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Exploring Change and Continuities in Internationally Mobile Pre-Service Teachers' Conceptualisations of Effective Teaching

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Abstract: This qualitative study investigates the changes and continuities in conceptions of teaching and learning from course commencement to course completion for a group of international pre-service teachers undertaking a two-year Masters-level degree in Initial Teacher Education (ITE). Data were collected through a series of graphic elicitation activities and ranking tasks at baseline and endpoint. Findings indicate that there was: a growing emphasis on student engagement and its linkages to student learning; a shift from viewing teaching as the transfer of knowledge to learning as an active process; and a more developed repertoire of professional language to explain what is valued and why. This study provides valuable insights into international pre-service teachers' evolving conceptions of teaching and learning. These findings suggest that international pre-service teachers need many opportunities to interrogate and refine their understanding of teaching and learning and how this applies to the contexts in which they will teach.

Keywords: Initial teacher education, international students, pedagogy, pre-service teachers

Introduction

> *'It is difficult to teach using methods by which one has never learned'* (Tharp & Dalton, 2007, p. 59).

Prospective teachers enter initial teacher education (ITE) programs with preconceived notions about teaching and learning drawn from their experience as students (Darling-Hammond et al, 2005; Feiman-Nemser, 2001; Lortie, 1975). Acknowledging this, Tamir (2020) points out that reformers have been calling for Initial Teacher Education (ITE) to offer robust and coherent programs to counter the effect of these preconceived notions of teaching and learning which may not offer reliable and valid models for future practice. Further, what does this mean for internationally mobile students, those who cross borders to complete their initial teacher education studies? With significant numbers of students choosing to complete ITE outside of their home country these students may be exposed to new ways of learning (Nallaya, 2016), and according to Schweisfurth (2013) such changes in pedagogical approaches can be acutely felt and difficult to adapt to. International students may face challenges in adapting to different language, culture and instructional approaches during their

studies. As well, they are also learning to teach in an education system that may be underpinned by differing epistemological beliefs, while drawing on preconceived ideas about teaching from their own schooling. These factors may add additional complexities for these prospective teachers (Akanwa, 2015; Spooner-Lane et al. 2009; Tamir, 2020).

This study explores how teaching and learning are understood by a group of internationally mobile pre-service teachers and to what extent these ideas change during their studies in a two-year initial teacher education course situated in a country different from their own school experience. Therefore, we investigate how their ideas change during the ITE program particularly in relation to their initial conceptions of teaching and learning having been formed in another country and cultural context. The paper is organised in three sections. First, in our literature review we explore the mobility trends in international education and identify the challenges that many international students face and elaborate the situation for ITE. Next, we outline our research design. In this qualitative study, data were collected from two cohorts of international students at the beginning and end of their ITE program. These data revealed the students' conceptions of teaching and learning. Finally, the major findings, in comparing these data sets, are reported, and discussed.

International Students and Initial Teacher Education
International Education

Globally, over the past two decades the number of international students has grown steadily (OECD, 2013). In many OECD countries education has become a major export, particularly in Anglophone nations (Harmon, 2015; OECD, 2013). In Australia, international student enrolments have been steadily increasing (Department of Education and Training, 2019; Universities Australia, 2019). Up to February 2020 figures showed an increase of 8% in international student enrolments from 2019[1] (Department of Education and Training, 2020) and of these enrolments many students are choosing to complete their ITE qualifications in Australia (TEQSA, 2019).

This mobility enables opportunities for international students to interact with a range of knowledge and experiences in a new educational setting; however, there are challenges faced by these students. Challenges surrounding learning in a second language have been identified, that not only affect academic performance, but may hinder socialisation into the host nation (Akanwa, 2015; Kuo, 2011). The following studies explore issues in adjusting to a new culture (Spooner-Lane et al., 2009) and advocate the importance of programs taking into consideration cultural differences of international students (Barton & Billett, 2017). Further, difficulties adjusting to new and/or unfamiliar curriculum content that is closely linked to the host culture and society, have also been highlighted (Yun & Le, 2011).

Moreover, while adjusting to new courses and course content, international students may be exposed and required to adapt to new ways of teaching and learning (Schweisfurth, 2013). Yun and Le (2011) contend that unfamiliar teaching and learning approaches are "one of the greatest adjustment difficulties for many international students" (p.242). Yun and Le propose that when teaching and learning approaches experienced by students in their home country conflict with those of the host nation, these students take longer to adapt to their new educational environment. In considering the challenges in adapting to new teaching approaches, Kember's (2001) study of tertiary students within Hong Kong is useful. Whilst

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[1] The implications of the COVID-19 pandemic and border closures in Australia from March 2020 have resulted in some international students being unable to travel to Australia for study. The total number of international students in ITE was less in 2021 than at the commencement of 2020 yet enrolments of international students into postgraduate programs continue as many international students reside in Australia and have stayed abroad to continue their studies.

this is not a study of international students, it is useful in illuminating the power of beliefs in how students adjust to new pedagogical approaches. Kember found that students held strong beliefs about teaching, learning and knowledge as they adapted as higher education students. For students who saw effective teaching in terms of knowledge transfer, there was difficulty in appreciating interactive and facilitative models of teaching they experienced within higher education. These findings were reinforced in a later study (Kember et al., 2003) in which students framed their perceptions of teaching quality through their conceptions of learning. In order to shift their epistemological beliefs and transition to facilitative or alternate models of teaching, students needed to be exposed to these approaches on a gradual and ongoing basis. Further, as Burch (2008) found, it took considerable time for the international students in his study to modify their "prior learning experiences" where they were different to "local university teaching and learning styles" (p.19). These findings are pertinent to international students, who in crossing borders, may be exposed to both new modes of learning and different models of teaching, and who need to make adjustments, not only as students, but as prospective teachers.

Teacher Education

The challenges of adapting to new ways of teaching and learning may become intensified for international students undertaking ITE courses that embed differing epistemologies from those they experienced as learners in their home countries (Akanwa, 2015; Spooner-Lane et al., 2009). Indeed, international pre-service teachers experiences may be more complex because of the practical component of ITE in which they may face challenges in adjusting to a new school system and are required to adapt to practical realities during the teaching placement (Nallaya, 2016; Spooner-Lane et al., 2009) What governs teachers' actions is complex and constructing ideas about practice begins before formal teacher preparation (Dembélé & Lefoka, 2007). As such, pre-service teachers tend to replicate the type of teaching they experienced as students (Spooner-Lane et al., 2009). Lortie (1975, p. 71), reported that "the average student has spent 13,000 hours in direct contact with classroom teachers by the time he graduates from high school" and concluded this has a profound impact on the conceptualisations of teaching that teachers and prospective teachers hold. He labelled this the "apprenticeship of observation". Yet, as Darling-Hammond et al. (2005) explore in their discussion of prospective teachers, these assumptions may go unexamined in ITE. As argued by Tamir (2020), ITE education programs have been viewed as a weak intervention in challenging such assumptions and underlying beliefs. As such, more coherent and robust programs are required. This also suggests that the often-implicit ideas that drive teachers' practice must be given the time and space to be explored and critiqued by pre-service teachers throughout their ITE programs.

Examining Epistemological Beliefs

In the case of international students, learning to teach is further complicated by the different systems in which their initial conceptions were formed and the context in which their ITE studies take place. So not only do international pre-service teachers need to develop a vision of good teaching and a clear sense of pedagogy required by all students (Tamir, 2000), they may need to adjust to prevailing teaching expectation and approaches underscored by differing epistemological beliefs. The challenges of adapting to unfamiliar epistemologies was highlighted in Cruickshank's (2004) study of a retraining program for

overseas-trained teachers to upgrade their qualifications to teach in Australian schools. Findings indicated that many required support in adapting to the predominant teaching and learning approaches in Australian classrooms and those incorporated in the training program.

Other studies have documented the critical importance of teacher education programs that enable international students to recognise and critically reflect on the problematic nature of educational practice. Liyange et al.'s study (2016) showed how a failure to interrogate the epistemologies and pedagogies advocated in an ITE course at an Australian university led to a Fijian student's uncritical acceptance of new learning and the undervaluing of his/her existing knowledge. The importance of enabling international students to interrogate and integrate pre-existing and new epistemologies and develop their professional identities was highlighted by Anderson et al. (2018) who documented challenges faced by international students as they returned to teach in Malaysia. They found that reflecting on their practice enabled these international students to sharpen awareness of the needs within the teaching environment. As such these teachers, upon returning to Malaysia, were able to adapt the teaching approaches, learned in New Zealand, to the requirements of the different learning environment in Malaysia.

Further, a number of studies have explored pre-service teachers' epistemological beliefs and how they impact on approaches to teaching in different subject areas. Tanriverdi (2012) in a study in Turkey, found that there was an interrelationship between the beliefs held about learning and knowledge and the subject discipline. For example, science pre-service teachers tended to believe that there was only "one correct truth" and science and maths pre-service teachers believed learning was linked to innate ability, which contrasted with beliefs in other subject disciplines. Similarly, Eren (2009), focusing on Turkish primary-school student teachers, found that the students' conceptions about teaching and learning were "significantly affected by the fields of study" (p.80). What these studies highlight is how teachers hold different epistemological beliefs and ideas about the nature of knowledge and learning.

While much has, and continues to be, written about what constitutes effective or good teaching (for example: AITSL, 2017; Muijs & Reynolds, 2017), a crucial point to highlight is that "there is no one model of good teaching" (Moore, 2004, p. 83). Perceptions of effective teaching are interwoven with notions about what is valued in any given context. Furthermore, it is important to emphasise that the perception of effective teaching is contingent upon how "effective" is defined and by whom.

Methodology

This qualitative study investigates how international students – those who have pursued teacher education outside of their home country – articulate their understanding of teaching and learning before and during their experience of a Master of Teaching (MTeach) program in Victoria, Australia. It is designed to provide insights into international students' conceptions of good teaching from their initial views on entry to the program and whether these ideas change over time.

The research questions guiding this inquiry are:
1.   How is teaching and learning understood by this group of international students?
2.   In what ways do international students' attitudes and understanding of the teaching and learning process change over time?

The Research Context

The participants in this study were international pre-service teachers undertaking their initial teacher education – Master of Teaching program at a metropolitan university in Victoria, Australia. The program interlaces academic study with professional practice explicitly designed to link theory, coursework and practice, equipping pre-service teachers with a range of teaching practices. Ethics approval was obtained to undertake this research. The participants were drawn from early childhood, primary and secondary streams of the program from seven countries (China, Philippines, Chile, Brazil, Malaysia, USA and Turkey). Table 1 outlines the participants in this study. The 16 participants at endpoint were those participants who volunteered to return for the second round of data collection, allowing for comparison of their endpoint and baseline data. These participants comprise the sample from which the analysis for this paper was undertaken. The cohorts refer to different intakes.

Cohort	Participants Baseline	Participants Endpoint	
1 Intake 2017	42 [February 2017]	8 [October 2018]	China -5 Turkey – 1 Brazil – 1 Philippines – 1
2 Intake 2018	76 [February 2018]	8 [October 2019]	China – 6 Malaysia – 1 USA - 1

Table 1: Number of International Pre-Service Teachers in the Study

Baseline and endpoint data were collected through a series of graphic elicitation activities, adapted from Akyeampong et al (2006), which are outlined below:

Visions of Good Teaching and Learning

Participants were asked to respond to a series of prompts designed to document students' conceptualisations of teaching and learning. These prompts were: 'what is learning'; 'describe the qualities of a good student'; and 'reflect on a "good" lesson as a student/ pre-service teacher.

Ranking Activity

Participants were asked to rank 15 statements about learning in response to the cue: "*When people learn, they....*". The statements ranged from rote learning activities to activities involving collaborative and experiential learning (Appendix A). These rankings provided insights into the teaching and learning priorities of our participants at the start and end of the MTeach program and captured changes in the rankings and the reasons they articulated.

In combination, these activities were designed to provide insights into what our international pre-service teachers understood to be successful classroom practice at the beginning and end of their pre-service program. The different data sources allowed for triangulation of the data across all the responses from each participant. Additionally, at the endpoint, the returning participants were given access to their original data and asked to complete two further questions:

-      *How do these rankings compare to your first set of rankings? What surprised you?*
-      *When you look over your responses from the start of your course, what do you notice? What views about teaching or learning have stayed the same or have changed?*

     Data analysis was undertaken through several phases. Working with the data from the two cohorts, two researchers independently undertook data analysis of the baseline and endpoint data for one cohort. In the next phase, the findings were compared in relation to identifying cross-cutting themes across students and across cohorts. Following this phase, each researcher completed a more detailed analysis of several participants, analysing all the data sources using the following three questions as a guide.

-      *What attitudes and understandings were constant? What changes, if any, were apparent?*
-      *Were there similarities across the data sources?*
-      *How did the student reflect on both sets of data?*

     Three main themes emerged through this iterative process of analysing the data: student engagement and its role in learning; developing an expanded range of pedagogical approaches; and the increased use of professional language. Each of these themes is explained in the next section.

Findings

     The data were analysed for both breadth and depth. Each individual student's experience was examined and patterns across all the participants were compared, noting the extent to which their attitudes and priorities changed over time. Whilst we identified three overarching themes with specific labels, we recognise these labels are not discrete and there is overlap between them. However, each has a distinct focus and is intended to capture nuances across the breadth of responses. Pseudonyms have been used and direct participant quotations are indicated in italics.

Student Engagement and its Role in Learning

     In selecting examples of a "good lesson", participants tended to refer to approaches that were enjoyable or stood apart from typical classroom activities in the baseline data. While the endpoint data contains similar perspectives, that is, if students are to be engaged in learning, they need to enjoy their learning, there are suggestions of deeper understandings of "engagement" and its relationship to learning development and self-efficacy. References to indications of "student engagement" in the endpoint data referred strongly to students as active participants in their learning, expressing opinions, asking questions, and evaluating their own learning.

     While several participants did not mention "engagement" specifically in their responses, there was a clear shift in how they identified good lessons, from being "fun", to a good lesson being structured and purposeful in the endpoint data, during which students achieve specific learning goals. Table 2 presents illustrative examples of this shift.

Pre-service teacher	Baseline data "A good lesson"	Endpoint data "A good lesson"
Bai	*"Hilarious"* and *"enjoyable"* presentation of poems	Explicit teacher modelling of essay structure resulting in students being thrilled that they have devised essay plans.
Rosanna	"*Freedom of learning for the first time*" without a textbook	Experiential learning during which children learned Japanese culture and language via the making of sushi.
Angela	Describing a particular teacher's lessons: *"he always encourages us to talk in front of the class"* and *"when he sees students having trouble expressing their ideas, he always… supports students".*	A French lesson where even the naughtiest students were engaged in the lesson.

Table 2: Reflections on "A Good Lesson"

Angela's reflections demonstrated a clear understanding of the concept of student engagement. Her endpoint description of a "good lesson" shows a growing understanding of the linkages between engagement and learning. In describing a French lesson, she shares how "*everyone, even the naughtiest ones, was engaged in practising the language*". Reflecting on why she chose this lesson, Angela explains:

> *[a]t the start of the placement, my way of teaching is very rigid and teacher-centred...My mentor pointed that out and inspired me in making the lesson more student-centred and that was the first lesson I achieved it.*

The lesson was illustrative of how, in trying out different approaches, referred to here as student-centred, resulted in success, with her observation that all students were actively engaged in the learning process. In her words:

> *learning is an ongoing process… it involves engagement, interaction, asking questions; and student-centred teaching which engages and supports students is more effective than teacher-centred.*

Angela's definitions of "a good student" illustrates how her emphasis in the baseline data, focused on "*good behaviour*". However, at the endpoint she perceptively explains that

> "*before the placement, I had some specific criteria for a 'good' student, but now, I tend to think there is no 'good' or 'bad' student and every student has their shining points*".

> Interestingly, Angela also sees the importance of students being "*confident about themselves*", which suggests that she saw confidence as an important component of student engagement.

Other participants' definitions of "learning" and "a good student" reveal similar patterns illustrating how their understanding of student engagement in the learning process evolves from baseline to endpoint data. Bai's definition of "a good student" shifted from "*hardworking*" at baseline to "*carry[ing] out inquiry*", "*empathis[ing] with people from different time and space*", "*think[ing] about how one thinks/learns*" and being "*internally driven*" in endpoint data. While Bai does not mention "student engagement" specifically in her responses, she highlights the importance of students "asking questions" as important in both baseline and endpoint data. This suggests that Bai, even at the commencement of her course, believes that interactive learning and teaching encourage student participation and hence, engagement. In the endpoint data, the significance Bai places on students' "*giv[ing] their own opinion[s]*" has grown, suggesting a consolidation of her earlier views.

Student agency features strongly in Rosanna's definitions of a "good student" and the "learning" and "good lesson" responses. The themes in Rosanna's baseline and endpoint data do not change significantly yet are consolidated through her experience in the course. For

example, students "*mak[ing] sense of what they do*" is ranked first in both sets of Rosanna's data suggesting an understanding of the importance of metacognition for deep learning. At endpoint, the value of "*mak*[ing] sense of the things they know" and "mak[ing] *decisions about what is important and what is not*" suggest a strong level of student self-awareness and thus engagement in their own learning.

Expanded Range of Pedagogical Approaches

Due to the comparative nature of the data collection, the endpoint data offered an opportunity for our participants to reflect on their teaching practice and provided illustrations into their priorities, over time, of effective teaching and learning. Broadly, across the two cohorts we found a recurring pattern of a shift from viewing teaching as the transfer of knowledge to learning as an active process whilst acknowledging the role of teacher in facilitating this. Some illustrative examples can be found in Table 3.

Pre-service teacher	Baseline	Endpoint
Bai	*"memorising and application"* *"enhance ability and skills"*	• *"hav[ing] a complex understanding of the world we live in and of humanity itself"* • *"to carry out inquiry"* • *"to think about how one thinks/learn"*
Rosanna	*"acquiring knowledge"* *"facts", "theories"* and *"points of view".*	*"enabl[ing] you to make sense of the world around you";* by *"harness[ing] these skills and knowledge, you can… problem-solve or understand how things relate or behave".*
Ting	Defines learning as *"input information, facts, laws and principles"* *Input thoughts, ideas, cultural, custom*	*By various theories: constructivism, Sociocultural, Critical* *Best learning happens during interactions*

Table 3: Illustrative Examples of Expanded Pedagogical Practices

These examples indicate some of the ways in which ideas about learning have broadened. Across the data sources, the acquisition of knowledge and skills were still highlighted; however, this acquisition is positioned in relation to broader notions of learning with references to problem-solving, sense-making, questioning and being able to apply knowledge in new situations.

Increased references by participants towards constructivist approaches such as inquiry learning, Bloom's Taxonomy, scaffolding, and collaborative learning suggest a shift towards pedagogical approaches designed to enable learning in ways that go beyond knowledge acquisition. These teaching approaches require the application of specific skills in the planning and implementation of lessons. Having confidence to manage classrooms, run learning activities and provide clarity for students were raised in this expanded notion of teaching responsibilities. Referring to setting up flexible play, Peng says, "*The trial was successful, and the experience increased my confidence in teaching.*" Similarly, Jing states "*I am clear what I should do. Students are clear about their tasks and learn something.*

In the endpoint data, there were increased references to the importance of reflection in the process of learning, for both teachers and students, which is consistent with a stronger focus on constructivism. Broadly there was heightened awareness of the need for metacognition to aid learning. For example:

> *Because students were able to self-assess their learning and find their weak spots and improve their study techniques (Amalia)*

> *… it is not enough to guide students to get the "correct" answer – it is also crucial to develop metacognition as it supports children to become more… actively responsible for their own learning (Angela)*

This idea of students assuming greater responsibility for their own learning is illustrated in Kristina's reflections about stories and books. In the endpoint data she describes how:

> *The children drove their own learning by asking questions. We also used ICT to find answers to their questions. The children were very involved, it was hands-on, and the children engaged in problem solving and inquiry. They created their own books which was a visual representation of all they've learned about the topic.*

In her reflection, Kristina explains how the lesson was "*scaffolded*" through a discussion of stories prior to the completion of the final task. When using this example, she emphasised "*the importance of collaboration*" and "*peer-learning*". Kristina further explained that *deep learning*" occurs in the "*creat[ion] of new knowledge*". This indicates her expanding understanding of the complexities surrounding learning and the importance of allowing students to have agency in their own learning.

Increased Use of Professional Language

Across the participants we found the use of development of professional language had increased at the end of the course. This was used to articulate understanding of pedagogical practices and in some cases indicates the theory underpinning these practices. For example, Hiranur's understanding of learning extended beyond acquisition of facts and skills. In her reflection on both sets of rankings. She states:

> *it seems like I had a very good understanding of what learning meant back then [at the commencement of the course], but I did not know how to put it into words.*

and

> *I now realize that I have used an accurate terminology to describe it. Overall, I feel like I obviously can explain how learning happens much better compared to two years ago.*

In her endpoint data, Hiranur focuses on terminology including *collaborative learning, dialogic teaching", the "construct[ion] of knowledge"*, and the importance of students being "*intrinsically motivated*".

Similarly, reflecting shifts in language, Shui use of words such as "*acquire", "fact*" and "*information*" in the baseline data is transited to "*knowledge", "understanding", "inquiry"* and "*students" engagement*" in the endpoint data. Rosanna's responses revealed further strong examples of the use of conceptually sophisticated terms, such as "*engagement*" and "*enquiry*" at the end of the course. Rosanna initially defined learning as "*input information, facts, laws, principles*". Rosanna's reflective comments, at endpoint, emphasise how the theories covered in the program had helped develop her "*toolkit*", and that she now pays more attention to the learning process rather than the "*narrow understandings of the performance*".

Discussion

The MTeach program provides an important context in which to consider these findings. In light of Tamir's (2020) and Feiman-Nemser's (2001) argument that ITE programs need to offer a clear vision of good practice, the coherence of the program in foregrounding evidence-based practice provides a consistent and robust framework for pre-service teachers to develop their vision of good practice. Further, Tamir (2020) argues, that programs which offer a coherent vision and clear professional standards have a greater impact on the initial conceptions and practices of new teachers than programs that are 'less coherent and are less intent on linking between theory and practice' (p.3). The data provides a snapshot of two cohorts from the MTeach program and insights that arise form comparing data collected at the beginning and endpoint of their course. We are not claiming that each student has adopted a coherent vision that they have then enacted in practice. Rather we present data that provides insights into trends across the international pre-service teachers in this study showing the range of changes and continuities that were evident in our analysis.

In exploring the conceptions of the participants in our study and their visions of practice, we refer to Robin Alexander's (2008, p.29) definition of pedagogy which provides a useful framework for considering the examples of pedagogical practices in the baseline and endpoint data:

> *Pedagogy is the observable act of teaching together with its attendant discourse of educational theories, values, evidence and justifications. It is what one needs to know, and the skills one needs to command, in order to make and justify the many different kinds of decisions of which teaching is constituted.*

Before starting their ITE program, we found the participants generally attended to "teaching as act" with a noticeable shift at endpoint toward articulating the ideas behind their teaching — "teaching as ideas". This proved a useful distinction for analysis. The focus in the baseline data from our study is predictable in that it corresponds with the literature that indicates that pre-service teachers bring with them visions of teaching. Stuart et al. (2009) identified that earlier experiences such images of teaching; experiences with children; motivations (hopes and fears); as well as individual personalities impact on participants' conceptualisations of teaching on entry to ITE. The consequence of these preconceptions is that there can be gaps in pre-service teacher's understanding of the teacher's role upon entry to ITE. Indeed, without meaningful input and knowledge, the models of teaching from our experience as students are likely to persist among pre-service teachers (Stuart et al., 2009).

Evolving Conceptions of Teaching and Learning

In this study we explored examples of how our international pre-service teachers' understandings of teaching and learning evolved over the course of the ITE program. While there is variation across the participants and the extent to which they incorporated a range of pedagogical approaches in their lessons, there is evidence of greater attention to the "teaching as ideas" component of pedagogy, moving beyond the "teaching as act" focus at the start of their ITE studies.

A clear trend across participants was a shift from a focus on the visible acts of teaching initially, to students and their learning needs at endpoint. In this dialogue, we see evidence that our international pre-service teachers were able to link their practice to elements of theory presented through the coursework, reflecting with greater attention on the ideas underpinning teaching. For instance, in some of their reflections on teaching and learning, the focus goes beyond the "knowledge" itself and addresses the identity of teacher

and the role of students, as active agents. These ideas are reflected in Hiranur's comments about her future approach to teaching when she says, "*I learned how to prepare a ground for students to learn.* Similarly, Bai asserts students to a significant position as "*cooperative, resilient, eager to contribute to learning*", and Kristina's attends to students driving "*their own learning*". Angela's illumination that her endpoint was not to get to the one "*correct*" answer and Angela's shift from an authoritative, hierarchical teaching and learning attitude toward more student-centred and collaborative one, are illustrative of these trends. Notably, Rosanna's view of school students as a better "*citizens*" and Amalia's view of learners as those who should "*make sense of things on their own*" reveal significant transformation. Such responses speak to demonstrate a conceptualisation of teaching that moves beyond knowledge transmission.

Further, these shifts are consistent with the architecture of the MTeach program that entwines professional practice experiences with on-campus studies, a factor identified by Tamir (2020), as important in providing pre-service teachers with a framework to support them to interrogate their own implicit beliefs. The MTeach program asks participants to focus on students' learning by examining what students, do, say, make and write as the visible products of learning (Kriewaldt et al., 2017). The program's design is intended to create a shift in focus from teacher actions to student learning in relation to teaching. As Ting articulates:

This lesson went well...I can see how I've engaged children and how they've achieved their outcomes.

In the articulation of "good lessons" we see a shift in our participants' responses, as they learn to reflect on, and in, practice. As Loughran (2010, p. 7) identified, "in moving to the other side of the desk we can sometimes act from these superficial understandings of practice"; hence as the begin to make those linkages between theory and practice, we also see a shift in focus from teacher actions to the student, growing attention to evidence of student learning, and how this can be identified.

Articulating Ideas About Teaching

In the endpoint data, the development of the pre-service teachers' professional language became evident. Using this professional language, participants demonstrated their expanded capacity to articulate their teaching practice, their developing knowledge about teaching, and their understanding about the ideas behind the teaching. Grossman et al. (2009, p. 2096) coined the phrase "grammar of practice" as a way of conceptualising components of professional practice and a language for articulating teaching practice. Importantly, when a practice is named, it can more easily operate as a reflective tool for teachers (Mesiti & Clarke, 2018). Developing a professional vocabulary and the naming of practices offer possibilities for pre-service teachers to reflect on their practice with a shared professional vocabulary – a grammar of practice — and provide opportunities to participate in dialogue within a professional community. As Grossman et al. (2009) contend in relation to teacher preparation: "Without the existence of a language and structure for describing pedagogical practice the provision of learning opportunities for novices is limited" (p. 2075). Hiranur clearly articulated that her studies enabled her to use more professional language to describe and interpret teaching and learning. This is also evident in references to and the valuing of approaches that include: "*collaboration*", "*experiential experience*", "*inquiry learning*" and "*scaffolding*".

It is not surprising that an ITE program would expand the range of pedagogical approaches of pre-service teachers and equip students with increased professional language;

however, this study found that these graduating teachers were able to articulate links between theory and practice and provide evidence of their development of a "grammar of practice". This facilitated the articulation of their conceptualisations of teaching and learning. Interrogation of these conceptualisations, through the data collected, revealed shifts toward constructivist notions of learning. In reflecting that the teacher's role goes beyond the provision of knowledge to a conceptualisation where pedagogical approaches are more student-centred, recognises the teacher's expert role in orchestrating them. This aligned with the transition for some pre-service teachers to focus more explicitly on students, their engagement and individual approaches to learning.

Conclusion

Exploring both "pedagogy as act" and "pedagogy as ideas" is complicated by the changing context of our participants, since as international pre-service teachers they are learning to teach outside the education milieu of their childhood learning experiences. As Stuart et al. (2009) explain, each teacher comes with their own memories, experiences, and visions of teaching. At the start of this paper, we acknowledge the difficulty in teaching using methods by which you have not learnt. Our findings highlight participants' evolving conceptualisations of teaching and learning that not only attend to the visible aspect of teaching but also the theories and ideas underpinning teacher actions. These evolving conceptions articulate teaching as varied and complex in addressing the breadth of student needs. They attest to the importance of enabling pre-service teachers to reflect on their beliefs surrounding the nature of knowledge as they explore unfamiliar epistemologies (Liyange et al., 2016).

The cohesive vision and coherent structure of the MTeach program (McLean Davies, et al., 2017) provides an explicit framework in which PSTs are required to link theory from their coursework with their professional experience and through their assessment across subjects. This cohesiveness in the course structure and the explicitly articulated priorities underpinning the course are consistent with Tamir's (2020) findings about the need for coherent programs to help counter the effect of preconceived notions of teaching and learning. Such robust programs help counter the effect of naïve ideas about teaching by offering reliable and valid alternative visions.

Acknowledging the differences across these international pre-service teachers the findings presented here provide insights into different ways in which perceptions of teaching and learning evolved through the ITE program. The findings offer insights for teacher educators by suggesting that in this process of border crossing, international pre-service teachers can benefit from opportunities to interrogate and refine their understanding of teaching and learning, in order for them to develop a clear vision of good practice, sometimes challenging their epistemological beliefs in doing so.

In conclusion, these findings rely on self-reported data that provide insights into how preconceptions can be shaped through engagement in a cohesive ITE program, particularly one that explicitly emphasises the linkages between theory and practice. These findings revealed how the international pre-service teachers in this study expanded their capacity to make those theory-practice linkages that in turn enabled them to engage with the ideas underpinning the pedagogical approaches they learned to use. Their expanded vocabulary of educational terms enabled them to articulate their ideas clearly. Indeed, this study provides examples of how international pre-service teachers were able to overcome some of the challenges of learning to teach as evidenced in how their existing conceptualisations of teaching and learning evolved over the course. Further investigations could be conducted on

how international preservice teachers apply ideas in their teaching practice using classroom observations. The addition of interviews and focus groups would offer the opportunity to further interrogate underlying assumptions and allow deeper expressions of reasons and justifications for the responses provided in the current data. Nonetheless the data collected at the beginning and end of the participants' ITE studies does provide a snapshot of ideas and priorities related to teaching and learning at two distinct timepoints. Recognising that this research is limited in scale, this study contributes to better understanding the ways in which international students, who bring with them experiences from schooling in another country, adapt to a different education system and give consideration to potentially different epistemological approaches that underpin attitudes to teaching and learning.

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Appendix A – Ranking statements (from Akyeampong, Pryor, & Ampiah, 2006).

When people learn…
They know more
They ask questions
They discuss things with others
They do things more quickly
They find answers to questions
They get help to do things that they would not be able to do by themselves
They give their own opinion
They agree or disagree with others
They make decisions about what is important and what is not
They make sense of the things they do
They memorise facts
They make sense of the things they know
They practise until perfect
They repeat the facts when asked
They try out new ideas