

How can pre-service primary teachers' perspectives contribute to a pedagogy that problematises the 'practical' in teacher education?

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This study examined pre-service primary teachers' perspectives on teaching and learning experiences within college-based courses in 'practical' subject areas within a teacher education programme. Following three individual lectures (one each in art, music and physical education), pre-service teachers (n=11) participated in focus group interviews sharing their perspectives on the teaching and learning experiences. These data were analysed thematically and supported by teacher educators' (n=3) planning and reflection documentation. Although the problematic nature of the 'practical' suggests appeal and peril of the 'practical', the important nature of negotiating the 'practical' to enhance student learning is apparent. Students emphasised the value of practical engagement and expressed a strong preference for working in groups to create a safe learning environment to develop confidence and competence. These insights suggest key aspects of a pedagogy of teacher education in these 'practical' areas. The importance of being aware of and, in some cases, challenging student perspectives on how they learn best in these curricular areas is discussed.

Keywords: pedagogy of teacher education; pre-service teacher perspectives; practical learning engagement; teacher educator reflection; tacit knowledge

Introduction

Teacher education researchers highlight that the process of learning to teach is complex and multifaceted and that facilitating pre-service teacher learning does not lend itself to a linear model: the merits of various designs of experiences, content and approaches taken in teacher education programmes continue to be debated in teacher education circles (Cochran-Smith 2011; Cochran-Smith and Zeichner 2005; Zeichner and Conklin 2008; Zeichner 2010; Spalding et al. 2011). While there is much debate, there are also some areas of agreement around the preparation of teachers. In general, teacher education programmes around the world include common elements such as study of the foundation disciplines of teaching, study of the pedagogy and pedagogical content knowledge of each of the subject areas on the curriculum as well as teaching placement experiences in schools (Darling-Hammond and Bransford 2005). The importance of addressing attitudes and beliefs as well as opportunities to test learning in applied settings are highlighted in the teacher education literature (Tillema 2000). The relative weighting and the relationship between these elements within programme design is still a cause for much debate. Some programmes emphasise learning to teach as a practice-based enterprise and emphasise school contexts as a site for their pre-service teachers' learning. Other programmes stress foundation elements and place more emphasis on a knowledge base for teaching to support and inform engagements in school contexts.

Movements to shift teacher preparation from university/college-based courses to being primarily school-based, as in the USA and the UK, have placed an onus on teacher educators to defend their contribution to pre-service teacher learning in college-based courses. This has resulted in researchers paying increasing attention to articulating the 'how' of college-based teacher education currently. In this research, three subject areas – art, music and physical education – were grouped together as 'practical' subject areas. Although these subjects are 'practical', they are not merely 'practical' subjects. In conceptualising the 'practical', these

subject areas are approached as having socio-psychological ‘practical’ constituents, alongside the epistemological ‘practical’ subject content itself, as distinguished by Van Manen (1977). The study explored pre-service primary teachers’ perspectives on teaching and learning in college-based courses in these ‘practical’ subject areas within their teacher education programme. Their perspectives were considered alongside the teacher educators’ perspectives on the same learning encounter. While the problematic nature of the ‘practical’ often highlights the appeal as well as the peril of the ‘practical’, the potential of these perspectives to inform a general pedagogy of teacher education (Loughran 2006) as well as pedagogies specific in these ‘practical’ subject areas was considered.

A pedagogy of teacher education?

The multifaceted and complex nature of teacher learning makes unravelling of the processes of teaching in teacher education and the articulation of a set of definitive, explicit pedagogical practices challenging. This difficult task is compounded by lack of agreement around the theory/practice relationship in teacher learning and difficulties accommodating arguments around the tacit nature of teaching. Scholars have long advocated the importance of ‘practical’ knowledge and ‘practical’ knowing, while also acknowledging the troublesome conceptualisation of the ‘practical’; in multiple, and often conflicting, ways of coming to know the ‘practical’ (Van Manen 1977), in tension-filled lived pathic knowledge (Van Manen 2008), and in the necessity and difficulty of personalised practical knowledge (Clandinin and Connelly 1987). In part to address these particular issues that teacher educators struggle to reconcile, and despite the complexity of this challenge, some teacher education researchers (Loughran 2002, 2006, 2007, 2008; Korthagen and Kessels 1999; Swennen and van der Klink 2009; Van Manen 2008) have proposed concepts, developed

frameworks and defined distinct approaches that attempt to articulate a pedagogy of teacher education. They suggest that a pedagogical framework of teacher education is needed to capture the elusive nature of the processes of teacher education and provide a guide to teacher educators' decision-making to supporting pre-service teachers learning. The pedagogy of teacher education involves 'a knowledge of teaching and a knowledge of learning about teaching and how the two influence each other in the pedagogic episodes that teacher educators create to offer students of teaching experiences that might inform their developing views of practice' (Loughran 2008, 1180). In teacher education, contexts, Loughran (2006) argues that teacher educators should be concerned with what they are teaching, how they are teaching as well as articulating the 'why' of these pedagogic decisions. The following section considers these two key aspects that might form a framework for pedagogy of teacher education: (1) learning about teaching and (2) teaching about teaching.

Learning about teaching

There is much debate about the relationship between college-based courses and school-based elements in pre-service teacher education programmes. Teacher educators are challenged to make the relevance and value of the learning in college-based courses clear to pre-service teachers. To address this 'relevance' issue, some researchers have suggested placing practice (i.e teaching) and pedagogies of enactment, including approximations of practice, as a central focus of all elements of teacher education programmes to help avoid a separation of theory and practice (Grossman et al. 2009; Loughran 2006; Intrator and Kunzman 2009; Ryan 2008). The importance of supporting an integrated approach to learning with opportunities to test theory in relevant settings is central to the thesis of 'realistic' teacher education (Korthagen 2001; Korthagen and Kessels 1999; Tigchelaar and Korthagen 2004). Loughran (2006)

suggests that grounding learning about teaching in preservice teachers' awareness of their learning content, while learning about learning, can support an integrated approach in which pre-service teachers are supported to see the relevance of their learning. It seems that modelling by teacher educators (Brookfield 2006; Holt-Reynolds 1992; The Teaching Council 2011) that allows preservice teachers to experience learning, similar to that which they are expected to create as teachers in the future, may support learning based upon a shared language of practice, helping to address this relevance issue (Loughran 2006).

The challenge of integrating theory and its application to practice in college-based courses may be accentuated in some subjects (such as art, music and physical education) because of the perceived 'practical' nature of the subject and pre-service teachers' beliefs that they can learn best to teach these subjects through participation and practical engagement with curricular area content (e.g. Ní Chróinín, 2009). It may be argued that the 'practical' nature of these subjects may lend themselves to a more seamless integration of theory and practice. Pre-service teacher experiences in these subject areas do generally include opportunities for practical engagement in 'doing' the subject as well as opportunities to teach the subject (e.g. Carney and Guthrie 1999). However, pre-service teachers' expectations of learning through practical engagement may challenge teacher educators to demonstrate the value of aspects of their courses that are not grounded in practical learning. The importance of participation in activity and practical learning in shaping preparation for teaching these subject areas has been explored previously in music education (Wright and Kanellopoulos 2010), visual art education (Shreeve et al. 2010) and physical education (Elliot et al. 2011, Garrett and Wrench 2007). These studies have highlighted the role of practical engagement and activity-based learning in developing a richer insight into teaching and learning concepts such as autonomy, creativity and collaborative learning. Shreeve et al. (2010, 135) found that practical learning experiences supported 'a dialogue that seeks to engage students with the language and

concepts of the material and performance aspects of creative work'. These studies suggest that hands-on experiences can encourage learning that is dialogic, informative and transformative. Practical engagement in these subject areas in college-based courses may help to address the 'relevance' concerns expressed by pre-service teachers in relation to their college-based courses.

Teaching about teaching

Loughran (2006, 18) argues that students should not merely be told what to do, and pushes for students' understanding of their learning in teacher education to be challenged and stretched beyond 'a store of tips and tricks or the simple delivery of information about teaching'. He suggests that teaching about teaching requires teacher educators to provide their students with access to 'the thoughts and actions that shape such practice; they need to be able to see and hear the pedagogical reasoning that underpins the teaching they are experiencing (Loughran 2006, 5). This approach acknowledges the value of the subject matter being taught but also emphasises the importance of how the experiences, tasks and activities to support this learning are devised. Loughran (2006) suggests that it is important to make clear to pre-service teachers how the learning approaches adopted purposefully encourage intended learning: teacher educators must be explicit about their decisions and actions around teaching to support pre-service teachers to see and value the learning experiences as a basis for their future teacher role.

Purpose of the research study

Self-study and reflection play an important role in enhancing teacher educator learning and practices (LaBoskey 1997, 2004; Loughran 2007; Russell 2006; Whitehead and McNiff 2006; Zeichner 2007). Zeichner (2007) argues that self-study can provide a mechanism for practising teacher educators' work to make a greater impact on teacher education research and policy development. Loughran (2007) suggests that self-study can be strengthened by drawing on multiple perspectives that prompt moving beyond the self to deepen understanding of the relationships between teaching and learning to support development of a pedagogy of teacher education. Consideration of the effectiveness of these learning experiences and reflection on these shared teaching and learning experiences can support teacher educator learning and impact on their practices (Loughran 2006; Prosser and Trigwell 1999; Swennen and van der Klink 2009).

While aspects of a pedagogy of teacher education has been proposed (Loughran 2006), it is possible that this pedagogy may present differently in 'practical' subject areas. Zeichner (2005) recommends that more research is needed on teacher preparation in specific subject areas. It is important to get pre-service teachers' perspectives on how these learning experiences can best support their learning to teach as they can provide insight on what they value, how and what they learn and what messages they take from these experiences. This study aimed to gain insight into pre-service teachers' perspectives on teaching and learning experiences within college-based courses in music, art and physical education within a teacher education programme and asked the following research questions:

- 1) What are pre-service primary teachers' perspectives on teaching and learning experiences in college-based courses in 'practical' subjects (art, music and physical education)?
- 2) How can these perspectives inform identification of key aspects of a pedagogy of teacher education in these 'practical' subject areas?

Accessing pre-service teachers' perspectives allows us to 'see our practice through our students' eyes' (Loughran 2006, 61). Insight on pre-service teacher perspectives can prompt and support teacher educators to reflect on their practices and to modify (where appropriate) the design of learning experiences in pre-service teacher education. An understanding of how learners interpret the purposes of learning activities can enhance student learning by sensitising and informing teacher educator's teaching practices (Kumaravadivelu 1991).

Loughran (2006) argues that articulation of a pedagogy of teacher education is an essential to valuing the role of teacher education programmes in pre-service teacher learning (Loughran 2006, 2008). He suggests that researching and sharing teacher educator practices is crucial to articulating a shared pedagogy of teacher education (Loughran 2006). Examination of the link between teacher educator practices and pre-service teacher perspectives on teaching and learning allows for exploration of effective pedagogies of teacher education in college-based courses and, in particular, in subject areas where engagement in 'practical' activity is central to pre-service teacher learning.

Methodology

Research context and participants

This cross sectional qualitative research study was a collaborative practitioner-led initiative within an undergraduate pre-service primary teacher education programme involving four teacher educators and the Teaching and Learning Advocate from the Centre for Teaching and Learning in Bishops College (pseudonym). The participants in this research were teacher educators (n-3) and first and second year pre-service teachers (n-11). The remaining teacher educator was involved in the role of focus group participant, lecture participant and observer, and the Teaching and Learning Advocate acted as an independent observer during teaching and learning sessions. All three teacher educators were engaged in small group teaching (approximately 30 participants) in art and physical education and in medium large group teaching (approximately 50 participants) for music education within dedicated spaces (art studio, within sports hall) and used specialised equipment (e.g. musical instruments).

Ethical considerations

Ethical approval was granted by the college's ethics committee. All students were provided with detailed information sheets and signed informed consent. Students volunteered to participate in the focus group after each lecture and emphasis was placed on the purpose of the focus group interviews to provide feedback to support the design of future learning experiences. The Teaching and Learning Advocate, who is responsible for formal college feedback mechanisms with these students, attended all focus group interviews. This experience also included an element of risk for the teacher educators who opened up their practices to critique by both their students and their colleagues. This collaborative process of

sharing was supported by extensive dialogue and conversations, particularly to reassure teacher educators after their lecture. These teacher educators were colleagues who had worked successfully together on other projects – we suggest that a sense of trust between colleagues was a prerequisite to engaging in this type of activity.

Table 1. Overview of each lecture.

Teacher educator	Focus of the lecture	Learning outcomes	Sample lecture activities
Laura	Applying fundamental game skills to striking and fielding games	<ol style="list-style-type: none"> (1) Identify skills required to play striking and fielding games (2) Provide teaching and learning experiences in games 	Student-led warm-up activity Game-based fundamental skill practices – throw, catch, strike Designing tasks for practice of one of these skills in context Pair discussion
Max	Innovations in looking and responding to artworks in local and contemporary art settings	<ol style="list-style-type: none"> (1) Explore and engage with an artwork on the college environs (2) Respond visually to an artwork through simple problem-based activity (3) Identify and consider strategies to engage pupils in looking and responding-based visual art lessons 	Sketching and analysis of selected artwork Group construction of art pieces inspired by the work of art examined Discussion and reflection on resources and strategies to engage children in these activities
Anna	World music in the classroom	<ol style="list-style-type: none"> (1) Explore music from different countries and cultures (2) Acquire and develop listening and performing skills through a variety of activities (3) Identify a variety of methodologies for the teaching of world music through the listening and responding and performing strand of the music curriculum (4) Recognise scope for developing the music elements through world music activities 	Song singing in unison and parts Active listening and discussion Rhythm literacy and the use of body percussion

The lecture

Dedicated learning opportunities in art, music and physical education are provided within the teacher education programme in Bishops College. Three primary teacher educators (in art, music and physical education) on this primary pre-service teacher education programme planned and delivered a one hour lecture to their students in their subject area. The

importance of providing a positive, engaging learning experience was the starting point for lecture design: 'Because we expect our students to create classrooms that support the learning of their students, we try to create classrooms that will provide them with similarly supportive experiences...' (Guilfoyle et al. 1995, 53). All three teacher educators were committed to providing their students with an integrated learning experiences where opportunities to 'do' art, music and physical education were central to the learning. This complements Loughran's (2006) argument that learning actively rather than passively 'should constitute the heart of the learning enterprise' (308). In this study, this involved learning through engaging in the activity that constituted the subject area, for example playing a game of softball, constructing an artwork or playing a musical instrument for at least 50% of the lecture time. The teacher educators were also aware of the need to make connections between the learning experiences in the lecture and its application to school contexts to make learning 'relevant' to these pre-service teachers. Each teacher educator (n = 3) submitted a detailed planning documentation prior to the lecture (Table 1). This table illustrates the learning outcomes planned for, the key content areas that were the focus of each lecture and some of the lecture activities targeted to support this learning.

Data collection and analysis

Each lecture was observed by two members of the research team, with one member of the research team also participating in the lecture, a peer participant. At the end of each lecture, three to five student participants were invited to participate in a focus group interview of 20 minutes duration approximately. This focus group happened directly after the lecture to examine immediate reactions. Different students participated in each focus group. A focus group format was chosen to promote a variety of viewpoints in a non-directive way (Kvale

and Brinkmann 2009) that would lead to joint production of meaning and allow participants to highlight issues that were important and significant to them (Bryman 2008). Given the overlap of teacher educator-researcher roles, this format also provided a more supportive environment for students to express their viewpoints in this ‘backyard’ (Creswell 2009) research. The focus group was led by a member of the research team, who had acted as an observer for the lecture, and the research team peer participant also took part in the focus group. This served to demonstrate the importance of the participant’s perspective and supported triangulation of perspectives. The focus group was structured around a series of prompt questions that allowed the students’ scope to explore and develop ideas and consider the value of their experiences and learning to their future role as a teacher.

After the lecture, each teacher educator completed a reflection on their lecture. The focus group interview recordings were orthographically transcribed and organised within NVivo8 along with the teacher educator planning and reflection documents. Data were analysed by two of the research team using the constant comparative method (Denzin and Lincoln 1994; Lincoln and Guba 1985). Reading and rereading of the focus group data supported the construction of themes based on patterns within and across the focus group transcripts. Both teacher educator planning and reflection documents were used as a point of reference to provide further insight into the relationship between teacher educator perspectives and student experience. Trustworthiness of the analysis was addressed using a peer observer and debriefer: the Teaching and Learning Advocate independently observed all four lectures and acted as a peer debriefer who contributed to both triangulating and strengthening the reliability of the observations and conclusions.

Findings

Insight on student perspectives on teaching and learning in these ‘practical’ subject areas highlights the importance of learning through ‘practical’ activity as well as the need for teacher educators to be explicit about the purposes and relevance of each learning activity to pre-service teachers’ learning in these subject areas. The following section explores the key aspects of the teaching and learning experiences that impacted student engagement and learning using the following headings: (1) creating safe learning spaces, (2) learning about teaching: learning through ‘practical’ activity and (3) teaching about teaching: ‘making the tacit explicit’. Examination of the students’ perspectives on these teaching and learning experiences provides insight on how these teacher educators supported student learning and allows for consideration of what may enhance student experience and student learning in these pre-service teacher education contexts. The implications for teacher educator practices and the contribution of these findings to a pedagogy of teacher education in these ‘practical’ subject areas are discussed.

Creating safe learning spaces

How learning experiences were organised seemed to be very significant in supporting student learning. All the students acknowledged that these teacher educators presented themselves and their area of expertise in a positive manner with commitment and enthusiasm, which has been noted as important in motivating student learning (Moore and Kuol 2007). The students reported that Max ‘is very enthusiastic...and that comes across really well’ (FG Max2). The students were aware that the teacher educators were using a variety of strategies to engage and motivate them, recognising that the teacher educators wanted them to learn more than the curricular area content knowledge through engagement in these activities. In the art lecture,

some students recognised that Max was trying to ‘awaken ideas’ (FG Max) in them. They saw how the opportunity to experience the art observation and sketching activity themselves supported their learning and enhanced the value that the participants placed on this activity: ‘nudging as opposed to directing’ (FG Max). All three teacher educators evaluated their lecture in relation to student learning: their criteria for success were based on student engagement and student response: ‘I was pleased that the groups participated well in playing the game and seemed to enjoy the activity’ (Reflection Laura). All three teacher educators modified tasks/ activities during their lecture plan in reaction to student response. In the music lecture Anna was keenly aware of the culture of the group:

‘There appears to be a group culture of silence and non-participation amongst this group which inhibits their experience. As well as this, the students seem to be uncomfortable with sharing their thoughts and ideas, which may be due to their youth and comfort with a more traditional didactic way of teaching and learning often promoted in secondary school’ (Reflection Anna).

The students were also aware of their own contributions to the lectures and their responsibilities as learners. The participants in the music lecture were aware of their own engagement in the lecture: ‘...we’re not the best group to start talking about things... it’s fairly quiet in the classroom when questions are asked, I dunno why. It’s not the best group in the world for speaking up’ (FG Anna). This highlights the importance of flexible approaches and the need to constantly adapt pedagogies based on student response (Brookfield 2006). In these pre-service teacher education contexts, consideration needs to be given to strategies that promote these learners to take more responsibility for their contribution to their own learning (Prosser and Trigwell 1999). Loughran suggests that ‘students need to be challenged as learners through their pedagogical experiences if they are to do more than just absorb information’ (2006, 92). In this case, Anna responded to the group’s silence by changing from whole group to paired work to try and elicit responses and encourage participation.

All the teacher educators used a combination of individual/pair and group activities during all three lectures. In all three focus groups, the participants talked about the impact of working in a group versus working as an individual. In physical education, they suggested that ‘...you’re always afraid of making a fool of yourself...you’re with your peers’ (FG Laura). With the music group, who were particularly reluctant to contribute, ‘people are afraid to say what they think in case it’s wrong’ (FG Anna), and suggested that group and whole group activities provided a safe space for those with less music confidence to contribute. These participants suggested that use of group work might provide a safe space for more active involvement in the lecture: ‘everyone freezes when she just asks a question to the class, like it does work better when you just talk about it between yourselves’ (FG Anna). Anna also recognised that pair and group work elicited a more effective response from the group during the music lecture and she reflected that use of group work earlier in the lecture might have got a more engaged response. This underlines the importance, as noted by Prosser and Trigwell (1999), of considering the alignment between the purposes of teaching and learning and the engagement activities, and suggests that group-based tasks may provide a safe space for preservice teachers to learn through practical engagement with these curricular areas.

It seems that the students feel safest participating in practical activities in smaller groups which would suggest that this pedagogy should be adopted more in these settings. However, the use of group work raised a number of issues for the students with regard to individual contributions. In the art lecture, it seemed that lack of structure and group size impacted individual contributions where some students just ‘did nothing’ (FG Max). In the physical education lecture, students expressed concern about the potential for students to go off task during group work and questioned whether primary school age children would be able for the responsibility of group work. Furthermore, it is interesting to note that issues of engagement

were most noticeable in the music lecture - the group of 50 students - which suggests that students may struggle to participate as actively in larger group settings.

Learning about teaching: learning through 'practical' activity

All three teacher educators planned for active participation of students in 'doing' the curricular area - making art, playing games and making music. Students acknowledged that the curricular area content was relevant to them and that learning this content was important. The students believed that they learn how to teach these curricular areas through active engagement with the content:

I think with the singing what's good I think is you're doing harmonies today and like most people would be like "oh I'm not musical at all" but like everyone's taking part doing a harmony and they don't even kind of realise do you know what I mean so like you are progressing and you don't realise... people are realising they're more musical. (FG Anna)

This underlines the importance of providing students with practical experiences in 'doing' art, music and physical education as a basis for future action as teachers (Garrett and Wrench 2007; Shreeve et al. 2010; Wright and Kanellopoulos 2010). In the music lecture, the students recognised the wide range of ability in the class, and emphasised opportunities to participate in musical activities as the key to future teaching of music:

'I think like it's really practical that you could go in and do like beats and rhythms in the school whereas maybe you wouldn't have had a clue how to even approach it before, so I think in that way music is very like practical' (FG Anna).

They felt that these activities allowed the group to participate, practise and develop their musical competence in a safe way. The students' experiences appeared to be filtered by an awareness of their positioning as future teachers: they seemed to constantly evaluate the merits of activities based on their potential application, and their feasibility and transferability

to the classroom context. They reported that most worthwhile activities were those that were directly applicable to school contexts without modification: ‘ “I could put a beat on the board if I was in a school and I could clap and I could do this...” ’ so it’s practical that you can see fairly easily how you could adapt it to your own classroom...’ (FG Anna).

The students were aware that the teacher educators were modelling practice. They appreciated when the teacher educator modelled directly how they would teach certain activities. This seems to indicate that the students value and enjoy activities where they are shown exactly what to do and how to do it suggesting that these preservice teachers are looking for one correct way of teaching. This is a valuable insight into how these pre-service teachers approach their teacher education experiences and highlights the importance of being aware of and challenging student perspectives on how they learn best when supporting pre-service teacher development (Loughran 2006).

Some aspects of the lecture and some of learning activities were not discussed or mentioned by participants in the focus groups. This does not necessarily imply that students did not learn from these parts of the lecture, but the participants tended to discuss their experiences of the ‘doing’ activity rather than the parts of the lecture where the emphasis was on listening and discussion. This indicates an emphasis placed by students on practical knowledge and activity as reported elsewhere (Ryan 2008). In the art lecture, Max questioned whether his intention in the ‘listening’ part of the lecture was achieved. He was happy that he had presented the material well but without feedback from the lecture participants; he was unsure of its impact. This highlights the importance of obtaining feedback in parts of the lecture where there is not a physical product or process to evaluate student perspectives and their learning. The balance between providing a safe and engaging learning environment for students (Brookfield 2006) to develop confidence and competence in art, music and physical education and modelling

pedagogies (Loughran 2006) that students see as appropriate and realistic for their future practice as teachers requires careful consideration.

Teaching about teaching: 'making the tacit explicit'

The students who participated in the focus group interview after each of the lectures were able to identify what the teacher educator's main learning intentions had been though they recognised that there was 'a lot going on' (FG Laura). Messages related to integration across curriculum areas (music), the importance of playing different types of games (strike and field) and the potential of artistic engagement through online and situated gallery spaces (art) were all strongly heard by the participants. This suggests that the overall the teacher educators were successful in supporting students' learning experiences (see Table 1).

Though the students clearly identified the key teaching and learning emphases related to the main content area of the lecture, students did not always pick up on the intended learning of specific activities during the lecture. For example, one of the tasks in the art lecture involved a problem-solving activity where the materials and task assigned to the group were based on a previous examination of an allocated art piece. Some of the students saw the connection between the materials they were given, the art work they had sketched and the 'problem' to be solved. However, one student in the focus group had completely missed the intended learning in this part of the lecture: 'I'm not sure what the sketching had to do with the overall second task whatsoever' (FG Max). Neither did all students grasp fully the learning intended for a certain activity related to engagement with harmonies during the music lecture. When one student with previous music experience identified what was the learning intended by this activity, the other focus group participants on this occasion acknowledged that they had not been aware of this before their classmate had mentioned it. Although variance in student

learning has been noted (Prosser and Trigwell 1999), as well as student difference in reflection (LaBoskey 1994), these examples highlight the importance of ‘making the tacit explicit’ (Loughran 2006, 49) to allow students to make connections and to support their appreciation of the content, and pedagogical approach, and its application to the school context. Although they acknowledged that teacher educators considered their learning in relation to organisation and management, methodologies and approaches, it highlights that the importance of ‘the teacher educator behaves as a model and at the same time explicitly reflects “in action” ’ (Tigchelaar and Korthagen 2004, 674), in order to develop ideas naturally out of practical learning encounters.

All three teacher educators described contextual issues that they felt impacted the student learning in the lectures. All three lectures observed were one hour in duration. Max described how he constantly struggles with creating meaningful art experiences for the students within a limited space and time frame. Interestingly, the students are aware of this sense of time pressure and also felt that they were fitting in too much in too little time. This highlights that students can be aware of the context and structure of their learning experiences (Loughran 2006). Max was also conscious of the timing of this art lecture within the student’s schedule - from five o’clock to six o’clock in the evening. Though the students did not really recognise it, Max was conscious of low energy levels and felt that some of the students were just too tired to engage: ‘although the students went to an artwork, I found... that they were baffled and too tired to engage with anything’ (Reflection Max). He considered the first art task of his lecture to be completely unsuccessful as students did not engage at the level he had hoped; however, students felt this part of the lecture was really valuable, saw a clear application to school contexts and felt Max had given them space to engage in their chosen way. Anna also mentioned that the timing of her music education lecture (at nine o’clock in the morning) might have had an impact on student engagement. However, more critical for her was the

limited size of available physical space for the lecture; it was not possible to set up a circle format which may, she felt, have promoted greater student participation in the lecture. The students did not comment on the organisation of the physical space and did pick this message up from Anna.

Laura mentioned no such issues of time or space in the physical education lecture, but, interestingly, the students raised issues around the space being ‘too ideal’. Students discussed how they could not imagine doing the activity in this lecture in a smaller space with young children, and mentioned that they would need to see it happening with children in an authentic setting to believe it. This seems to reflect particular special organisational and management challenges associated with being a novice teacher of physical education that are not as evident in art or music contexts. This has echoes of comments made by the participants in Ryan’s study, who went as far as to say they believed that ‘their teachers at university being ‘‘out of touch’’ with schools’ (2008, 137). It may seem that the cramped conditions of the art and music spaces better reflected what students perceived they will experience in school contexts and therefore seemed more relevant to the students. This further indicates that pre-service teachers’ thinking is being framed by their future school contexts (Britzman 2003; Prosser and Trigwell 1999) and highlights the importance of explicating our teaching to allay the incidence of missed messages, but also to challenge students’ engagement with learning experiences and their understanding of their application to their future teaching: ‘In teaching about teaching, making the tacit explicit matters’ (Loughran 2006, 49).

The implications for a pedagogy of teacher education

A pedagogy that problematises the ‘practical’ in teacher education highlights not only the appeal of, but also the peril of, the ‘practical’. By overly focusing on the ‘practical’ and

undermining the broad factors and features of the ‘practical’, learning may be impeded. However, Loughran’s (2006) framework seems to provide an effective overall guiding pedagogy for ‘practical’ subject areas such as art, music and physical education in pre-service contexts. It is clear that teacher educators cannot alone determine student learning which is impacted by a range of factors (Entwistle 2009; LaBoskey 1994; Prosser and Trigwell 1999; Trigwell et al. 1999). However, in finding out what was valued by students in teaching and learning, and why it was valued, this study suggests key considerations in designing teaching and learning experiences in these ‘practical’ areas for pre-service teachers. There was a strong relationship between pre-service teachers’ understanding of the purposes of the teaching and learning experience and teacher educator positioning, which suggests that the pedagogies selected complemented the intended learning. The importance of creating safe supportive learning spaces is highlighted as essential to encouraging pre-service teachers’ active engagement in teaching and learning contexts. It seems that pair and group work activities that did not expose or isolate an individual or require them to perform alone were preferred as they provided a ‘safe’ peer environment for their performances. While this finding raises concerns about the previous experiences and levels of knowledge of these pre-service teachers, it also highlights the importance of peer-led and small group activities as a central element of the pedagogy of these ‘practical’ subject areas. This aspect of the teaching and learning experience in college-based courses as part of primary pre-service contexts has not been explored previously and merits further investigation. These findings confirm the value of practical engagement in ‘doing’ these subjects as a key component of pre-service teacher learning. Participation in practical learning experiences was important to the pre-service teachers to allow them to develop their own confidence and competence in ‘doing’ art, music and physical education as a basis for their future action as teachers. Hence, ‘practical’ engagement is emphasised as a key pedagogy in these ‘practical’ subject areas.

Overall, these findings allow for consideration of how teacher educators can enhance student experience and student learning in college-based pre-service teacher education programmes. However, this is not to assume that all teacher educator practices should be aligned with pre-service teacher perspectives, or in the case of these findings, only include 'practical' learning experiences. Rather, this understanding can, in some cases, form a basis to challenge and possibly change their perspectives: to support them to see the relevance and value of all teaching and learning experiences. The importance of teacher educators' teaching about teaching and 'making the tacit explicit' (Loughran 2006, 49) emerged as a key pedagogy for teacher educators in practical areas. The importance of this approach is evident in what the pre-service teachers discussed and valued as well as aspects that they did not consider important. Talking about teaching may provide a platform to support, and in some cases challenge, student perspectives on their learning. This means that teacher educators must not only be clear about their intentions but also provide students the opportunity to access and question the why and how, and to problematise the teaching itself (Britzman 2003; Loughran 2006; Prosser and Trigwell 1999). For example, in this study, these pre-service teachers most valued activities that they could translate directly into the classroom context. This understanding is useful to inform selection and presentation of activities within lectures as well as highlighting the importance of challenging this orthodoxy of understanding. Also, the desire of students to participate in activities in the role of the pupil, with the teacher educator modelling (Brookfield 2006; Holt-Reynolds 1992) activity, suggests that these pre-service teachers may not feel ready to take on the role of teacher, preferring to learn through the pupil role. It is essential that this modelling is accompanied by opportunities to discuss the pedagogic decisions made by the teacher educator during the modelling process. Without this space, there is a danger that pre-service teachers view these experiences as a formula to follow in their own teaching without consideration of who they are teaching or the context in

which they are teaching. In this study, this issue of relevance was particularly evident in aspects that pre-service teachers did not relate directly to school contexts. By emphasising teaching about teaching, learning to teach then becomes about more than the strategies and actions of teaching, it becomes about 'the relationship between teaching and learning, and how together they lead to growth in knowledge and understanding through meaningful practice' (Loughran 2006, 3). Opportunities for shared reflection on lectures in this way can enhance and extend pre-service teachers' learning.

Reflection on teaching and learning is a key component of developing practice as a teacher educator (Cochran-Smith 2003; Russell and Korthagen 1995). In this study, use of a self-study approach helped to gain insight on student experiences during teaching and learning experiences and supported informed reflection by teacher educators as a basis for their developing pedagogies of teacher education (Guilfoyle et al. 1995; Swennen and van der Klink 2009). Each of the three teacher educators in this study designed a series of activities to support student learning (Entwistle 2002; Prosser and Trigwell 1999). After each lecture, the three teacher educators critically evaluated its success. Brookfield (2006) emphasises the importance of teachers' ability to 'talk aloud the reasons for their classroom decisions, course design, and evaluative criteria' (Brookfield 2006, 63). Overall, the teacher educators considered the teaching and learning experiences to be successful [though of course all three suggested multiple ways in which they could change future lectures (Brookfield 2006; Loughran 2002)]. However, these reflections alone, taken in isolation from student perspectives, may provide teacher educators with a limited view of their practices. Loughran (2006) emphasises the importance of looking at our practice by contextualising and envisioning learning through student perspective. Tigchelaar and Korthagen (2004) also capture the importance of the student positioning as central to the impact of the teaching and learning process. These findings highlight the importance of student perspectives on their

pre-service experiences as a key informant to future planning: teacher educators need to be aware of the impact of the learning experiences they have designed on student engagement and learning in pre-service contexts, and provide spaces for student feedback to guide how best to support student learning.

The tension that exists within the meaning and enactment of the 'practical' in teacher education creates valuable learning opportunities for learners, and a significant opportunity for developing students' understanding in 'practical' subjects with 'practical' aspects exists, by making salient use of this tension (Connelly and Clandinin 1995; Van Manen 1977, 2008). The findings of this study support current proposals vis-a`-vis a reformed pedagogy of teacher education (Loughran 2006, 2007, 2008) and suggest some additional strategies that are central to learning in 'practical' subject areas such as art, music and physical education. In particular, the importance of 'practical' experiences to support pre-service teachers' engagement learning is emphasised. The value they place on modelling by teacher educators in these 'practical' subject areas as well as teacher educators creating spaces to reflect on their pedagogical decisions with the pre-service teachers is central to enhancing the learning from every part of the lecture, particularly aspects that are not 'practical'. These spaces are crucial to creating a shared understanding of teaching and learning in pre-service contexts.

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