

## The 'Light Bulb Moment' – Transition to Mastersness

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### Abstract

The qualities required from master's level study or 'mastersness' have been described in the literature but the pathway to achieving these qualities is not clear. This paper aims to investigate the journey to 'becoming a master' by exploring the learning experience of master's students. A purposive sample of 7 students who had successfully completed master's modules participated in semi-structured interviews which explored their experiences and perceptions of master's level learning. Thematic analysis was completed by two researchers in order to identify key themes. The study revealed the *detail* of students understanding of becoming a master and how this develops. It highlighted that students perceive 'finding their own voice' to be the key theme with discussion, reading, thinking and time being significant factors of this process. Of these elements, discussion was felt by participants to have the most profound effect on the development of an understanding of mastersness and finding their own voice. We discuss how these findings may facilitate the student transition to master's level study by making the journey explicit to students.

**Keywords:** Mastersness, transition, postgraduate learning, discussion, critical thinking, threshold concept.

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## **Introduction**

As experienced educators in the field of physiotherapy, involved in the delivery of several masters modules on a number of different masters programmes to both home and international students, we were aware that many students found it difficult to understand what was expected for 'master's level' academic work. In order to facilitate students' understanding and development of master's level academic skills, a number of support strategies were in place: seminars on critiquing the literature and academic writing, learning support groups and tutorials. In addition, extensive explanations were given, both verbally in class and written in the module handbook. Despite this, we received formal and informal feedback from students that they were having difficulty with writing skills, understanding how to handle the literature and in their ability to take part in peer discussions in class. Some students described a 'light bulb' moment, when they became aware of what this 'masters level' concept meant. The students who came to us to share their excitement at their new understanding were from diverse backgrounds, ranging from new graduates to experienced clinicians, home students and international students. We wondered what it was that they now understood which they had not previously and how they had arrived at this understanding.

This paper aims to explore the learning experience of physiotherapy master's students in order to identify key factors in their journey which contributed to their 'becoming a master'. A secondary aim is to use our findings to inform future scholarly teaching practice in higher education. This is particularly relevant in the current climate of widening participation and internationalisation; in order to develop an effective strategy to support the transition to master's level study of students from a variety of backgrounds.

### ***What is Mastersness?***

Various terms have been used to refer to the qualities required from master's level study: masterness (Thorne 1997), postgraduateness (McEwen et al. 2005; McEwen et al. 2008), Mness (Mistry, White & Berardi 2009), postgraduate-ness (Stock, Phillips &

Vincs 2009) and mastersness (Jackson & Eady 2008). For consistency, the term 'mastersness' will be used throughout this paper.

The Quality Assurance Agency for Higher Education (QAA) developed a set of qualification descriptors in 2010, which highlighted key skills and abilities that are required of M-level. These include having an in-depth knowledge of the discipline, the ability to problem solve creatively and to critically evaluate research. While these descriptors have underpinned the development of marking criteria for M-level assessment by educators, they do not assist students in understanding how to develop these qualities. McEwen et al. (2005) evaluated postgraduate students' perspectives regarding what attributes they felt contributed to the 'postgraduateness' of a master's programme. Students from a range of cultural and academic backgrounds identified a number of key themes that characterised master's level study: a greater depth of student engagement, a student centred approach, stronger links between theory and practice with a greater emphasis on analysis and problem solving. While there are some similarities between these themes and the QAA level descriptors for master's level, strategies to develop these attributes were not discussed. This highlights the challenge we face as educators: we can define the goal (mastersness) but we cannot define the precise methods needed to reach the goal. Spearing (2014) attempted to address this challenge by exploring the effect of specific teaching sessions aimed at enhancing student understanding of the expectations of master's level study. She found that for most students this strategy proved helpful but for the weaker students it was not effective; suggesting that formal teaching sessions are not the full answer to supporting student transition.

Mistry, White, and Berardi (2009) studied course directors', students' and employers' perceptions of master's level skills; one of their key findings was the dearth of literature on M-level teaching and learning. An interesting finding of this study was that all three groups recognised the importance of critical thinking, the ability to deal with complex situations and autonomy as key features of 'Mness'. However, the course directors placed more emphasis on critical thinking skills, while the students and employers rated the ability to deal with complex situations more highly, suggesting a mismatch between academics' interpretation of the essence of Mness and that of students. Petty, Scholes, and Ellis (2011) highlighted a possible reason for this mismatch when they explored

master's graduates' perceptions of their learning transition. The findings suggested that as students developed a more critical approach to understanding their own practice knowledge, so they were able to become more creative and able to manage more complex situations. Thus, to academics, the key feature of Mastersness is the development of critical thinking skills, while to students the key feature is the outcome of their journey: an enhanced ability to deal with complex situations. Crucially, it is the development of critical thinking skills which the academic is seeking that provides the student with the skills to deal with the complex situations they face.

## **Context and Methodology**

In order to facilitate students' journeys to becoming a master, it is important to understand the students' perspective of the journey. The primary aim of this study was to understand the development of master's level skills, by exploring student's perceptions of changes that occur in their abilities as they progress through a master's programme. A secondary aim of this study was to synthesise these findings in order to develop more effective learning support strategies for students.

The researchers are both educationalists in the field of physiotherapy; they conducted their research from the interested perspective of wanting to understand the educational process that their students were experiencing and with the explicit aim of improving their own scholarly based educational practice with future students. Their situated context was of delivering courses at master's level; they were seeking, in their interpretation of the students' responses, educational information and clues to the students' learning processes.

This study is situated in the qualitative research paradigm; qualitative research is an inquiry process of understanding (Cresswell, 1998) which is relevant when exploring a phenomenon about which little is known or understood. Qualitative research attempts to make sense of the meanings that people make of the world around them (Denzin & Lincoln (2000). What is being sought here is the students' understanding of the changes that they had experienced; a change that appeared to be unconnected to the educators' explanations of what was required of them. The language and meaning of

words employed by the educators had not appeared to bring about this change, something in the student's experience had. This 'something' was unknown to the educators, as was the nature of the understanding that students felt they had gained.

Knowledge, or meaning, had been constructed by the individual students who had generated individual knowledge following their experiences and their developing ideas; this meaning was situated in the particular context of their master's level study. This places the students' experiences in an educational framework of constructivism which draws on the conceptualisation of knowledge as personal and subjective.

Constructivists believe that knowledge construction has an instrumental and practical function (Denzin & Lincoln, 1994) which is dependent on the social context, and the need to make sense of phenomena. Due to the students' initial lack of an understanding of what was required of them, the social context could be said to be uncertain (from their perspective), thus demanding a process of making sense of the academic requirements. This study sought to make explicit the sense that the students had constructed.

### ***Procedure***

The research procedure chosen was that of semi-structured, in-depth interviews. The purpose of qualitative research interview is to build knowledge based on the meanings that life experiences hold for the interviewees (DiCicco-Bloom & Crabtree, 2006). Semi-structured interviews allow the researcher to obtain information on the required topic with participants having the freedom to explain things in their own words (Morse & Field, 1996). The aim of the study was to explore students' experiences and perceptions of their developing master's level academic skills. Questions included asking students what they had thought masters' level study was before they commenced their study, what they thought it was now and what they thought had brought about the change in their understanding. One researcher conducted all of the interviews.

### ***Ethics***

Ethical approval was granted by the Higher Educational Institution involved. Participant information sheets and opportunities to ask questions were provided to the students.

Following this, all students signed informed consent forms and were aware that they could withdraw from the study at any time. In the reporting of the findings, pseudonyms are used to maintain anonymity.

### ***Participants***

A purposive sample was recruited of eight students who had previously expressed difficulty in understanding what was expected of master's level academic work and who had subsequently indicated to educators that they now understood what was required. The sample size was restricted by these criteria – these students were not 'sought out', they had sought out educators to share their elation at their achievement, and were later invited to participate in the study. These students had all completed and passed at least one master's module and had also demonstrated a clear change in their academic marks during the course of the master's programme. This suggested that the students' subjective perception of the change was reflected in their assessed academic performance.

### ***Data Analysis***

Interview recordings were transcribed, then thematic analysis was completed collaboratively by two researchers in order to identify key themes. Thematic analysis is a qualitative analytic method which provides a useful research tool and can potentially lead to a detailed account of the data (Braun & Clarke, 2006). The 6 phases of thematic analysis outlined by Braun and Clarke (2006) were fulfilled. These are: familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining themes and reporting. Initially, each researcher read and coded early transcripts separately, then met to discuss insights. Then each researcher re-read the transcripts with the collaborative insights and coding in mind, developing and reviewing the themes across the data set. Finally, a further meeting to agree and define final themes was held. The process was more iterative than linear, with insights being developed throughout the course of the analysis. Data analysis commenced before all interviews were concluded, and subsequent interviews were conducted with insights from the early data in mind.

## Trustworthiness

The criteria for establishing trustworthiness of qualitative research were developed by Lincoln and Guba (1985) and summarized by Petty, Thomson, and Stew (2012) and Cope (2014). The criteria are credibility, dependability, transferability and confirmability. Credibility refers to the truthful representation of the data (Cope 2014); dependability refers to which the study could be repeated with understandable variations (Petty, Thomson & Stew 2012), confirmability refers to how well the findings arise directly from the data (Cope 2014) and transferability refers to the extent to which findings can be applied in other settings (Petty et al 2012). Strategies for demonstrating these four criteria overlap; in this study the strategies are addressed by the following activities: member validation, transparent processes and procedures, peer debriefing, collaborative analysis, thick description and purposive sampling.

## Findings

Eight interviews were held. Technical problems resulted in the loss of one interview recording, leaving seven transcripts for analysis. Transcripts were returned to the students to check for accuracy and clarification, no changes were requested. The demographic details of the seven participants are summarised in Table 1. Students were from a range of cultural backgrounds: five from India and two from England. Ages ranged from 24 to 32; three were male and four were female.

**Table 1.** Demographic details of interviewees

Pseudonym	Age	Gender	Country of origin	Country of first degree
Peter	31	M	India	India
Valerie	24	F	India	India
Jaz	25	F	India	India
Diane	29	F	England	England
Martin	28	M	India	India
Matthew	29	M	India	India
Rachel	32	F	England	England

## **Journey to mastersness**

Each student gave an account of their own journey to understanding mastersness, highlighting what they understood by mastersness before they started their studies and how that changed during their journey, as shown by the following:

*I expected it to be [about] theoretical in-depth knowledge, but I thought it would be more of a receptive kind. Receptive kind is knowledge given to you by books and you accept it without considering both sides of the spectrum. Here, I'm listening and giving my views so it's not just receptive. (Valerie)*

*I can argue, I'm not able to accept, I will not accept everybody and anybody's comments, if I'm not agreeing to that I will argue and I will try to justify my argument and that's how I have changed in this. (Peter)*

*I was skimming the surface. I was looking at too many things and then when I'd write an assignment it would be a bit of everything but not depth in a particular aspect, and it's taken me up to the end of my last year to actually realise that that's the wrong thing to be doing. I would [now] look at more literature and be more critical of it, then try to take the best bits of different pieces of literature to try and come to a conclusion, to my own conclusion. (Jaz)*

The students' journey towards their understanding of mastersness can be understood through the concept of 'finding their own voice' in professional discussions. The factors which contributed to this were identified as *Reading*, *Discussion* and *Thinking*, all of which required *Time*. The strongest factor to emerge was that of *Discussion*. Each factor was felt by the researchers to contribute something distinct to their understanding of the student journeys; however, there was much overlap between these factors. Indeed, it is the interrelatedness of the factors working together which appeared to stimulate the students' learning journeys.

### **Reading**

Students reported developing a different approach to *reading* and different reading skills. They had expected to be reading as part of their study, and expected to learn how to read a scientific paper. However, the quantity of reading was much more than they expected, as Peter reports:

*Actually I never used to, er, read so many articles. (Peter)*

This led to a need to learn how to become more selective in their reading and also more focused in their reading. These two skills appeared to be related in that they needed to be more selective and more focused in reading specifically, in order to cope with the demands that volume of reading was placing upon them, as the participants explain:

*'I almost sort of learnt to filter what was important and what wasn't really, and I think that was wide reading.... and the librarians really helped as well in kind of steering me towards the right bits to be reading. (Diane)*

*because you haven't got time to read every single article in a particular area, it's only worth reading it if it's relevant. (Jaz)*

*whereas at Masters level you narrow it right down to a very specific field and then look at that in a lot of depth and apply that to practice (Diane)*

Students developed a different quality of reading, as they learned to evaluate the content as they read. This idea of evaluating as they read, evaluating the way in which their reading was applicable to their subject of interest and whether or not what they were reading was good quality, was new to them. Initially, this evaluation had to be done after the reading; it later became part of the process of reading.

### **Thinking**

The students were surprised to find that they had to do so much *thinking*. They had not expected that studying at masters' level was about developing their thinking skills, as *Mathew explains*:

*I really feel like I have a brain, I can use myself. So let me get in and give pressure to my brain to think more and more and more and more. This is totally different from what I thought. I thought maybe we had an assignment to write and just read and go, read and go.*

They were aware of their thinking skills growing and aware of themselves becoming more critical, as Valerie explains:

*when I first started I just couldn't think, I used a broader way of thinking, I was very focused, very narrow in my way of thinking. The thing of critiquing and discussing things was never a part of my life (Valerie)*

The process of reading described above also required actively thinking about what was being read, as it was being read. This thinking required more time than the students had expected, as explained below.

### **Time**

They were surprised to find how much *time* was required for these new reading and thinking skills. Diane's advice to other students would be to:

*Clear your schedule [laughs], be well-aware of the time commitments that are involved, be really aware of how much work you need to do...yeah, time is probably the biggest factor. (Diane)*

Time was demanded by reading because of the volume, and because the new evaluative nature of their reading meant that reading might take longer, with is implicit in Jaz's explanation of reading:

*The better thing to be doing would be to choose fewer articles and critique those in more depth. You still have to read a number of articles to then choose the ones that are more relevant so your reading is more in-depth and broad, but then you have to pick out a handful to read in more detail. (Jaz)*

One student suggested that the reading which had initially been very time intensive became quicker as he read more selectively:

*Initially, I used to spend a lot of time in reading the articles, read in detail, sentence by sentence .....later, the tutor taught me how to read a paper fast, like what are the points we need to go through? (Mathew)*

Time was also needed to think. Just as they had not anticipated thinking skills as part of their course so also, they had not anticipated the time required for thinking. Much of their focus on reading and thinking was related to producing a written assignment, and their view of what was required from the assignment also changed as shown by Martin:

*[I] first thought it's very easy because you have everything in your hand, you get all the material, you just have to jot down points from it.....But it's not that easy because you just can't write everything what you've got, so you have to take out points and then you have to put your point of view in. Here, you have to think a lot before writing. (Martin)*

## Discussion

Students felt that the most significant factor in developing their own voice was that of *discussion*. They reported discussions with student peers, in class as part of class work, with educators in class and outside class, time in one to one or group discussions and discussions with work colleagues for those in employment. The combination of thinking, reading and discussion seemed to enable them to form their own judgements and opinions, as these students report:

*you seem to get a richness or more quality of knowing what to look at within that by interacting with the other students that sort of thing, asking questions to um, to the lecturers if you're not understanding. (Jaz)*

*So there are some things I don't agree with the teacher, and that I argue, and the teacher justifies her point and I can justify mine, and I think that increases the knowledge of both me and the teacher, and it's not just teaching, it's a discussion now, yes, yeah. (Valerie)*

*what I got from this is that there isn't always a right and a wrong, and yours is just an opinion, and as long as you've got it soundly based on research evidence (Diane)*

The strength of this theme, which lay in the impact that discussion had on the students' development and the extensiveness of the discussion opportunities reported by the participants, surprised the researchers. The participants reported that:

*I think the discussions in the class right there and then helped me the most. (Diane)*

*I definitely think, you know, the discussion parts were just, you know, so valuable for me personally, um to have, because I think that's the bit that really helped me to flourish*  
(Diane)

*[Back at work] I've got some very, very experienced colleagues with me. I could then bounce my ideas off them whilst applying it to my current caseload. (Diane)*

*Another thing I really liked about this course here that you can go and talk to your tutors, you can discuss with them [what you have written] all this is very different from what I expected. (Martin)*

*you're getting the practice and the more you have discussions with your tutor, the more you talk to them in class and in the appointments, .....by talking to the tutors I got to know exactly how to go about it. (Martin)*

Despite discussion being intentionally utilised as a teaching approach, the researchers were surprised by its impact on student learning. In particular, it was the degree to which discussion was the means by which the students changed their grasp of mastersness which was unexpected. This was in contrast to the researchers' understanding of discussion as a method to develop student understanding of the topic of the teaching session.

All of these themes contributed to the students' new understanding of master's level work, which was the idea of having their own opinion. They arrived at an understanding that they were not just expected to learn more facts to gain deeper knowledge, but to have their own voice, or their own views, on what was relevant knowledge for their practice. For example:

*at first I thought it's very easy because you have everything in your hand, you get all the material, you just have to jot down points from it... it's not that easy because it should be of some meaning. You can't just write everything what you've got so you have to take out points and then you have to put your point of view in it. (Martin)*

*I would look at more literature and be more critical of it, and then try and take the best bits of different pieces of literature to come to a conclusion, to my own conclusion.*  
(Rachel)

*At masters level there is no right and wrong answer to anything. [I now think] it's where I feel it's like a big discussion group, and I'm part of the discussion (Valerie)*

*I think it's that ability to look at all of the information and form your own opinion based on the evidence you find in that. I think that's the master's level, is that ability to look at it all, well, what do you think about it, based on that information?... it's made me think about things a lot more... to think about it in a different way (Diane)*

Thus, the meaning of mastersness to these students appeared to be finding their own voice within the context of their professional practice. Essential factors for this discovery of their own voice seemed to be discussion, reading, thinking and time. The concurrent development of their own views and their confidence to express these views resulted in them finding their professional voice.

## **Commentary**

At the beginning of their journey, students often had clear goals in mind, for example, gaining a qualification for a more senior role at work or for moving into a different area. In Mathew's words:

*we comes with a lot of dreams (Mathew)*

However, the strategies students need to use to attain their goals are not so clear. Academics strive to provide students with strategies to enhance their learning and so facilitate their journey towards their goal. The researchers were such academic staff and had their own perception of the study skills required for master's level work, as indicated by the student support strategies they had put in place. However, according to our findings, these skills were not always obvious to the students. The students' perception of staff instructions were that these instructions were not within a context where the students could understand what was meant. Some students felt that they had to journey through the experience, before the context and meaning came to them. It could, therefore, be argued that advice and instructions given to the students early on in their journey are inappropriate and not effective without the parallel engagement in discussion, reading, and thinking over time. It may be that at this point in their journey their thinking skills have not sufficiently developed to recognise their learning needs. It

is through reading, discussion and thinking, that their ability to think critically and therefore recognise what they need to learn becomes apparent. On the other hand, it might be that the early advice and instructions are essential, in that they contribute to the students' construction of new understanding that comes later in their journey. What is apparent is that the journey to mastersness is a personal journey of experiential learning, as highlighted by Valerie:

*I initially thought that the teachers are not giving us a lot of input so to teach us critiquing, but now I realise that this is something no one can teach, it's something you learn with experience, writing and reading about it. (Valerie)*

More specific research may highlight the most effective timing and content of student support strategies. It might be that *time* is the crucial factor: time to engage with the journey and construct a new understanding of the area of study. Acknowledging time as a fundamental factor in the development of mastersness might be an important lesson for students and academics alike. There is no short cut and no magical strategy that will make the journey faster.

*so I would advise students to put in their own hard work trying to learn for themselves, explore for themselves, yes, so otherwise there's no other way out for this, there's no other way. (Valerie)*

### **Using discussion as a stepping stone to mastersness**

Recognition of the value of utilising discussion as a tool for learning is not new; its use has been propounded previously, for example, Bligh (1986), Brookfield and Preskill (1999), Hollander (2002), Schneider (2010). Freire (Shor & Freire, 1987), who is known for his stance on critical pedagogy, highlighted the dialogic process as a method for students to gain a systematic understanding of their perceptions of reality, which is their first step towards critical thinking. Because critical thinking is one of the key features of mastersness, this emphasises the important role of discussion as a method for enhancing critical thinking in the journey to mastersness. Kuhn (1991) defined critical thinking as a type of reasoned argument with a social element. She argued that a student's ability to differentiate their own point of view, support their own point of view with evidence and evaluate alternate theories, are key aspects of critical thinking. Thus,

it could be argued when the participants in this study referred to the value of discussion in developing their own views and opinions, they were in fact, describing the development of their critical thinking. When referring to their perception of mastersness, the participants did not describe the development of their critical thinking explicitly; rather they described their confidence in expressing their own views: this was the key element that changed during their journey. This apparent mismatch between the participants' description of mastersness and our perception may be simply to a lack of experience. Crotty (1998) suggests that the world we experience prior to our experience of it is not meaningful to us. As the students start to acknowledge the differing views and realities within the group, they gain insights into their own reality, construct their own meanings and are no longer naive acceptors of knowledge, but critical learners with a voice of their own.

The notion that education facilitates a transformation of a student's internal perspective and personal and professional identity was discussed by Meyer and Land (2003) in their paper exploring the idea of 'threshold concepts'. These are conceptual gateways through which an individual passes on their journey to understanding. Beyond the gateway the individual can access a new way of thinking which was previously not possible; their internal view of the subject is irreversibly transformed. We are proposing that critical thinking is a threshold concept in the development of mastersness. This might explain the 'light bulb moment' that our students described when they suddenly felt they understood what was meant by mastersness. Meyer and Land (2003) described an expansion in students' language which was associated with the new way of thinking. Discussion would provide an arena for the use of this new language to allow this new way of thinking to be expressed, shared and fed-back upon by others in the group. This might be one of the reasons why the participants in our study felt discussion had such a profound effect on their learning journey.

In a later paper, Meyer and Land (2005) use the term liminality to describe a phase where individuals approach the gateway, where they struggle to understand the threshold concept and may 'get stuck'. It is this phase where educators may intervene to help the learners around their obstacles. We suggest that it is in the phase of liminality that discussion is a valid strategy for enhancing an individual's progress around obstacles and on towards the gateway (in this case, critical thinking). Relating

this to our data, we suggest that the theme of time represents the period of liminality, while reading and discussion could represent stepping stones through liminality, towards the gateway and transformation. Meyer and Land (2005) argue that as students acquire the threshold concept, they reposition themselves through a transformation of identity, which might be represented in our participants finding their own voice.

A final point to acknowledge is that all of the participants in the current study were from different cultural backgrounds (five from India; two from England). Despite this, they all reported a similar 'light-bulb' moment in describing their sudden realisation of the meaning of mastersness. Similar too were their feelings about the strategies which were most useful in facilitating this realisation. This further supports the notion of learners' internal perspectives being transformed during their learning journey (Meyer & Land, 2005), regardless of their starting point. It would also support the view of Carroll (2011) who argued that good teaching practice will enhance the learning of all students, regardless of their cultural background. Thus, the themes highlighted in this study would seem relevant to all students.

### ***Application to Practice***

From an educator's perspective, emphasising the importance of allocating time to study might be a key (though seemingly obvious) message to new students. There is no short cut through the period of liminality. However, our findings suggest that the key stepping stones to facilitate the journey are reading, discussion and thinking. Following this study, we built upon our existing support strategy with the addition of interactive sessions on reading and discussion skills. We also adjusted our informal feedback to students in class and individual tutorials. These changes have not been formally evaluated. However, we suggest that if students' skills in these areas can be enhanced through a learning support programme, their journey to mastersness can be facilitated.

The idea that reading should occupy a large part of a student's time is not a ground breaking idea. However, our participants raised the point that their style of reading changed so that they moved from reading for content towards critical reading. Making this transition explicit to students and helping them to develop this new style of reading

would seem to be a useful feature of a learning support programme as well as being another area that would benefit further exploration in terms of research.

Due to the importance of discussion we suggest that master's induction programmes should also include an exploration of discussion as a learning tool, making the cognitive processes involved with discussion and their relationship to master's level thinking skills explicit. In addition, coaching in the skills needed to maximise the potential for participation in a discussion group could be beneficial. Engaging in a discussion group will provide students with the opportunity to practise articulating their ideas, using newly acquired language, time to rehearse what they want to say, time to interpret the views of their peers and integrate these ideas with their own. If students understand that discussion is tool for building their knowledge, this understanding might be a strong motivator for active engagement. Our findings highlight an area for further exploration through research.

### ***Limitations of the study and future research***

This study has revealed some interesting insights into how students develop master's level academic skills. However, these findings need to be looked at in the context of a number of limitations. Firstly, it must be noted that the researchers were known to the interviewees as their university tutors. This may have inhibited their responses to the questions or they may have felt unable to make changes to the data for fear of offending their tutors. Thus, the data may not have been a full reflection of the students' perceptions and feelings. Secondly, interviews are a conversation between the interviewer and the participants, and thus are unique. A different interviewer may have resulted in a different conversation with a resulting change in the detail offered by the participant. Thirdly, we sought out students who had expressed a 'light bulb moment', where they suddenly understood the meaning of mastersness. Other students reported a slow realisation: more of 'dimmer switch' turning on of their awareness. These students may have provided us with just as valid data about their journey. The apparent difference in the rate of realisation in different students could provide a subject for future research. Comparing the experiences and perceptions of students who have undergone both 'light-bulb' and 'dimmer-switch' progress could provide us with a more rounded understanding of this important part of a student's journey to mastersness.

Finally, all of the participants were engaged in a postgraduate taught programme in physiotherapy. The experiences of students from different disciplines or those studying a master's by research may have been different.

## **Conclusion**

The aim of this study was to explore students' journey to mastersness in order to identify key factors that influenced this transition and subsequently enhance our practice in facilitating and supporting this. Our findings have shed some light on the nature of the transition of students to mastersness and the detail of students' understanding of becoming a master and how this develops. Having their own voice was what they perceived as masteresness, the key factors in their development of this mastersness were discussion, reading and thinking which all require time. Of these themes, discussion was felt by participants to have the most profound effect on the development of an understanding of mastersness. Their voice resulted from being able to think more critically and share their opinions. Thus, critical thinking was the end point of their journey and the employment of thinking during reading, discussion as well as thinking itself were crucial factors in its development. We have related our findings to teaching practice and suggested a number of strategies to facilitate students' transition to mastersness.

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## **References**

Bligh, D. (1986). *Teach thinking by discussion*. Guildford: Society for Research into Higher Education and NFER-Nelson.

- Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3: 77-101
- Brookfield, S.D. and Preskill, S. (1999). *Discussion as a way of teaching: tools and techniques for University Teachers*. Buckingham: Open University Press.
- Carroll, J. (2011). *Teaching International Students*. Higher Education Academy Workshop. 17th February 2011, Waterloo Campus, King's College London.
- Cope, G.D. (2014). Methods and Meanings: Credibility and Trustworthiness of Qualitative Research. *Oncology Nursing Forum*. 41: 1, 89-91
- Cresswell, J.W. (1998). *Qualitative Inquiry and Research Design: Choosing among five traditions*. Thousand Oaks: Sage Publications.
- Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspective in the Research Process*. Los Angeles: Sage
- Denzin, N.K., and Lincoln, Y.S. (1994). (Eds) *Handbook of Qualitative Research*. London: Sage Publications.
- Denzin, N.K., and Lincoln, Y.S. (2000). (Eds) *Handbook of Qualitative Research* (2<sup>nd</sup> ed). London: Sage Publications.
- DiCicco-Bloom, B. and Crabtree, B.F. (2006). The qualitative research interview. *Medical Education*. 40: 314-321.
- Hollander, J.A. (2002). Learning to discuss: strategies for improving the quality of classroom discussion. *Teaching Sociology*. 30: 317-327.
- Jackson, A., and Eady, S. (2008). Perceptions of Masters level PGCE. Paper presented at the *British Educational Research Association Annual Conference*. September 3-6 in Edinburgh, Scotland.
- Kuhn, D., (1991). *The skills of argument*. Cambridge University Press.
- Lincoln, Y.S., and Guba, E.G. (1985). *Naturalistic Inquiry*. Newbury Park: Sage Publications.
- McEwen, L., Duck, R., Haigh, M., Smith, S., Wolfenden, L., and Kelly, K. (2005). Evaluating the 'postgradateness' of vocational taught Masters environmental courses: student perspectives. *Planet* 14: 8-12.

- McEwen, L., Monk, J., Hay, I., Kneale, P., and King, H. (2008). Strength in Diversity: enhancing Learning in Vocationally-Orientated Master's Level Courses. *Journal of Geography in Higher Education* 32: 101-119.
- Meyer, J. H. F., and Land, R. (2003). Threshold concepts and troublesome knowledge (1): Linkages to ways of thinking and practising within the disciplines'. In *Improving Student Learning: Improving Student Learning Theory and Practice – Ten Years On*, Ed. Rust, C. Oxford: Oxford Centre for Staff and Learning Development.
- Meyer, J.H.F., and Land, R. 2005. Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning. *Higher Education* 49: 373–388.
- Mistry, J., White, F., and Berardi, A. (2009). Skills at Master's Level in Geography Higher Education: Teaching, Learning and Applying. *Journal of Geography in Higher Education*. 33: 123-148.
- Morse, J.M.,and Field, P.A. (1996). *Nursing Research: The Application of Qualitative Approaches* (2<sup>nd</sup> ed). Cheltenham: Stanley Thornes.
- Petty, N.J., Scholes, J., and Ellis, L. (2011). Master's level study: learning transitions towards clinical expertise in physiotherapy. *Physiotherapy*. 97: 218 – 225.
- Petty, N.J., Thomson, O.P., and Stew, G. (2012). Ready for a paradigm shift? Part 2: Introducing qualitative research methodologies and methods. *Manual Therapy*. 17 378-384.
- Schor, I., and Freire, P. (1987). What is the "dialogical method" of teaching? *Journal of Education*. 169: 11-31.
- Spearing, R., (2014). Facilitating the transition to postgraduate attainment: the experience of one postgraduate, pre-registration physiotherapy programme. *Assessment and Evaluation in Higher Education*. 39: 1, 89-101
- Stock, C.F., Phillips, M., and Vincs, K. (2009). *Dancing between diversity and consistency : refining assessment in postgraduate degrees in dance*. Mount Lawley: West Australian Academy of the Performing Arts
- Quality Assurance Agency. (2010). Master's degree characteristics, In *The Quality Assurance Agency for Higher Education*, Retrieved August 8, 2013, from [www.qaa.ac.uk](http://www.qaa.ac.uk)
- Thorne, P., (1997). Standards and quality in taught master's programmes. In: *Masterclass: learning, Teaching and Curriculum in Taught Master's Degrees*. Ed. Knight, P.T., Chap. 2. London: Cassell Education.