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## Developing beliefs about classroom motivation: journeys of student teachers

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## **Developing beliefs about classroom motivation: journeys of preservice teachers**

### **Abstract**

This paper examines the developing beliefs about classroom motivation of eight preservice teachers during teacher education. The framework conceptualises the contexts in which preservice teachers participate and the filtering effect of prior beliefs. Qualitative analyses of multiple data sources reveal two distinct trajectories in the development of beliefs about classroom motivation. The findings highlight the importance of filtering prior beliefs, alignment and conflict of ideas, significance of self-motivating factors and power of emotions in developing beliefs about classroom motivation. Implications emphasize the importance of enabling preservice teachers examining existing beliefs and integrating these with learning during teacher education.

Keywords: preservice teachers; beliefs; teacher education; classroom motivation; teacher beliefs.

### **1.0 Introduction**

Enhancing and maintaining student motivation is an issue of common concern among preservice teachers. While some feel confident in their knowledge about motivation in classrooms, based on their own experience as students and other life experiences, others who have shared classrooms with unmotivated students or who have been unmotivated at school themselves, are highly concerned about how they will approach student motivation when teaching in classrooms. Furthermore, preservice teachers are aware that poor student motivation has implications for engagement and achievement, and may lead to behaviour management issues, which are also challenging for beginning teachers. Given the importance of understanding classroom motivation for preservice teachers, and the obvious benefits of being able to enhance and maintain student motivation, there is value in understanding how preservice teachers learn specifically about classroom motivation. The issue of how teachers learn has emerged as an important research topic in recent years (Beijaard, Korthagen, & Verloop, 2007, p. 90; Meirink, Meijer, Verloop, & Bergen, 2009a, 2009b; Parise & Spillane, 2010), yet little research has sought to develop understandings about how preservice teachers learn, and acquire beliefs, about classroom motivation. The unique contribution of this study is the development of a framework to understand how student teachers develop understandings about classroom motivation and exploration of the learning process through the journeys of eight preservice teachers. Understanding the learning journeys of preservice teachers, and how beliefs about classroom motivation emerge and are developed, has important implications both for initial teacher education and teacher professional development.

### *1.1 Teacher beliefs*

There is a wealth of research concerning teacher beliefs (see for example, Kagan, 1992; Pajares, 1992; Raths & McAninch, 2003). Teacher beliefs have been defined as “suppositions or commitments and are based on evaluation and judgement” (Meirink, Meijer, Verloop, & Bergen, 2009b, p. 90) and as “tacit, often unconsciously held assumptions about students, classrooms, and the academic material to be taught” (Kagan, 1992, p. 65). Beliefs (or lay theories) about teaching and learning, will guide teacher decisions made about the teaching-learning process, along with selection of specific content (Smith, 2005).

There is also a growing body of research concerning preservice teacher beliefs (Joram & Gabriele, 1998; Richardson, 2003). In light of their extensive experience as learners, it is reasonable to expect that preservice teachers enter teacher education already possessing ‘personal history based beliefs’ (Salisbury-Glennon & Stevens, 1999) about teaching and learning (Anderson et al., 1995; Joram & Gabriele, 1998; Kagan, 1992; Smith, 2005). These beliefs are formed through students’ own educational experiences (formal and informal) and life experiences, such as previous careers or parenting. Studies of preservice teacher beliefs have shown that some students hold deeply ‘entrenched beliefs’ (Ashton & Gregoire-Gill, 2003; Chinn & Brewer, 1993) while others hold ‘vague’ and ‘fragmented’ beliefs (Winitzky & Kauchak, 1997).

Beliefs shape how preservice teachers interpret and respond to knowledge and experiences during teacher training (Chong & Low, 2009) and can act as ‘filters’ through which they interpret and view others’ teaching (Kagan, 1992). In addition, the process of learning about teaching involves ‘filtering’ new knowledge through existing beliefs systems before transforming it and making it part of their own approach (Bullough, 1991; Kagan, 1992). Furthermore, Kagan (1992) states that “personal beliefs function as the filter and foundation of new knowledge” (p. 75). Thus, preservice teachers perceive their learning about teaching “through the lens of their prior knowledge, including their preconceptions and beliefs” (Eilam & Poyas, 2009, p. 88). The filtering role of prior knowledge and beliefs therefore, has a potentially critical impact on preservice teachers’ learning during formal teacher education.

Pajares’ contention, many years ago, that “research on the beliefs of preservice teachers is scarce” (Pajares, 1992, p. 328) and more research was needed on the nature and impact of beliefs on preservice teachers, is still relevant. Interest in teacher beliefs about student learning and motivation and the influence these have on classroom instruction (Turner, Christensen, & Meyer, 2009) is recent. Preservice teacher motivation (Nolen, Ward, Horn, Campbell, & Mahna, 2007) has also received recent attention with researchers interested in ‘motivational filters’ (Nolen et al., 2009) that influence students’ rejection or selection of ideas promoted during their teacher education. Even so, there is little research that specifically investigates preservice teachers’ beliefs about classroom motivation and how such beliefs develop. This study, therefore, is timely as it investigates how preservice teachers learn about motivation and the role played by initial understandings and beliefs.

### *1.2 The role of prior knowledge*

As university educators we have developed a growing awareness that preservice teachers’ preconceived notions about classroom motivation can have a significant influence on university learning, classroom practice and teaching success. Many preservice teachers enter teacher education with extrinsic, reinforcement based beliefs about classroom motivation

which are often resistant to change and may be reinforced during field placements where students may be exposed to a range of reward systems. While there is significant argument that prior knowledge is important in learning to teach, and that teachers use new information to confirm and strengthen existing beliefs (Tillema, 1998), prior knowledge can affect learning in two ways. It may help facilitate learning by “providing a basis for understanding and judging the validity of solutions to problems” (Pintrich, Marx, & Boyle, 1993, p. 191) or impede learning when providing divergent views from those being espoused. Personal beliefs can act as ‘anchors’ and facilitate learning that is congruent with existing knowledge, or beliefs may be ‘brittle’ and impede learning when they are inconsistent with knowledge to be learned (Kagan, 1992, p. 75). One aspect of the present study investigates the origin and role of beliefs of classroom motivation in the motivation learning journeys of preservice teachers and the extent to which they create ‘filters’ (Kagan, 1992, p. 77; Nolen et al., 2009) that facilitate or limit learning during teacher education.

### *1.3 Development of beliefs*

Some literature reports preservice teachers hold fixed conceptions, beliefs and perceptions about teaching (Mahlios & Maxson, 1995; McDiarmid, 1990) and that these prior and beliefs play a powerful role in development of teacher identity. Other research demonstrates that preservice teacher beliefs are significantly influenced by mentors during classroom experiences. Kagan (1992, p. 75) for example, cites research showing preservice teachers are influenced more by mentor teachers than by university courses or supervisors. Winitzky and Kauchak (1997) argue that vague or fragmented beliefs can be developed into a coherent belief system, whereas well organised belief systems are resistant to change and may benefit from instructional approaches that directly challenge beliefs. Despite the potential for development and change in beliefs, and influences from teachers and mentors, research illustrates that targeting preservice teacher beliefs during instruction can influence their beliefs about teaching and learning (Joram & Gabriele, 1998) and that preservice teachers’ initial beliefs do change when challenged and explored through appropriate curriculum (Tillema, 1998).

Recent research investigating the role of emotion in teaching suggests that emotion may play a critical role in changing teachers’ beliefs (Ashton & Gregoire-Gill, 2003; Zembylas, 2002). Ashton and Gregoire-Gill’s (2003) argument that ‘emotional arousal’ initiates change and that preservice teachers’ “emotional reactions to current approaches to belief change” (p. 117) need further investigation. Research into how emotions influence cognitions, motivation and behaviours is extensive (see Sutton & Wheatley, 2003 for a review). The issue of emotion in teacher education is emerging as an area of significant research interest (Demetriou, Wilson, & Winterbottom, 2009; Hastings, 2004, 2009) and understanding more about how emotions can support preservice teachers’ learning during teacher education will have implications for teacher education programmes. This study specifically examines the development of preservice teachers’ beliefs about classroom motivation and the possible factors (including emotion) that influence this development.

### *1.4 The importance of anticipated future*

The importance of an individuals’ anticipated vision of themselves as a teacher in teacher development has been recently acknowledged in the literature. Olsen (2008, p. 24) describes how teachers’ “embedded understandings of and for themselves as teachers” (p. 24) influence their own early development. In addition, preservice teachers often hold strong images of themselves as teachers in the future (Mahlios & Maxson, 1995) and these projected “teacher

selves” (Horn, Nolen, Ward, & Campbell, 2008, p. 63) influence their development. Consequently, preservice teachers’ learning is influenced by both past experiences and beliefs, and visions for the future. Even so, the literature concerning preservice teachers’ future vision in the ‘real world’ of teaching, and how this vision develops, is minimal. To contribute to the emerging understandings in the literature, this study includes preservice teachers’ visions of themselves in the anticipated real world and explores factors that influence the development of such visions.

### *1.5 Multiple contexts*

While prior beliefs may act as filters for learning during teacher education, to be successful preservice teachers need to also effectively manage and negotiate the demands and constraints of “multiple interrelated contexts” (Smith, 2005, p. 6), that influence understanding of academic content, teaching and learning. Typically teacher education students experience two main learning contexts, namely, university and classroom practice. These contexts, or ‘worlds’ (Davidson & Phelan, 1999; Horn, Nolen, Ward, & Campbell, 2008) which students are an integral part of and co-contribute to shaping, may have differing demands and may promote complementary or divergent views about learning and motivation. In addition, these contexts may promote views that are either complementary or contradictory with individuals’ prior beliefs. Furthermore, the perceptions students develop about the ideas promoted in these contexts and how they negotiate alignment and conflict between the worlds is an area of emerging research interest.

Given the scarcity of research regarding how preservice teachers learn about classroom motivation, the present study investigated preservice teachers’ beliefs about classroom motivation as they journey through initial teacher education and become qualified teachers. Specifically, the study explored how initial beliefs about classroom motivation influence development of beliefs during initial teacher education experiences, and secondly aimed to provide insights about how beliefs are formed, elaborated and negotiated through students’ experiences at university, in classrooms and by future visions of themselves as teachers.

## **2. Conceptual Framework**

The conceptual framework for this study (shown in Figure 1) is informed by the literature concerning the development of teacher and preservice teacher beliefs, and the critical factors and contextual influences in belief development. The framework includes the multiple contexts or Worlds (PastRealWorld, ITEWorld, FieldWorld and ProjectedRealWorld) that preservice teachers experience and the filtering effect of prior beliefs on belief development. The framework also features preservice teachers’ cognitions as they relate to classroom motivation within each of the four worlds, as well as the cognitive processes involved as they journey through, and experience ideas and practices of classroom motivation at the interface of the different worlds. Finally, the framework shows that potential alignment and/or conflict between ideas promoted in the various worlds may have an impact on development of beliefs.

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FIGURE 1 ABOUT HERE

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The four Worlds are described first, followed by the cognitions within Worlds and the cognitive processes between the Worlds.

### 2.1 *The four Worlds*

The *PastRealWorld* is the world from which students' initial beliefs about classroom motivation emerge. It encompasses experiences leading to the decision to become a teacher and beliefs about teaching, learning and classroom motivation on entrance to teacher training. Such beliefs are derived from students' personal experiences, experiences in schools as learners and experience with formal knowledge (Richardson, 2003). With specific regard to classroom motivation, students' understandings of their own motivation and others' motivation (through observation and life experiences including previous professions and parenting) influence their initial beliefs. The *PastRealWorld* represents the starting point of our students' journey and is the foundation upon which beliefs about classroom motivation develop.

The *ITEWorld* is essentially the world of students' initial teacher education (ITE) at university. This is the world of knowledge about teaching pedagogies, curriculum, philosophies, context of schooling and educational psychology. *ITEWorld* emphasises constructivist approaches to teaching and learning. In terms of learning about classroom motivation the ITE curriculum focuses on individual and contextual influences on motivation and a range of theoretical approaches to understanding motivation. This world provides learning opportunities to ensure students develop conceptual understandings to underpin their teaching and learning practices.

The *FieldWorld* is where students experience a range of real teaching and learning environments as observers and participants. *FieldWorld* experiences provide the opportunity to enact learning from *ITEWorld* while receiving guidance and feedback. Preservice teachers are strongly encouraged to be reflective (an emphasis in *ITEWorld*) about their own practice and observed practices.

The *ProjectedRealWorld* is the anticipated world of teaching post university teacher education. This world is expected to be informed by positive and negative experiences in the *PastRealWorld*, *ITEWorld* and *FieldWorld*. The *ProjectedRealWorld* provides direction for the journey, in the sense of ensuring the learning in *ITE* and *Field Worlds* prepares students for the *ProjectedRealWorld*.

### 2.2 *Cognitions within worlds*

The *PastRealWorld*, *ITEWorld* and *FieldWorld* are all expected to activate preservice teachers' cognitions about classroom motivation, which will lead to their *anticipated future practices of classroom motivation* in the *ProjectedRealWorld*.

To date, the significance of *initial beliefs about classroom motivation* generated from experience in the *PastRealWorld* has received little research attention (Nolen, Ward, Horn, Campbell, & Mahna, 2007; Turner, Christensen, & Meyer, 2009). On the basis of extensive research on the influence of teacher beliefs on their instructional practices, it can be speculated that preservice teachers' beliefs based on their prior experience as learners would have a significant impact on how they embrace new learning in their teacher education course.

In regard to preservice teacher education, the ITEWorld and FieldWorld are aimed at the development of different types of cognitions. The ITEWorld or formal university environment is expected to lead to the development of conceptual *knowledge about classroom motivation*, while the FieldWorld is aimed to immerse preservice teachers into *enacted practices of classroom motivation* and ultimately practical understandings of classroom motivation.

### 2.3 Cognitive processes at the interface of the worlds

Journeying through the different worlds activates at least two types of cognitive processes. The idea of a '*filtering effect*' from the PastRealWorld to the ITEWorld and FieldWorld is mentioned in some literature (Kagan, 1992; Kennedy, 1997, cited in Raths and McAninch, 2003, p. vii) to describe how prior beliefs influence learning processes. For example, personal beliefs that classroom motivation is related to relationships with teachers (based on personal experiences as a student) may influence how preservice teachers interpret and accommodate learning at university and in their own teaching practice during the year.

Navigating the different worlds is also expected to generate *perceptions of alignment and/or conflict between the worlds* in terms of ideas about classroom motivation. It is reasonable to expect that discrepancies may emerge between prior beliefs from PastRealWorld, conceptual knowledge imparted through ITEWorld and informal understandings about classroom motivation, through enacted practices and observations in the FieldWorld.

This conceptual framework of preservice teachers' developing beliefs about classroom motivation of provided the grounding for the following research questions:

- How do prior beliefs about classroom motivation from the PastRealWorld influence development of beliefs during a one year graduate entry teacher education programme?
- How are beliefs formed, developed and negotiated through students' experiences of, ITEWorld, FieldWorld and views of the ProjectedRealWorld?

## 3. Method

### 3.1 Participants

Eight student teachers (six female, two male) enrolled in a teacher education programme at an Australian university participated in this study. The students were completing a 10 month-long, post-graduate course of study to become qualified primary (six students) or secondary (two students) school teachers. Participants were all studying full time and volunteered to participate in the study. The call for a small group of volunteers was made in class. Ages of participants ranged from 23-40. Pseudonyms are used in this paper.

The teacher education programme in which the participants were enrolled provides a 10 month teacher education diploma for students who have completed an undergraduate (3 or 4 year) degree. It offers students professional preparation for teaching in schools or for other careers with an education focus. Within this programme, students complete units in educational psychology, assessment of learning, context of schooling, curriculum units and four professional practice units (school based teaching). With regard classroom motivation, the students had three lectures focused on motivation in their educational psychology unit.



One of the researchers was involved in this unit, however was not involved in assessment of participants' work.

### *3.2 Procedure and instruments*

Six pieces of data were collected throughout the ten month period in order to capture students' journey of learning about classroom motivation, as it related to their PastRealWorld, ITEWorld, FieldWorld and ProjectedRealWorld. Data consisted of students': Initial thoughts about classroom motivation (1<sup>st</sup> month); early statement of personal philosophy of teaching (3<sup>rd</sup> month); elicited reflections on issues related to classroom motivation at mid-programme (5<sup>th</sup> month); brief account of specific issues related to classroom motivation in their practice class (8<sup>th</sup> month), delivery of one lesson in their practice class and elicited reflections on specific motivation issues emerging from the observed lesson (8<sup>th</sup> month); elicited reflections on issues related to classroom motivation at the end of the programme (10<sup>th</sup> month).

#### *3.2.1 Initial thoughts about classroom motivation (1<sup>st</sup> month, extract of learning journal)*

During their intensive two-week introductory unit on teaching (ITEWorld), students kept a mandatory learning journal, which included the topic of classroom motivation (on average 1-3 pages). This entry contained students' ideas about what motivates individuals to learn and initial thoughts about classroom motivation, based on past experiences as a student (PastRealWorld).

#### *3.2.2 Early statement of personal philosophy of teaching (3<sup>rd</sup> month, written assignment)*

One of students' first written assignments involved a statement of their personal philosophy of teaching. Given this assignment came early in the course, students' reflections relied heavily on their past experience (PastRealWorld) with occasional references to the literature (ITEWorld). Several statements contained unsolicited references to motivation.

#### *3.2.3 Elicited reflections on issues related to classroom motivation at mid-programme (interview, 5<sup>th</sup> month)*

In-depth interviews were conducted mid-programme when students had completed four months of ITEWorld and had experienced four weeks of FieldWorld. The questions explored students' current views about motivating students in classrooms (including role of the teacher, strategies and challenges) and self-perceptions of change in beliefs. For example, students were asked questions such as: 'Having completed the first semester of your teacher education course, what are your current views about how to motivate students in classrooms? Why?'; 'What do you see as the major challenges when it comes to motivating students?' and 'Do you think your views about classroom motivation have changed since you started the teacher education programme? In what ways?' Students were also asked to recall how their current ideas about classroom motivation had been influenced by particular events, experiences, discussions and readings (from ITEWorld and FieldWorld) during the semester. For example, 'Can you recall particular events, experiences, discussions, readings, etc. that happened during the semester that may have influenced your current ideas about classroom motivation? Please explain what happened and why this had an important influence on your current views.' Finally, students were asked to briefly answer the same questions about classroom motivation they responded to in their initial learning journal (1<sup>st</sup> month). It was stressed that the interest was on current ideas so they should not try recalling what they had written previously.

### *3.2.4 Brief account of specific issues related to classroom motivation in their practice class (email, 8<sup>th</sup> month)*

Before observing the delivery of one lesson in their first extended practice class (FieldWorld), students were invited to provide some brief background information about their class, more specifically their general impression about motivation in that classroom and perceived motivational challenges for their students, if any. The purpose was to elicit students' reflections on classroom motivation as it related to an actual situation.

### *3.2.5 Delivery of one lesson in practice class and elicited reflections on specific issues related to classroom motivation (observations, 8<sup>th</sup> month)*

To complement the self-report data about classroom motivation, the delivery of one lesson, chosen by the student, was observed by one of the researchers. The purpose of the observation was to provide stimulus material for a subsequent discussion about classroom motivation in the FieldWorld. An in-depth interview was conducted immediately after the observed lesson to elicit students' reflections on motivation as it related to the observed lesson. Students were asked to reflect on the lesson with particular regard to motivational successes and challenges and how their approach had been informed (from ITE and/or FieldWorld) and would be informed in the future. Specific questions included: 'Did you have any particular intentions concerning student motivation in this lesson?'; 'What do you think motivates these students to learn?'; 'Have your views about classroom motivation changed since you started teaching in this class?'

### *3.2.6 Elicited reflections on issues related to classroom motivation at the end of the programme (email, 10<sup>th</sup> month)*

Prior to completion of their teacher education programme, that is, after ten months of ITEWorld in which was embedded 12 weeks of FieldWorld (in 4 separate supervised placements), students were asked to answer some final questions via email. The overall purpose was to give students an opportunity to describe two 'big ideas' or fundamental principles they currently had about classroom motivation and explain why these ideas were important, how each idea had developed (possible link to ITEWorld and FieldWorld) and what it meant for their future teaching (ProjectedRealWorld). Finally, students were asked whether their ideas about classroom motivation had changed in any ways throughout the year, and if so, describe the key factors contributing to the change (possible references to PastRealWorld, ITEWorld or FieldWorld). The specific questions students were asked to respond to include:

- Please think of two 'big ideas' you currently have about classroom motivation. What are these? (By 'big idea', we mean fundamental principles. Remember that different people have different big ideas!!! We are interested in YOUR big ideas.)
- Why are these ideas important to you?
- How have these ideas developed? (i.e. from your own personal / uni / school / or other experiences?)
- What do these ideas mean for YOUR future teaching? (What strategies linked to these ideas do you intend using in the future?)
- Do you think your ideas about classroom motivation have changed in any ways this year? If so, how? What key factors have contributed to the change?

## 4. Analysis

The data analysis process was informed by the conceptual framework and therefore focused on the four Worlds and how they influenced students' development of beliefs about classroom motivation. The data were analysed by two researchers who developed the conceptual framework and shared expertise in the field of motivation, but whom approached the data from different perspectives. One researcher had academic experience in the field of teacher education, and the other had extensive experience in the field of educational psychology. The data analysis occurred in 3 phases.

### 4.1 Phase 1

The first phase of analysis involved development of in-depth case studies of each participant (see Appendix A for an abbreviated sample version of the matrix for a single case). Using a chronological approach, and summarising the data relevant to each research question, two researchers independently created a time-ordered matrix (Miles & Huberman, 1994) for each case. In this matrix the rows reflected the various points of data collection (e.g. journal entry, interview, email, etc) and columns included key themes and ideas emerging for each case. Specifically, this included students' beliefs about classroom motivation at each data collection point, students' accounts of the origin of these beliefs (with particular regard to the four Worlds), students' own accounts of and reasons for change, and perceptions of influence of the Worlds on current beliefs and perceptions. A column was also included to record filtering effects and conflicts or alignment of ideas between Worlds. After working independently, the researchers had open discussions about the development of each matrix and came to agreement about the final version of each.

### 4.2 Phase 2

After examining each of the cases individually, a cross case data matrix was developed to identify patterns across the cases. This matrix showed individual cases (rows), beliefs emerging from each of the four Worlds (Figure 1) and conflicts and/or alignment of beliefs between Worlds. Once similarities between cases were identified, rows were arranged to group cases sharing similar characteristics (for example, similar beliefs emerging from the PastRealWorld). From this process, two distinct trajectories were identified (shown in Figures 2 and 3 in the results section). The first trajectory represented cases where there had been gradual emerging understandings about classroom motivation, and the second trajectory represented cases where the journey had reinforced and consolidated initial beliefs about classroom motivation.

During the development of these trajectories, both researchers had comprehensive discussions about how the trajectories could best represent the variety of experiences described across the cases. Final agreement was reached about which cases were reflected in each trajectory based on two key criteria: participants' perceived development of beliefs about classroom motivation and the degree of filtering occurring from the PastRealWorld.

### 4.3 Phase 3

The final phase of data analysis involved using data shown in both the individual case time-ordered matrices and the cross case data matrix to answer the research questions.

*How do prior beliefs about classroom motivation from the PastRealWorld influence changes in beliefs during a one year graduate entry teacher education programme?*

To answer this question, data from the time-ordered matrices of individual cases each trajectory represented were analysed with specific attention to data illustrating beliefs of classroom motivation from the PastRealWorld and students' perceptions of whether their views had changed. This occurred at various points in time, for instance in the mid-year interview when students were asked "What are your current views about how to motivate students in classrooms? Why?" and responses to the same question asked at two different time points. For example in the mid-year interview and final email students were asked "Do you think your views about classroom motivation have changed since you started the teacher education programme? If so, in what ways?". A similar question was asked during the FieldWorld interview - "Have your views about classroom motivation changed since you started teaching in this class? If so, how?"

*How are beliefs formed, developed and negotiated through students' experiences of, ITEWorld, FieldWorld and views of the ProjectedRealWorld?*

To understand how beliefs were formed, developed and negotiated across ITE and FieldWorlds, data from the cross-case data matrix was used to identify changes in beliefs across Worlds. Original data sources (transcripts) were used to illustrate particular points. For example, answers to the question "Can you recall particular events, experiences, discussions, readings, etc. that happened during the semester that may have influenced your current ideas about classroom motivation?" (Mid year interview) helped unveil developments occurring and the sources of these developments.

## **5. Results**

Four key themes influencing participants' development of understandings about classroom motivation emerged from the data. These included the filtering role of prior beliefs about classroom motivation, the dynamics of alignment or conflict between belief and experiences, the significance of self-motivating factors and the power of emotion.

### *5.1 The filtering role of prior beliefs*

Participants' prior beliefs about classroom motivation had a filtering effect on their learning about classroom motivation through the teacher education journey. On entering the programme, some students reported having no particular ideas about classroom motivation, which produced a weak filter, enabling them to be receptive to learning and open to developing new understandings about classroom motivation. In contrast, other students reported having quite fixed ideas, which produced a strong filter which limited their learning throughout the journey.

#### *5.1.1 Weak filtering role of prior beliefs*

Five students described having thought little about classroom motivation prior to beginning teacher education.

*"I don't think I gave much thought to motivation before ... I thought that it was something that either you have or you don't ... I recognised that people 'lost' motivation, but I thought that it was more a feature of personality or disposition ... I think that motivation is one of those things that as an adult if you haven't thought*

*about it in a teaching context, the only other experience that you've had with it is in a self help book" (Naomi, final email).*

*"I think I was very ignorant coming in ... I was worried at the start about how I would be able to motivate children ... At the start of the year, many of my ideas about motivation were subconscious, or unformed" (Elaine, mid-year interview).*

Students also described initial beliefs of classroom motivation that relied exclusively on teachers providing interesting, engaging and fun lessons.

*"I previously thought that student motivation depended solely on the teacher being energetic and 'fun'" (Hillary, mid-year interview).*

*"In the beginning I sort of thought ... make it fun and interesting and that's the main way to motivate students" (Denise, mid-year interview).*

Having relatively 'unformed' or vague ideas about classroom motivation provided an opportunity for growth and students reported changes and development in beliefs during the year. For example, rather than viewing motivation as a fixed personality trait, as she had done previously, Naomi had developed new understandings about motivation being dynamic and influenced by instruction, context and social interactions.

*"Learning that all students can be on a motivation continuum has been important to me ... it helped me avoid labelling students and empowered me to feel able to assist students who may appear lacking in motivation" (Naomi, final email).*

In addition, these new understandings were firmly anchored in previous professional knowledge.

*"I think that motivation for students still comes back to their needs being met... one thing I was happy to bring from nursing to teaching was my friend Maslow ... my good friend Maslow and the hierarchy of needs" (Naomi, mid-year interview).*

So previous beliefs were not discounted but used as a foundation upon which to develop a more coherent belief system.

Students also explained how views about classroom motivation had broadened beyond instructional strategies to include emotional and social dimensions of classroom life.

*"I've just got a much bigger understanding, so I guess now it's not just fun and interesting things ... I prefer to intrinsically motivate them and sort of get to know them and build relationships with them" (Denise, mid-year interview).*

For students describing initial beliefs as being 'unformed', the weak filtering role of such beliefs increased their receptiveness to developing deeper and complex understandings about classroom motivation. Furthermore, the students spoke about their learning as a continual developmental process with frequent references to their past experiences to make sense of new understandings. Consequently these students unanimously responded "yes" when asked if their views about classroom motivation had changed during the year. While initial ideas were still evident in their comments, however, learning experiences over the year had enhanced understandings about motivation in the broader classroom context, including social and emotional dimensions of classroom life. In sum, emergent beliefs of classroom motivation from the PastRealWorld provided a weak filtering effect enabling gradual

understandings to develop, with final beliefs emerging as a culmination of learning and experiences.

### 5.1.2 Strong filtering role of prior beliefs

Three students described clear, deeply entrenched ideas about motivation prior to beginning teacher education. For these students, however, having strong prior beliefs about classroom motivation seemed to limit development of further understandings, resulting in little change in beliefs of classroom motivation during the year.

Throughout the year, Jessica consistently held the view that learning should build on prior knowledge to “*motivate the student by demonstrating the validity and relevance of his/her prior knowledge... and further self-motivation*” (philosophy), and that motivation is enhanced through interest.

*“Although we’ve been taught some specific strategies or techniques, I think when I get into the classroom I still tend to think more or less the way I always have done, that fundamentally it’s about getting people interested”* (Jessica, final email).

In her final email, Jessica continued to explain how her past teaching experiences had been a critical influence in development of beliefs of classroom motivation.

*“The reason why I apparently had the right hunch about teaching has to do partly with my own extensive experience as a self-motivated home learner ... and with my prior experience as a visiting (subject) lecturer at (city) primary and secondary schools ... I keep coming back to my two key ideas that making use of what students already know and find relevant (authenticity) and are interested in and enjoy (fun, self-motivation) are the factors that will maximise their engagement with lessons”* (Jessica, final email).

In this instance, prior teaching experiences, understandings about her own motivation and the belief that she had the right ideas about teaching, resulted in a journey that consolidated, rather than developed initial beliefs. Similarly, other students expressed views that appeared resistant to change during the year.

*“I knew that, for example, people’s social, cultural, family values would affect their motivation ... I knew cultural background, inclusion, the emotional stuff, that’s all stuff that I’ve brought with me, probably just not worded in the same way ... I haven’t had any sort of major epiphanies of insight ... I’ve always seen it as being a crucial thing”* (Clive, mid-year interview).

For Clive, initial beliefs of classroom motivation focusing on the social and cultural dimensions of classroom life were consistent throughout the teacher education journey, which “*provided me with the concepts, language and theory to articulate it*” (final email).

Likewise, the initial views of Paul that learning should “*include life and interpersonal skills such as emotional understanding, relationships, goal setting*” (philosophy) and that motivation was essentially about developing relationships with students, were maintained throughout the year.

*“For me, it’s more how you develop relationships with the kids ... kids need to have fun, kids need to be engaged a bit more personally ... if you can get a good rapport going with them, I think you have a better chance”* (mid-year interview).

He continued to explain how these views were formed and why they were so strong.

*“I think as an older guy, I think (my views about classroom motivation), they’re developed ... my mind’s been made up for quite a while ... I just think, in the end, if you sift through everything else, it’s about relationships ... doesn’t matter who says what about theories or whatever ... in the end it’s about how you actually interact with people on a daily basis”* (mid-year interview).

In the final email, Paul described his beliefs of classroom motivation as being *“reinforced and consolidated”* during the year.

The strong filtering effect provided by fixed prior beliefs about classroom motivation appeared to inhibit further development and understandings through the teacher education journey. Interestingly, students consistently reported understandings about classroom motivation that reflected their initial beliefs. Students’ accounts of their journey through the ITE and FieldWorlds, revealed their initial ideas had been, in most cases legitimised and consolidated throughout the year.

*“My ideas have been reinforced and consolidated this year by observing and listening to teachers, students, student teachers and parents ... students become demotivated when they have no power or say in daily classroom activities ... school life becomes a repetitive choice between monotony and boredom”* (Paul, final email).

Particularly interesting was Jessica’s comment that to enhance the motivation of her students in classrooms, she would aim to demonstrate *“the validity and relevance of his/her prior knowledge”* (philosophy) when, essentially she used this approach with her learning throughout the course, i.e. seeking knowledge about classroom motivation that would confirm her prior beliefs.

In sum, the strength of the filtering effect for these students therefore, prevented them from interrogating and going beyond their initial beliefs about classroom motivation, brought from the PastRealWorld.

While the eight students expressed a range of beliefs about classroom motivation, the role these beliefs played was to produce a filtering effect which influenced the extent to which students either developed new understandings about classroom motivation, or consolidated their prior beliefs. Participants who had embryonic understandings appeared to be much more receptive to developing new ideas and beliefs, whereas students with strong prior beliefs displayed a limited disposition to question their assumptions and embrace new learning.

## *5.2 Dynamics of alignment or conflict between belief and experiences*

Students experienced alignment and sometimes conflict between their own beliefs of classroom motivation and those enacted or promoted in the Worlds. Where alignment existed, participants experienced a process of gradual learning and understanding. Where there was conflict participants’ ability to successfully resolve the conflicts was critical to their learning journey.

Alignment in the majority of ideas between ITE and FieldWorld was described by most students. For example, Elaine explained ideas about classroom motivation in both worlds were “*quite complementary actually ... I found that some things are repeated*” (mid-year interview). Similarly, Hillary reported a common focus on student centred approaches to motivation enabled her to understand “*the primary way to engage students is to develop/facilitate learning experiences that centre on the students (rather than the teacher)*” (mid-year interview). Final understandings the students reached therefore, were a consequence of alignment between their own ideas, ideas of others (university lecturers and mentor teachers) and learning experiences.

Some students were able to successfully resolve conflicts in beliefs about classroom motivation. For example, Naomi experienced conflict in an early FieldWorld experience when her mentor teacher displayed a “negative” approach to motivation and used threats, negative comments and punishments. Naomi’s way of handling the situation was to adopt a “fresh start” where she explained to students that things would be a little different when she was teaching. The conflict she experienced between her own beliefs of motivation and those displayed by her mentor teacher was successfully managed in this way. Ultimately, the experience of conflict provided a valuable learning experience about the impact of particular teaching approaches on student motivation.

Similarly, Clive described a conflict between his personal ideas and those he had the opportunity to enact in the classroom as a student teacher. Like Naomi, he managed to reconcile the conflict through isolating the purpose of FieldWorld, which was to gain a teaching qualification, and to work “with” a professional so as to achieve a careful balance between his ideas, and the routines and classroom culture created by a highly experienced teacher. “*I would like the opportunity to try and explore alternative teaching methods to see if this would work, but will have to wait till next year to fully test that one*” (email before observation). It seemed that his ability to negotiate the boundaries between the Worlds was critical to resolving conflicts and benefitting from the learning opportunities provided.

In contrast, a small number of students experienced conflicts that could not be resolved. For example, Paul was unable to successfully resolve conflicts between his beliefs and those held by his mentor teacher in the final FieldWorld experience.

*“I see the struggle some children are having with motivation, focus and the monotony of it all. Some of the students still behave like with disinterest and disengagement. I have been trying to include a few variations to the norm but don't feel I have the right or the experience to experiment. I observe and still struggle with the relevance and effectiveness of certain practises in the classroom. Do they really learn?????”* (email before observation).

Unlike other participants, he found these challenges difficult to negotiate and became increasingly frustrated that FieldWorld experiences did not allow the opportunity to ‘try out’ ideas, instead requiring him to utilise existing classroom procedures, such as reward systems to ‘motivate’ students.

*“It's a procedural thing that I go through ... it's not my procedure so I don't really claim it or own it ... they know it's their system but I'm just somebody stepping in and performing it when needed ... I'm just the trainee teacher... you don't want to upset the applecart too much ... just save it for another day”* (interview after observation).



His inability to change the situation only sought to strengthen the vision of the ProjectedRealWorld, where strategies and procedures that, in his view demotivated students, would not be used.

*“And again, when I have my own class, instead of an hour and twenty minutes for maths, we’re going to do three lots of ... three lots of thirty ... with breaks in between ... I understand their pain – I’ve been there done that and now I’m trying to force it on them in a way”* (interview after observation).

Furthermore, Paul also experienced conflict between his own ideas from the PastRealWorld and his experiences in ITEWorld.

*“University is telling us to be engaging, hands on and constructive and yet we have to sit in lectures ... it’s more chalk and talk ... I’m finding it difficult ... what they’re saying is not what they’re doing”* (mid-year interview).

Other students also experienced conflicts between ITE and FieldWorld, however, were able to view these as part of the reality in working in a real situation.

*“The big discrepancy is simply the fact that we’re encouraged to think creatively ... But when you actually get out to the classroom there may not be the resources to do it”* (Jessica, mid-year interview).

In summary, the majority of participants reported much alignment in ideas endorsed and promoted in ITEWorld and FieldWorld and although conflicts were experienced, for the most part, participants were able to successfully resolve these. Where there was additional alignment with the PastRealWorld, participants experienced a journey of gradually building and developing understandings about classroom motivation, where there were complementary theoretical understandings and opportunities to enact these in a real classroom. Where students experienced conflicts between beliefs formed in the PastRealWorld, and experiences in ITEWorld and/or FieldWorld, being able to manage these and negotiate a workable situation seemed critical, and indeed, such conflicts provided valuable learning opportunities. In these cases the ProjectedRealWorld emerged either as one where developed understandings from the teacher education journey would be enacted, or where ideas from the PastRealWorld would finally come to fruition. In the one instance where conflict was not resolved adequately, the ProjectedRealWorld seemed to become even more of an idyllic vision.

### *5.3 Significance of self-motivating factors*

A recurring theme in some participants’ initial responses to questions about classroom motivation was the significance of self-motivating factors. While students described factors influencing their own motivation, such as fun and interesting lessons, some students developed a view of classroom motivation that moved beyond their own motivational preferences. They acknowledged that *“everyone has their own triggers for motivation”* (Elaine, final email) and that understanding what motivates the students in their classroom was critical to success. A few students, however, remained fixed in the belief that their students would be motivated by the same factors they found motivating.

The students who had strong prior beliefs about classroom motivation made frequent connections between their own motivation and factors they believed motivated others. For example Jessica reported always being motivated by interest and accordingly, her lessons attempted to foster students’ interest as a key aspect of motivation.

*“The learning I really enjoyed as a child and teenager was mostly my own self-supervised learning at home ... the key to my self-motivation as a learner has been the power to choose subjects of interest and relevance to me. Therefore, as a teacher I try to make my lessons relevant/authentic and fun for my students”* (final email).

Likewise Clive and Paul described the importance of relationships and the social, emotional context of the classroom as motivators, based on their own less positive experiences at school. Clive described his struggle to ‘fit in’ at school and consequently his failure to engage in academic tasks, despite being academically able.

*“My struggle to ‘play the game’. I asked too many questions and always wanted to modify activities and tasks to suit me. I resisted the control of teachers and school over me ... I had a lot to say and school never gave me the avenues to express myself”* (mid-year interview).

Likewise, Paul described his school experiences and mostly boring, repetitive and disengaging.

*“My experience at school was one of having all this energy and sporting talent that was in no way encouraged or developed”* (mid-year interview).

As a consequence, both Clive and Paul wished to avoid replicating their own experiences and instead wanted to create motivating learning environments through developing positive relationships, encouraging student autonomy and enabling students to feel *“empowered and in control of their life and learning”* (Clive, philosophy). During classroom observation, Clive played his guitar for students and had them whistle along at the end of the day and Paul took the students for physical activity when their maths lesson was complete. These participants endeavoured to create an environment and lessons that they themselves would have found to enhance motivation.

While it is reasonable that students begin their teacher education journey with understandings that emerge from their own classroom experiences as learners, it is worth noting that three of the eight participants did not shift from these original ideas. It could be argued that perhaps initial ideas were well formed and participants had no reason to see a need for change, however, it was evident from the researchers’ perspectives that there had perhaps been some missed learning opportunities and that with a more rigorous and well considered exploration and critique of their own initial beliefs and experiences, maybe through induced metacognitive reflections, students may have had a more enabling learning journey with regard to classroom motivation.

#### *5.4 Power of emotions*

Most students expressed both positive and negative emotions about their own experiences of schooling, and the successes and challenges that are inevitable when learning to teach. While the majority reported positive schooling experiences of their own and described how they aspired to emulate teachers they knew, some reported strong negative experiences (as described above) and the explicit desire to avoid particular teaching and learning practices - *“and I swore to myself I would never be like that”* (Louise, mid year interview). Emotional experiences appeared significant in the formation of beliefs about classroom motivation.

The majority of students shared recollections of their own school experiences, and the experiences they had in FieldWorld, that were rich with positive emotion for teaching. Such

emotions included passion, joy, feelings of success and happiness. For Jessica, the energy, passion and enthusiasm she communicated to students was appeared to be a reflection of her genuine love for her area of expertise (archaeology). This in turn created positive emotions when students responded positive to the way she harnessed their interest in related topics. Other students spoke of the fun and enjoyment of being in the classroom. For example, Elaine described how she had unexpected fun with her students.

*“I was surprised how excited they got. (laughter) Actually, I thought ‘oh, this could be a really dud lesson’, but it was so good and it was really fun!”* (mid year interview).

Where students expressed positive emotion about teaching this seemed to reinforce ideas about successful teaching practice and contribute to consolidation of beliefs.

On the other hand, where participants held negative emotions related to their own schooling experiences, becoming a teacher seemed to have much more emotional investment which had a compounding effect on the expected highs and lows of the journey.

For example, Clive reported being “*offended*” when told he was pitching his lessons at a level too high for the students.

*“And to be honest too, the first time (my teacher) mentioned it to me internally I felt a bit offended when she said in some ways you’re probably better suited to upper primary and I took that to heart because I want to be a good teacher at any age level”* (interview after observation).

Nevertheless, he was able to recognise that he needed to get “*out of being 40 and (start) thinking more like an 8 year old... I realised I’m making an assumption about the connections they’re going to make*” (interview after observation). Although his emotional response to the mentor teacher’s comment took a few days to work through, Clive was able to resolve the issue and move forward in a positive and productive manner.

A different outcome, however, was evident for Paul who experienced much frustration in his final FieldWorld placement, describing his intention as “*survival for me*”. The challenges experienced and the struggle to reconcile conflicting ideas lead him question his career path. His experience fell into “*good days and bad days*” which he was trying to accept “*so you don’t take it to heart so much*” (interview after observation). The culmination of emotions of frustration, feelings of helplessness and lack of success threatened his vision of his identity as a teacher and also compromised his ability to successfully resolve the challenges of the situation. Furthermore, the negative emotions expressed served only to reinforce his prior beliefs about classroom motivation.

### *5.5 Journeys through the Worlds*

During the year students expressed a range of beliefs about classroom motivation from the PastRealWorld. Some had vague ideas about classroom motivation (resulting from their own schooling experiences) prior to beginning their teacher education course whereas others began the year with strong, entrenched ideas, grounded in their own life experiences and recollections from their own schooling. These prior beliefs about classroom motivation produced a filtering effect (weak to strong) which encouraged students’ to be receptive to learning or seemed to limit their disposition to learning. Those who were receptive to learning were adamant their understandings had definitely developed as they journeyed through ITEWorld and FieldWorld, whereas those of a limited disposition described no

significant change in understandings, only consolidation of prior beliefs. For some students, experiences between the Worlds were mostly aligned and for others there were conflicts that were successfully or unsuccessfully resolved. Furthermore, the influence of prior beliefs, filtering effect and experiences of alignment and conflict, resulted in a ProjectedRealWorld that was either a place where continued learning would occur, or a place where initial beliefs would be applied. From these findings two main paths, or trajectories, that represent participants' journeys of developing beliefs about classroom motivation through teacher education emerged.

The first trajectory (Figure 2) represents the journey of five students having little prior knowledge of classroom motivation and who reported gradually developing understandings throughout the year. These understandings were developed through experiences in ITEWorld and FieldWorld that were mostly aligned, and where conflict was successfully resolved. Given these students' initial vague beliefs about classroom motivation at the beginning of their programme, there was a weak filtering effect from the PastRealWorld through to the other worlds, which positively facilitated students' development of understandings. Their visions of themselves as teachers in the ProjectedRealWorld were a result of understandings and experiences developed throughout the year.

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FIGURE 2 ABOUT HERE

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The second trajectory (Figure 3) represents the journey of students who had deeply entrenched initial beliefs and seemed to experience little change in beliefs during the year. Beliefs from the PastRealWorld had a dominating influence on both understandings developed in ITEWorld and experiences in FieldWorld. The strength of prior beliefs resulted in a strong filtering effect which may have inhibited questioning of own beliefs and thus further understandings being developed. Instead, these students reported understandings that reflected their own initial beliefs and an early sense of readiness for the ProjectedRealWorld which was strongly representative of initial beliefs.

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FIGURE 3 ABOUT HERE

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## **6. Discussion**

The findings from this study make a number of original contributions to the existing literature on preservice teachers' developing beliefs, with specific regard to classroom motivation. The conceptual framework to analyse the journeys over the duration of the teacher education course, provided a useful conceptual tool to build on existing literature concerning preservice teacher beliefs (Joram & Gabriele, 1998; Richardson, 2003) and identify the origin and role of initial beliefs in enabling learning about motivation. The four contexts, or Worlds

(Davidson & Phelan, 1999; Horn, Nolen, Ward, & Campbell, 2008)(PastRealWorld, ITEWorld, FieldWorld and ProjectedRealWorld) described were shown to each play a significant role in this development, sometimes by facilitating change and sometimes by reinforcing and consolidating existing ideas. The identification of two distinct trajectories, the first showing gradual emerging understandings about classroom motivation and the second showing reinforcement/consolidation of existing views of classroom motivation highlights the importance of initial beliefs in framing preservice teachers' learning in a way that leads to gradual enlightenment or alternatively impedes further development. This suggests that preservice teachers' beliefs about classroom motivation are not simply a consequence of learning new knowledge, but are the result of a gradual and dynamic process of learning and negotiating understandings at university and in classrooms, while reconciling these with past experiences and developing professional identity in the anticipated future.

The findings also stress the critical role played by prior understandings and beliefs held on entering teacher training in influencing development of new understandings, or reinforcing existing beliefs. There was evidence that extensive past experience in parenting, teaching, or coaching lead to entering beliefs about classroom motivation that tended to be stronger, or deeply entrenched (Ashton & Gregoire-Gill, 2003; Chinn & Brewer, 1993) and more resistant to change, in comparison to those of preservice teachers who had emerging, or vague and fragmented (Winitzky & Kauchak, 1997) understandings which could be developed into a more coherent belief system. Of significance is the finding that difficulties in developing understandings about classroom motivation emerged when beliefs from the PastRealWorld were dominant and firmly entrenched and either prevented development of further understandings, or could not be reconciled with experiences in ITEWorld and/or FieldWorld. Unresolved past issues, especially those evoking emotionally packed negative experiences appeared to exert an inhibiting influence on development of beliefs about classroom motivation.

The significance of emotional residues emerging from prior educational and personal experiences, especially when that experience was negative and left emotional scars, was highlighted. The literature on preservice teacher beliefs of teaching and learning points to the important role of prior perceptions and beliefs on further development during teacher education (Eilam & Poyas, 2009; Tillema, 1998), and there is emerging interest in the emotional dimensions of learning to teach and belief change (Ashton & Gregoire-Gill, 2003; Demetriou, Wilson, & Winterbottom, 2009; Hastings, 2004, 2009). Even so, little attention has been paid to the emotional dimensions of prior beliefs. Such beliefs are particularly pertinent to preservice teachers who already have extensive experience of classrooms and in this case, understandings about their own motivation. As revealed in the present study, strong negative emotions experienced in past experiences of learning play a critical role in student teachers' journey of learning about classroom motivation, whereas positive residues do not seem to create such a strong filtering effect, but rather tend to consolidate and reinforce existing beliefs. Understanding how emotional residues from past learning experience influence preservice teachers' beliefs about teaching, learning and motivation is an important issue for further research.

From a conceptual angle, the notion of "filters" (Bullough, 1991; Kagan, 1992; Nolen et al., 2009; Raths & McAninch, 2003) appears useful to represent the mechanism by which current beliefs and understandings influence change (or lack of) in beliefs about classroom motivation. What this study contributes, however, is an examination of the strength of the filtering effect, suggesting filters can either act as an enabling or limiting mechanism for future learning. In this study, there was evidence that a strong filtering effect may potentially

prevent new or conflicting ideas being negotiated and assimilated into existing beliefs, while a weak filtering effect may enable accommodation of new ideas so as to foster development of more complex beliefs. The conditions under which filters gain strength and the extent to which personal characteristics play a role will need to be investigated.

From a methodological perspective, this study benefited from the adoption of a longitudinal approach. This made it possible to elicit reflections on learning about classroom motivation that were triggered by unfolding events. Also highly useful was the combination of decontextualised and contextualised reflections (in both ITE and FieldWorlds), when for example participants were asked the same questions in both worlds, and when data were triangulated through use of matched questions asked at different points in time. These matching questions were particularly useful to unveil emerging changes (as in trajectory 1) and explaining why change had not occurred (as in trajectory 2). Finally the use of individual time-ordered matrices followed by a cross-case analysis approach enabled the identification of two trajectories that capture two possible journeys of developing beliefs about classroom motivation through a one year teacher education programme.

## **7. Conclusions**

The findings from this study stress the significance of teacher education programmes in enabling activation of and reflection on student teachers' entering beliefs about classroom motivation. This is viewed as critical to understand the origin of personal beliefs and to provide opportunities to integrate these with concepts from the literature. Indeed, Naomi noted in her final email that participating in the research and having additional opportunities to reflect on and discuss classroom motivation had influenced her development of understandings throughout the year. While formal reflective practice is a feature of many teacher education programmes, and indeed is of the programme in which the students in this study participated, it would seem however, that these practices were insufficient to enable students to come to terms with their own negative emotions so as to benefit fully from the learning opportunities teacher education provides.

One approach to facilitate this process may be to explicitly and collectively 'activate' (Vermunt & Verloop, 1999) preservice teachers' prior motivational experiences in learning contexts, with a view to identify and unpack such experiences, cognitively and emotionally. Furthermore, such an approach may require use of 'emotional arousal' (Ashton & Gregoire-Gill, 2003) as a tool to initiate change and to facilitate development of coherent, complex belief systems concerning classroom motivation. Such a metacognitive approach to learning about classroom motivation, where preservice teachers are encouraged to become aware of their own learning in this particular area, could be highly useful to address past experiences and secure future learning. In turn, this approach would provide opportunities to assist student teachers in reconciling conflicts and developing their own strong philosophy of teaching and learning and in turn, positive teacher identity. This would not only provide an experiential foundation upon which to build academic knowledge about classroom motivation but it may also prevent the emergence of strong negative filters, such as those observed in the present study.

The two main limitations of this study are the relatively small sample and exclusive reliance on self-reports for data collection. Even so, there are some important implications for future research. Firstly, further investigation is needed to explore the usefulness of the concept of filters, strong or weak, to understand student teachers' learning about classroom motivation. Secondly, this study raises the issue of the role played by emotional residues in student

teachers' learning about classroom motivation. As there is little literature concerning the role of emotion in this way, this is an area that would benefit from further research. Finally, to enable preservice teachers to more fully understand their entering beliefs and beliefs of classroom motivation, interventions focusing on metacognitive approaches to instruction in teacher education programmes, to activate prior beliefs so as to facilitate an effective learning journey are warranted.

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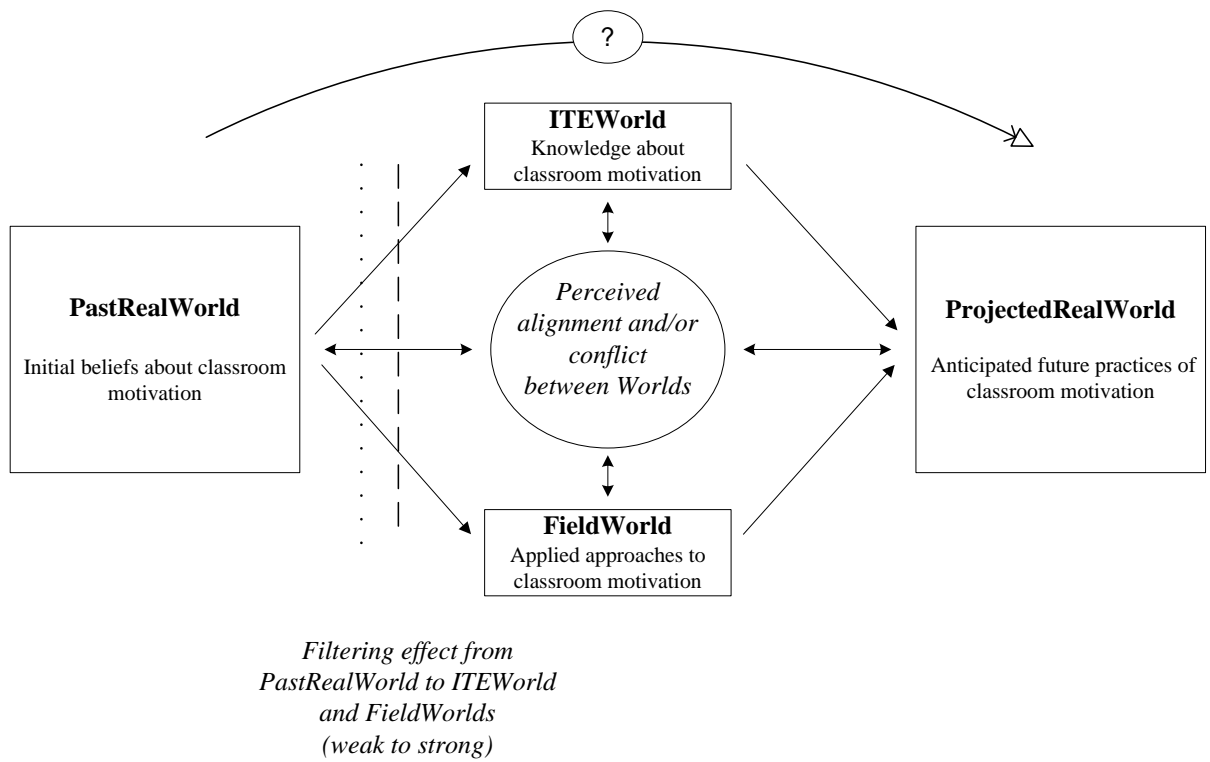
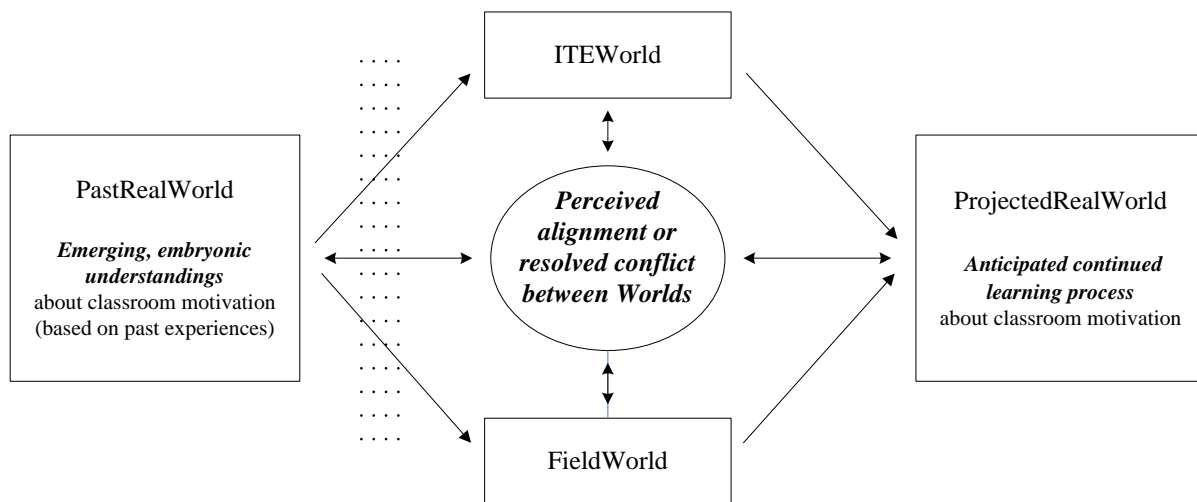


Figure 1. Developing beliefs about classroom motivation: A conceptual framework



*Weak filtering effect  
Receptive to learning*

Figure 2. Trajectory 1: Gradually developing beliefs about classroom motivation



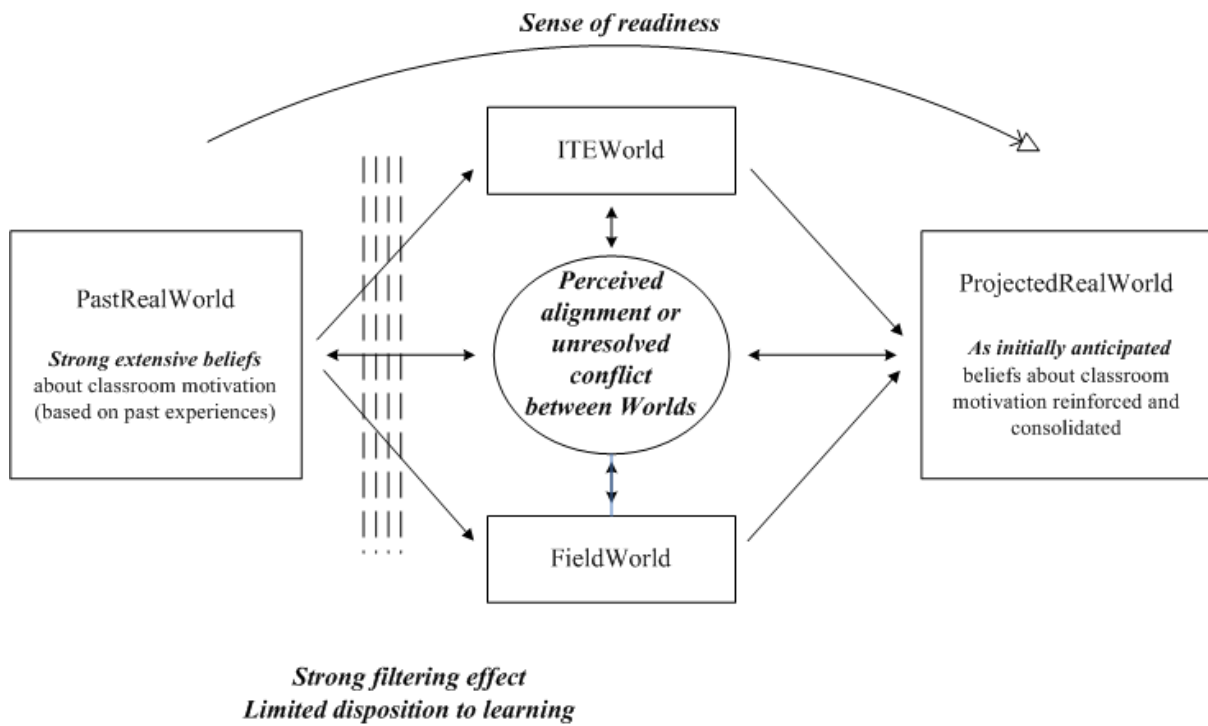


Figure 3. Trajectory 2: Consolidation of prior beliefs of classroom motivation

