to students at the healthcare site. Students felt that not being able to engage with online digital media during class was a learning disadvantage. Accessing the internet – for example, to search for information – was a normal, taken-for-granted part of learning. Without it, students found they needed to plan ahead for what they may need access to in class.

... mainly it's access to facilities. At [the healthcare site], we don't have Wi-Fi access so in- in the classroom situation, you can't just look up information. [Student 1 – T1]

Physiotherapy classes attached to this pilot were not the only activities using the limited space of the educational precinct. As a result of the demand on teaching spaces, scheduling involved frequent changes in location and/or learning environment. Students reported this to be

distracting and inconvenient. Such was the demand for space that sometimes venues that were not purpose built – such as physiotherapy gymnasiums – needed to be used as a classroom. Students found this added another contextual dimension to their learning, but some were uncomfortable, as there was a sense of intruding on patient care and physiotherapy work.

I think it's being absorbed in that environment, just by watching other physios interact with their patients is just so beneficial. [Student 25 – T1]

For some patients having a group of 20 students talking and practicing in the corner – I'm worried that that would be really, really distracting for them.....like too much sort of stimulus going on might take away from the quality of their own rehab. So that was just another concern that I had throughout working at [the healthcare site] particularly but other than that enjoying being there. [Student 25 – T2]

Discussion and practice implications

This study, and the themes that have emerged from it, show that there are considerable benefits to a situated model of learning for the development of physiotherapy students' professional and personal identity. However, there are also indications that there are important issues to consider, in relation to learning relationships, a positive learning culture, and student agency.

Students reported their learning to be enhanced through a contextualised environment, and the opportunity to engage with practising clinicians. The different environment encouraged emerging independence, shifts towards proactive approaches to learning, as well as fostering peer collegiality. The ability of the clinicians to demonstrate skills and discuss decision-making used at the patients' bedside, stimulated interest for the students. Engagement improves when a student's capacity to see the relevance of concepts and learning activities to real-world contexts is enhanced ([Zepke and Leach 2010](#), [D'Souza et al. 2013](#)). Richer contextualisation for learning was an educational aim of the model used in this study, so it is pleasing to see that this was one of the positive experiences shared amongst the students. Overall, students thought highly of the professional engagement opportunities.

However, students' agentic capabilities were challenged by (i) learning in a new environment at a distance to the main university campus and its familiar supports, and (ii) learning from people in positions of current and potential future authority (i.e. clinical supervisors, referees, employers and/or colleagues). The research team did not foresee that students would find certain new situations difficult to navigate. For example, students experienced difficulty with not having immediate, face-to-face contact with academic staff on the university campus, and struggled to take advantage of online communication avenues such as email or collaborative forums, or the opportunity to return to campus outside of class schedules. In certain situations, students rose to the challenge but did not seem to have the resilience or confidence to acknowledge those positive behaviours, or that being more self-directed and resourceful (e.g. preparing for class in different ways due to restricted internet access) was appropriate to learning to be a professional at tertiary level. Both professional practice and the ability to contribute meaningfully to society demand that graduates develop not only disciplinary expertise, but also the wisdom to act with accountability and initiative ([Frenk et al. 2010](#), [Solbrekke et al. 2016](#), [Trede and McEwen 2016](#)). Educators should be aware that certain transitions (such as moving from one environment to another) can test the spirit and resolve of learners; different support and scaffolding may be required at these points as a result.

Other challenges experienced by students were perhaps anticipated but not to the degree or frequency that students reported. Of most note, is the considerable anxiety and perceived high consequences of failure that students described. Students reported feeling a need to adopt specific active participatory behaviours within the classroom, as they were concerned about being judged adversely by potential future supervisors and colleagues. This suggests that the

motivational factors for learning tended to be extrinsically, rather than intrinsically, oriented; they seemed driven by the desire to please and perform, rather than being truly self-directed. Moreover, these learning behaviours were short-lived with many reverting to pre-existing learning strategies as their focus changed from impressing future supervisors to excelling in assessment tasks. Development of agency is vital for all health professionals to deal with the complexity and uncertainty, and lifelong learning commitment associated with contemporary healthcare (Su 2011). The experiences of the students involved in our pilot highlight that it is important to begin to develop these abilities early, and that small unfamiliarities can have a profound impact on learning. Exploration of stress, anxiety and academic performance in situated learning models such as involved in this pilot would be warranted to determine the impacts on learning. Greater attention should be paid to aspects of the hidden curriculum – in this case, matters of power whether real or perceived – as they afford significant triggers for learning (Karnieli-Miller *et al.* 2010, Karimi *et al.* 2014) that are often either overlooked or left to students to navigate on their own (Hafferty 1998).

Another factor that may have influenced the students' performative emphasis is the way that the clinicians involved in this pilot approached their teaching. As described in Blackstock *et al.* (forthcoming), maximising patient care outcomes was a focus of the clinicians; their teaching was less focused on the individual learners and their developing capabilities. This philosophy is understandable, for a clinician's professional identity is shaped by the entanglements they experience in work practice situations (Goldie 2012, Hammond, Cross, and Moore 2016). While the clinicians had past experience supervising students in clinical situations (i.e. at the bedside), knowledge and skills for that context do not necessarily translate to a classroom or teaching of non-fieldwork subjects. It is also possible that the clinicians had not had the opportunity, either formally or informally, to reflect on their ideas about teaching, and how to balance work-oriented standards versus contributing to a transformation of students' capacities. These issues are discussed further elsewhere in the companion article that explores the experiences from the perspective of these clinicians (Blackstock *et al.* forthcoming).

This study was a pilot for a different model of allied health education, and as such, only one healthcare site was involved. This may be considered a limitation in the research, as it is unclear whether students at different healthcare provider sites would have similar experiences. Further, the clinicians involved in the pilot undertook limited teaching responsibilities, and were not involved in curriculum development, student consultation, or marking of assessment tasks. It is very possible that different involvement of the clinicians may have resulted in a different experience for the students.

Conclusion

Immersion in practice-oriented classroom environments, co-located within healthcare sites and facilitated by practising clinicians, are highly valued by students. These contextualised experiences enrich student learning through the relevance and authenticity they afford. However, challenges also exist for students in the form of transitioning to unfamiliar environments and negotiating relationships with potential future colleagues. Such challenges demand an approach to learning and a level of agency that not all students find themselves equipped to deal with. Whilst some rise to the challenge, other students do so only in certain contexts or transiently, and this impacts their ability to learn in meaningful ways. It is important, therefore, that health professional curricula provide early and regular opportunities for students to develop their capacity to deal with change and uncertainty. Equally important is the chance to learn how to navigate their way through a range of contexts that demand the formation of new or different professional relationships with others. The hidden curriculum has untapped potential by which to explore these challenges. Peer learning is also valuable, both formally and informally, as the experiences of the students in this pilot demonstrated.

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