Shared learning, different contexts: understanding teaching for meaning in pre-service physical education teacher education

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Context:

Researchers engaging in self-study "are committed to their ongoing professional learning and explore their assumptions, beliefs and actions as they are enacted in practice" (Casey et al., 2018, p.56). Maura, Richard and Tony are primary physical education teacher educators working with generalist pre-service teachers (PSTs) in three different universities in Ireland. Maura and Richard had already participated in a larger, international self-study project focused on Meaningful Physical Education (MPE); these experiences prompted us to continue our explorations of the approach. We had come to understand the features of MPE (the 'what'), but felt we needed to examine our understanding, and explore how to improve our practice by utilising the pedagogical principles of MPE (the 'how'). Tony had become interested in the MPE approach through attendance at various conferences and engagement with the literature. Through discussions at one such conference, Tony was invited to join and engage in a collaborative self-study. In that context, we decided to examine how to integrate the MPE concept into our teaching practices.

Our paper examines our exploration of MPE with PSTs over the course of one 12-week semester in each of our separate contexts. One of the objectives of our teacher education programmes is to ensure that PSTs learn how to facilitate meaningful school-based physical education. This can be achieved through an examination of their own meaningful experience and exploring the literature referencing MPE its features and pedagogical principles. The features of these meaningful physical education experiences are social interaction; fun; challenge; motor competence; personally relevant learning; and delight (Beni et al., 2017). Ní Chróinín et al. (2017) have identified five pedagogical principles for the MPE approach:

- meaningful participation should be explicitly prioritised in planning, teaching and assessing Physical Education Teacher Education (PETE) experiences.
- pedagogies that support meaningful participation should be modelled by teacher educators and made a source of inquiry for PSTs
- PSTs should be supported to engage with meaningful participation as a learner and physical activity participant and as a teacher of peers and children.
- learning activities should be framed using Beni et al.'s (2017) and Kretchmar's (2006) features of meaningful school-based physical education: social interaction, 'just right' challenge, motor learning, fun, personally relevant learning, and delight.
- PSTs should be supported to reflect on the meaningfulness of physical education experiences using these criteria.

Building on this existing research, our study asked: how does our engagement with the five pedagogical principles of MPE impact our teaching approaches?

Methods:

This research project adopted a collaborative self-study of teacher education practices (S-STEP). Self-study requires teachers to describe and analyse their practice, identify the ways their beliefs and pedagogical actions align, make judgments on teaching and learning encounters, interpret their developing pedagogies and identify enabling and limiting aspects of pedagogical practices (Ovens & Fletcher, 2014). Moreover, collaborative self-study has been proposed a useful methodology to facilitate an examination of teacher educators' learning through reflection and critical friendship (O Dwyer et al., 2019). Self-study can be collaborative, where two or more participants initiate a shared learning focus and collaborate as critical friends for each other. There is much evidence of learning in collaborative self-

studies in teacher education practices (Bullock & Ritter, 2011; Fletcher & Bullock, 2012; Petrarca & Bullock, 2014; Richards & Ressler, 2016). Collaborative self-study highlights the importance of openness and critical honesty within the group (Butler et al., 2014), a collective commitment of the participants to their learning and growth (Berry, van den Bos, Geursen & Lunenberg, 2018; Davey et al., 2010) and contributes to the criteria for rigour in S-STEP research. The trustworthiness of self-study is established when researchers provide a detailed explanation of their procedures and commit to sharing their work with others (LaBoskey, 2004). Guided by these principles of collaborative self-study (Richards & Ressler, 2016) and responding to Zeichner's (2007) call for self-study research that makes connections across different settings and contexts, our modelling of meaningful physical education also provided opportunities for us to 'teach about teaching' (Loughran, 2006). This provided us with the opportunity to articulate our decision-making and encourage interrogation of our decisions and actions.

Our use of collaborative self-study helped us understand and improve our practice through an MPE lens (LaBoskey, 2004; Ní Chróinín et al., 2015). Specifically, we engaged in a systematic, cyclical process of developing, implementing and reflecting on the effectiveness of the features and the pedagogical principles of MPE enacted in our teaching. The research design reflects LaBoskey's (2004) five characteristics of quality in S-STEP as it:

- was self-initiated and self-focused: we shared a collective desire to identify ways to teach teachers about facilitating meaningful experiences;
- was improvement-aimed; we wanted to better understand this approach and affect practice;
- was interactive in terms of its process as we relied on interactions with each other and the
 available literature to better understand our individual and collective experiences of the
 pedagogies utilised;
- employed multiple qualitative methods including exit slips, reflections, conversations and critical responses to each other's reflections;
- involved sharing details of our research processes to enhance trustworthiness of our findings.

Data Sources & Analysis:

Each of us chose to simultaneously focus on the MPE approach, and specifically the pedagogical principles in its implementation throughout the course of one of our pre-existing modules for a semester. The modules we were teaching varied in content, including outdoor and adventure activities, games and fundamental movement skills, but were all related to teaching primary physical education. Fortnightly reflections (r) were completed online using an agreed reflective template. These reflections focused on: what pedagogical principles did or did not work well; the challenges faced and how they were overcome; impressions of the pedagogical principles; what practice was productive in our module delivery; developing a shared understanding of practice and implications for future teaching of these modules and also for primary physical education in the broader sense.

We each acted as critical friends for each other in reading and commenting on each other's reflections (Schuck & Russell, 2005). These comments took the form of feedback, critical questioning to push our thinking and help where we might have identified problems. The comments (e.g. Maura, Tr1 – Maura commenting on Tony's first reflection) supported and informed our short-term planning for teaching subsequent sessions, as it prompted us to think more deeply about our practice, individually and collectively. Each of us concluded the study with a final personal meta-reflection (mr) which we also commented on (e.g. Tony, Rmr – Tony commenting on Richard's meta-reflection).

We conducted three Skype conversations (sc) prior to, during, and at the end of the teaching semester. These discussions allowed us to initially frame our thoughts and understanding of our Self-study collaboration and Meaningful Physical Education. At the midpoint and end of teaching the module these Skype conversations allowed us the opportunity to share how our understanding had developed, and how we were improving our practice using the MPE approach. These transcribed conversations (n=3), reflections and the associated commentary from the critical friends (n=17) were the data source for this project.

The data were individually analysed by each of us in the first instance, independently generating initial codes by identifying recurring points of interest from the dataset. These codes were compared and discussed by the three of us as outlined by Braun and Clarke (2013), leading to the identification of three central themes. This approach, using multiple data sources and perspectives, along with our process of data analysis enhanced the trustworthiness of our data.

Outcomes:

The MPE approach we undertook in our planning, teaching and reflecting, became the lens through which we came to better understand and improve our practice. The dialogue and reflections within our collaboration, using the S-STEP approach, led to significant personal and professional learning. The key findings illustrate how we better understood and improved our teaching approaches as the semester progressed. The collaboration was valuable as we interrogated our understanding of practice with a view to improving the learning experiences of our PSTs. Importantly, although we taught within different contexts, there were examples of individual and collective learning as we shared our experiences. We describe our findings across three related themes.

Collaborative S-STEP promoting teacher education development

Our first theme describes how the collaborative self-study structure supported our engagement with pedagogical innovation. Learning for teacher educators has been described as "messy and complex" (Patton & Parker 2017, p.351). Our shared experiences enriched our individual teaching strategies and served to motivate us to problematize these "complex aspects of practice" (Casey et al. 2018, p.64). Firstly, the sense of collegiality developed through our discussions helped to decrease of isolation that is not uncommon in teacher education contexts where educators may work on their own, or in situations that have been described as "academic silos" (Allison & Zain, 2018, p. 423). As Richard noted "I like the idea that I'm not working in isolation, and I can share my thoughts and reflections with other teacher educators" (mr). Embedded within this collegial support was a feeling of loyalty to each other as critical friends; this motivated us to engage in the process consistently. In this context, Tony highlighted the "responsibility to reflect on the other two points of our simultaneous research triangle" (mr) as a key motivator for him.

Our study supported our engagement in regular reflective practice. This improved what we had been doing before the project and prompted a deeper experience. Maura's comment suggests changed perspectives on her teaching:

This process is making me question how I do things...It's not that I don't try to review and update each year and this module has gone through lots of changes, but it's the systematic reflecting and critical friendships that are making it explicit for me. (r2).

Even in the early stages of the project, Richard was motivated to engage in further reading, based on the critical friend comments: "I found the comments from Tony and Maura on my first reflection, and the content of Maura's reflection, have been really helpful – prompting me to revisit the literature, and to reflect on my own teaching" (r2). Significantly for us, the

limited (but growing) body of existing research on MPE in teacher education settings was important to scaffold these discussions (e.g. Beni et al., 2018; Fletcher et al., 2018). While these comments illustrate a valuable impact on our own practice, we also began to make links to our students' learning. Having discussed self-study with his PSTs, Richard suggested that we might be able to support them to begin to use self-study to reflect on their own practice experiences in order to deepen their understanding of this practice. Tony went further, noting that the experience had highlighted the need for him to be a role model for his PSTs by sharing his own experiences with them:

We place a huge emphasis on reflective practice for our students on placement, but I must concede that I hadn't walked the walk in this respect before the self-study and engagement with critical friends this semester. In the future, I will need to bear witness and model the practice we have espoused for our students. (r4)

While we set out to explore the MPE concept, Maura's response highlights how self-study had, at a more fundamental level, impacted on our general teaching in a noteworthy way: "I'm more than convinced that although we set out to explore MPE we have come to understand our practice, and tried to improve our practice, through the process of collaborative self-study!" (r4). In this regard, our experiences align with Klein and Fitzgerald's (2018, p. 30) assertion that "self-study focuses on improvement on both the personal and professional levels". Initially, our self-study orientation supported our reflective practice but, crucially, also facilitated our understanding of practice, with a focus on improvement, as we proceeded through the semester.

Importantly, the experience has been transformative for us. In Tony's case, he believed his future practice would be enhanced: "my perspective has altered significantly, and I will be looking more critically at the What, How and Why of course planning for all cohorts in September" (r4). In a similar way, Maura suggested we were thinking "a little bit deeper about what we're doing...now, I'm really thinking about my teaching" (sc2). This engagement with critical friends provided effective support and challenged our existing physical education teaching and learning practices, throughout this project. Accordingly, collegial affirmation supported the impetus towards initially understanding, and then moving towards improving, one's own professional practice. This supportive environment was, therefore, conducive to enabling a clear focus on pedagogical innovation.

Shifting pedagogy: the 'how' of meaningful physical education becoming the 'how' of physical education

Integrating the MPE approach into our current teaching practice presented each of us with challenges. We identified parallels between the pedagogical principles of MPE and teaching approaches that we were already familiar with. This presented us with a dilemma as we compared our existing practices with our initial attempts to teach for meaning explicitly. In an attempt to explore this dilemma, Richard asked Maura, "How different/similar are the MPE pedagogical principles to what you would have been doing previously?" (Richard, Mr3). This is mirrored in Maura's comment that "I'm not sure I've cracked the pedagogical principles, though – I know what they are, but I don't think I have articulated them well enough to the students" (mr). Likewise, Richard described the "struggle to integrate them fully into my teaching in general" (r4). This level of uncertainty is perhaps understandable in the context of implementing a pedagogical innovation into a pre-existing module.

Our responses, as reflected in our shared reflections and subsequent discussions, suggest an increased attention to planning was important as we persisted with the implementation. Maura, for example, explained how she had adjusted her planning: "[I] colour code my lessons to show exactly where I propose to include MPE" (r1). Richard concurred, noting that his "pedagogies need to be planned carefully in order to help [our]

students learn about MPE" (r1). Tony saw the benefits of this, noting that the "principles [are] now influencing planning of teaching, which is a good thing, and more sustainable" (Tony, Mr2). By engaging in detailed, focus planning, we became more familiar with a wide range of MPE resources that had been developed previously. While we tried to incorporate these resources into our own practice, we noted that an uncritical adoption of these ideas might not work well in our individual contexts. As Tony commented, "what works...in a games lesson that we may...have read about, will not necessarily transfer to the situations that we were working in" (mr). Instead, we began to use these resources as a stimulus for reflection.

As we learned ourselves, we also began to reflect on our PSTs' learning about MPE. In addition, we wondered if we should be sharing our experiences with them. Richard saw value in "connecting our students' experiences to 'real life' situations...in order to stimulate debate and critical thinking" (r3). This led Maura to evaluate the ways she was trying to "integrate [the principles] into your teaching so that the students understand how to use them in their teaching" (Maura, Rr4). Crucially, she found it difficult to do this because practical examples from other teachers were scarce. Our discussions enabled us to reflect on, and trial possible solutions. In Richard's case, he tried to scaffold student reflection by using prompts such as "Write for 5" where the students wrote freely about their experiences of the lesson, and then engaged in peer discussion. Tony also supported student reflection by using research articles as the basis for discussion, reporting that this strategy was "clearly bringing the focus to their pedagogy and practice" (r4). This process was underpinned by a desire to foster their students' independent learning skills. Samaras (2002, p. 8) has highlighted the value of selfstudy to help her "move my students toward formulating their own theories rather than simply parroting mine". Consequently, our focus shifted from a narrow implementation of MPE, to a broader objective "to encourage our students to be reflective under the umbrella of MPE, so they think about their own experiences in class, and then they think about their experiences when they go to schools" (Richard sc2). In that way, our teacher-centred concerns about our own use of the pedagogical principles of MPE early in the semester shifted to a more learner-centred view later, when we became more conscious of the needs of our students.

Troubling dilemmas of practice

Berry (2008, p. 164) suggests collaboration in self-study "leads to being challenged about taken-for-granted assumptions and helps build knowledge of practice". Our experiences support this contention, as our focus on implementing meaningful pedagogies caused us to think about our general approaches to teaching physical education. This helped us to develop more empathy for our PSTs, and we began to relate our struggles to learn a new pedagogy with their efforts to do something similar. This also highlighted a key dilemma for us in our role as teacher educators. Each of us identified that we had a clear focus on the what and how of teaching physical education – but finding time to explore the why was a significant dilemma for us. Our experiences align with those of Richards and Ressler (2017), who also experienced difficulties giving enough time to a detailed exploration of curricular content. As Maura described it, part of our task is to "try to get them [our students] to experience what the children are experiencing...we're trying to put ourselves into children's shoes, and we're trying to put our students into children's shoes to experience it [MPE]" (sc2). This, in turn, caused us to question if our exploration of MPE was reducing the amount of originally planned physical education content we were covering. In each of our teacher education contexts, we already believed that we do not have enough contact time with our PSTs. Our concentration on the new pedagogical principles caused Maura to comment: "I'm concerned that I am way behind with content to be covered now...I am seeing benefits, but I

am struggling with not getting content covered. 18 years of doing things in a particular way is hard to change!" (r2). Richard expressed similar feelings, observing "I had this conversation with [another] colleague during the week, where we were discussing how to fit everything into our core modules" (r3). Tony summarised this dilemma for us when he commented: "the crux of the challenge coming through here is – do we sacrifice content and outcomes to ensure MPE is covered...if MPE is causing us to assess our practice, I think it's very worthwhile "(Tony, Mr2).

Significantly, through our discussions, we began to suggest solutions to this dilemma. Richard wondered, "should we trust that our students will subsequently be able to find appropriate content themselves later?" (r3). By devoting more time to discussion and reflection in our classes, we were hoping that this would compensate for the reduction in physical education content covered. Tony described this as "the movement away from overemphasising content towards the valuing of 'checking in' with the students" (r4) about their beliefs and experiences. By using pedagogical strategies to teach the features of MPE explicitly we gained a clearer understanding of our practice as teacher educators, in a similar way to the experiences of Beni et al. (2019) in a primary school PE teaching context. While we recognised significant pressures to deliver prescribed course content was evident throughout the data, we also noted a shift in our approach as we valued the opportunity to engage deeply with PSTs through the lens of MPE. As Tony concluded, "the [MPE pedagogical] principles are now influencing planning of teaching, which is a good thing, and more sustainable" (Tony, Mr2). We all agreed that incorporating more opportunities for discussion or 'checking in' time with our students enhanced the learning environment – even if that meant reducing the amount of curriculum content covered. Importantly, collaborative process directed our attention to "learning about teaching" (Loughran & Brubaker 2015, p. 278) more meaningfully.

Introducing the collaborative self-study was clearly beneficial to practice. In this particular context, the focus on MPE prompted reflection by each of the three participants individually and collectively, as we tried to plan and model effective delivery of teaching to our PSTs. The challenge of delivering content with this pedagogical approach was an issue, especially within the restrictions of the pre-existing module descriptors. The value of adapting teaching approaches was recognised through the study, but as institutional rules mandated that module plans were submitted for approval many months in advance of the academic year, there was a sense that the perceived inflexibility to adjust published modules was a barrier for us. Maura expressed the sense of conflict arising from adding the MPE pedagogy to her existing course:

I have reduced some content to allow for engagement and exploration of MPE but as the module is an approved module, as per the module descriptor approved by University marks and standards, I can't veer too much from the path! (Maura, Tr3) This prompted us to discuss how overall academic procedures within each of our universities constrained our attempts to adopt pedagogical innovations. We agree with Jess and Gray (2019, p. 152) where they argue that universities have "a key role to play as catalysts in creating and developing the context for innovation". In the context of the stringent institutional approaches to course design and module approval that we must operate within, advance planning of course changes could be necessary to accommodate the revised emphases more discreetly for module delivery in future years.

Conclusion:

The concept of MPE has been identified as a useful framework for PE teacher education practice (Fletcher et al., 2020). Our findings illustrate how the pedagogical principles underpinning MPE provided us with an overall guiding framework that influenced

our pedagogical decision-making as we each engaged with different module content. Additionally, our participation in a collaborative self-study "emphasizes the contribution of relationship, caring, and mutual support within the group while at the same time focusing on the professional development of individuals" (Brody & Hadar, 2015, p. 247). Martin and Dismuke (2015, p.5) suggest that collaboration enables "individuals to work across boundaries of their own knowledge, skills, and dispositions in dealing with the complexities and challenges of teaching". And, given the complex nature of teaching and learning, we agree that "boundaries of practice are interesting places" (Wenger-Trayner & Wenger-Trayner, 2015, p. 16). In our different contexts, this collaborative self-study helped us to articulate our individual experiences and learn from the experiences of our colleagues. By exploring these spaces, and their associated boundaries, we gained a better understanding that, despite our different teaching contexts, our professional practices were enhanced through this shared endeavour.

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