

‘Finding the Image’: Using photos to give voice to teacher educator professional learning

Reflective competencies for teacher educators include the ability to reflect on, evaluate, develop alternatives, and change one’s own teaching (Koster, Brekelmans, Korthagen, & Wubbels, 2005). Reflection is therefore an important competence in ensuring teacher educators are equipped to respond to the evolving needs, demands, and expectations of teaching and teaching about teaching (Koster et al., 2005; Loughran, 2014). Both policy makers (European Commission, Education and Training, 2013) and researchers (Loughran, 2014) recognise reflection as a key professional development activity for teacher educators to influence their practice (Darling-Hammond & McLaughlin, 2011; Korthagen & Lunenberg, 2004), and by extension teacher quality (Goodwin & Kosnick, 2013).

Reflection is therefore a mechanism that can support teacher educators in developing their capacity to learn from experiences and to integrate this learning within their pedagogical practices. For example, Jara and Maggio (2016) demonstrate how, for them, becoming a teacher educator involved a process of framing and reframing knowledge triggered by experience and interactions. Physical education teacher education (PETE) scholars have also emphasised the role of reflection in their development as teacher educators (Fernandez-Balboa, 2009; Fletcher, 2016; Richards & Ressler, 2016). Fernandez-Balboa outlines how self-reflection helped him to ‘un-blur’ his memory. He proposes self-reflection can help physical education teacher educators to ‘establish an incipient handle where to grab the essence of (our)self’ (p. 160). Both Fletcher (2016) and Richards and Ressler (2016) describe how reflection was central to helping them improve their practices as physical education teacher educators.

Schön’s (1983) writings related to ‘reflection-on-action’ and ‘reflection-in-action’ and ultimately ‘reflection-on reflection-in-action’ (Schön, 1995) provided the theoretical basis

and guide for understanding how the process of reflection might contribute to professional learning. Reflection-on-action happens after the experience, when time is taken to interrogate what happened, and its significance relative to past experience. Reflection-in-action is sometimes described as thinking on your feet. It involves looking at experiences as they happen. This type of reflection allows the learner to reframe the problem as it is occurring and new understandings are created to inform actions as the situation is unfolding. Reflection on reflection-in-action makes the implicit explicit through the use of the tangible, words or pictures, to allow one to “see” the action strategies or assumptions that occurred during reflection-in-action (Schön, 1995). Through reviewing and seeing experiences anew, the reflection on reflection-in-action process can potentially create new knowledge and awareness of professional practice by allowing us to understand what we know through what we do (Schön, 1995).

Reflection-on-action can take multiple forms, for example individual writing (Cautreels, 2003) or through discussion with critical friends (Fletcher, Ní Chróinín, & O’Sullivan, 2016). Reflective writing has been shown to support collective teacher educator professionalism (Cautreels, 2003) and to reframe the pedagogies of teacher education through analysis of student assignments (Jove, 2011). Yet, life as a teacher educator has been described as messy, busy, complex, and sometimes lonely; characterised by stress, pressure, and uncertainty (Patton & Parker, 2017). Thus, despite ample evidence of the value of reflection to professional learning, reflection is not prioritised by teacher educators (Koster, Dengerink, Korthagen, & Lunenberg, 2008; Smith, 2003). If reflection is to be embedded into this life, the use of a meaningful and efficient reflection tool is of the essence. The significance of this project lies in making reflection meaningful.

Purpose and Guiding Premises

The purpose of this research, therefore, was to explore the role of photocue reflection in the professional learning experiences of physical education teacher educators.

Specifically, the question guiding our work was: how might the use of photographs influence the reflection process, teacher educator learning, and our subsequent teacher education practices?

In the first instance, we proposed to interrogate how Schön's reflection on practice, might be supported and enhanced through a process involving both photographs and reflective writing as a regular and systematic professional development activity (Loughran, 2014). Photographs can prompt and support both reviewing and reflecting on experiences (Lapenta, 2011) as a form of reflexive analysis and have previously been used successfully in education contexts (Miles & Kaplan, 2005). Photos can act as a 'cue', a form of prompt, to aid memory and reflection with the possibility that which new insights can emerge (Pope, 2010). In this research we have adopted the term 'photocue reflection' to represent our use of written text and photos as part of the reflection process to avoid confusion with other photo-based approaches which represent specific motives and processes, such as photovoice (Wang & Burris, 1997) and photo-elicitation (Harper, 2002). We hoped using photos might provide an alternative approach to reflection on professional development experiences that moved beyond written reflection alone by giving participants the opportunity to 'show rather than 'tell' aspects of their identity that might have otherwise remained hidden' (Croghan, Griffin, Hunter, & Phoenix, 2008, p. 345) and to facilitate participants in sharing 'what they know and help them put words to their ideas and share understandings of their worlds' (Enright & O'Sullivan 2012, p. 36).

Previously, photo-based visual methodologies have been used in physical education with children (for example, Azzarito, Simon, & Marttinen, 2016; Enright & O Sullivan, 2012; Patton & Parker, 2013), teachers (Parker, Patton, & Sinclair, 2016), and pre-service teachers

(Walker, Langdon, Colquitt, & McCollum, 2017) with encouraging results. For example, Parker and colleagues (2016) found that visual methods both documented the complex change process for the teachers and also enabled teachers to discuss their learning and reflect on their practice. We anticipated that photocue reflection might support similar reflection processes for teacher educators. Conscious that photographs alone offer multiple interpretations and cannot by themselves provide a complete narrative (Lemon, 2007) we combined the use of photographs with written reflection in a visual diary (Chaplin, 2011). As Tiidenburg (2015 p. 253) explains, ‘in addition to all the meanings generated in a story told in words and those in a story told in images, there is so much more in stories told in words about images, and vice versa’.

Secondly, since to support growth and change, the professional development of teacher educators must be ‘purposefully conceptualized, thoughtfully implemented, and meaningfully employed’ (Loughran 2014, p. 10), we were interested in how the use of photographs as part of a structured reflection process might support the teacher educators within their teacher education practices. Knowing that teacher educators have a preference for informal, as opposed to formal professional development, Dengerink, Lunenberg, and Kools (2015), suggested that formal learning opportunities may be considered less impactful because of a perceived disconnect to practice. This disconnect between professional development and practice may be exasperated for physical education teacher educators who may have little opportunity for professional learning experiences that echo the practical, physical activity-based settings in which they teach. This suggests that better understanding is needed of ways teacher educators, and physical education teacher educators in particular, can be supported to translate professional learning into their teacher education practices. We contemplated whether the use of photos across sites of learning might provide a mechanism

to better link off-campus professional learning and the practices of teacher education for physical education teacher educators.

Methodology

Research Design

The professional development initiative was informed by Loughran's (2014) proposal to promote teacher educator learning by both 'experiencing' and 'articulating'. The initiative included a formal professional development camp-based physical activity experience, followed by teaching semester-based activities. As the professional learning of teacher educators was the focus of this research, we adopted a collaborative self-study of teacher education practices (S-STEP) methodological frame to study our experiences. S-STEP research focused on reflection-guided professional learning by teacher educators (Loughran, 2014; Russell, 2011) and physical education teacher educators (e.g., Fletcher & Ovens, 2015; Fletcher, 2016; Richards & Ressler, 2016) has gained traction in recent years.

We drew on LaBoskey's (2004) criteria for quality in self-study in designing this research. As a group of teacher educators, with the aim of improving our professional practice, we initiated the research focused on our own professional learning. We interacted with each other as well as with a critical friend from outside the group to gain multiple insights on our experiences in support of our learning. We drew on self-generated and group generated data including focus groups, observations, interviews and photovoice reflections to strengthen our claims. Finally, in line with LaBoskey's (2004) recommendations we present a detailed account of our experiences supported by data to allow the reader to validate our claims through deciding upon the extent to which our account was deemed trustworthy.

Participants

Participants were five physical education teacher educators from the island of Ireland (2 post-primary, 3 primary). The group came together somewhat serendipitously in a project

designed to unite teacher educators from Northern Ireland and the Republic of Ireland. Of the five, three had between 10-15 years' experience as teacher educators (Marissa, Daniella, Kevin), one had been a teacher educator for over thirty years (Melody), and the final participant had four years' experience (Peter) (pseudonyms are used here for blind review). All, except Melody, had transitioned from school teacher to teacher educator roles with few formal professional development opportunities. All the participants taught a range of content within their respective PETE programmes. Their teaching included lecturing to large groups, and classroom-based and physical activity-based lectures to smaller groups. Professional relationships existed within the group before the project began: Peter and Kevin had worked together briefly and Marissa, Melody, and Daniella had collaborated on research projects previously. Relationship building was central to our engagement in the shared professional learning activities as some members of the group had never met before the project began.

Professional Learning Experiences and Data Collection

Data collection is presented in conjunction with the overview of professional learning experiences as it was embedded in the professional learning activities. The specific focus of the professional learning was on communication. Communication was chosen as the focus as we were interested in how our professional learning with each other might influence our subsequent individual pedagogical practices with our pre-service teachers; communication was foundational to success in both instances [see Parker, Ní Chróinín, Coulter, Walsh & McFlynn (2016) for details about the content of the professional learning experience). The self-designed professional learning experiences were divided into two parts: firstly, a physical activity-based professional learning camp incorporating photocue reflection where we were in a learner role, and secondly a teaching semester-based photocue reflection process, where we were in the roles of learner-teacher educator simultaneously. We designed the professional

development with these dual experiences to promote explicit links between our professional learning experiences and the reality of our teacher education contexts.

The professional learning camp took place over three days. We selected outdoor and adventure activities because of associated communication demands (Priest & Gass, 1997). Activities included high ropes courses, team challenges, kayaking, and zip-lining. During this experience each participant used a camera to capture various moments and events each day as they completed the activities. The only prompt that we gave to ourselves was to take photos of what we individually thought to be significant and meaningful communication experiences and events during the days' activities. The process of taking photos during professional learning experiences was intended to help teacher educators 'reflect' in action to support subsequent reflection-on-action. A 'debriefing' framework post-activity promoted us 'to reflect on and communicate with other group members about their feelings, observations and experiences during an activity' (Dyson & Sutherland, 2015, p. 235). At the end of each day, we reviewed our photos together and then individually we selected photos representing what we each deemed as important experiences related to communication. The photos were printed and inserted into a photocue diary. Alongside each photo we wrote a response to the following prompts: Why did you choose this photo?; What's happening?; This photo relates to communication because.... At the conclusion of the professional learning camp, we all completed a final summative written reflection in which we reflected on our overall learning experiences. Following this, using a photo-elicitation (Harper, 2002) focus group (FG) process, in which our photo diary entries served as a "jumping off point" for discussion, we explored our learning experiences and considered implications for our teacher education practices. This focus group lasted 89 minutes and resulted in 32 pages of transcript.

In the autumn after the adventure camp experience, a second focus group was conducted via SKYPE at the beginning of the teaching semester. At this time each of us

identified what Hamilton (2008) refers to as a ‘problem of practice’ related to an aspect of communication on which we would focus in our own practice during the upcoming teaching semester. A problem of practice might be defined as a self-initiated attempt at understanding the complexities of personal teaching practices (Samaras & Freese, 2006). As such, these problems, informed by literature on teacher educator professional learning (Loughran, 2014) and communication in teaching physical education (Rink, 2020), reflected individual personal choices. Areas such as task setting, feedback, and the use of teaching cues were selected. We each then implemented our actions related to the chosen communication focus during the teaching semester in our respective institutions.

Throughout the teaching semester we reflected on a self-identified meaningful event relating to the aspect of communication previously targeted. A reflection template was created to both scaffold reflection and help us prioritise our professional learning in our busy work lives. This involved completion of a photocue reflective diary entry which included selection of a photo/image and a written response to prompts similar to the ones used at the adventure camp, but now related to our teacher education practice as well as communication: What happened?; Why did you choose this photo?; Why did you choose to write about this incident?; This incident relates to communication because....; The implications for my teacher educator practices are.... These reflections were electronically shared each fortnight. We were each observed teaching once during the semester by a non-participant observer, Eleanor. Observations were followed by an individual interview lasting approximately 45 minutes in which the value of the professional learning experiences and their influence on teacher education practices was explored. Having reviewed the fortnightly reflections of each of us beforehand, Eleanor acted as a critical friend during the interview, challenging us to make connections between our professional learning, self-identified communication focus, and our teacher actions. At the end of the teaching semester, we participated in a 2-hour

face-to-face focus group. Led by Eleanor, we reflected on our professional learning within the project and how our experiences had shaped our teacher education practices. As with all interviews, the interview was digitally recorded and transcribed verbatim. Across the six-month period total data sources included five photocue diaries from the camp experience each including 31 photos, 21 fortnightly reflections including 16 photos and five images (these were used where actual photos from lectures would not have been possible), five individual interviews, and three focus groups transcripts.

Data Analysis and Trustworthiness

Data analysis used a general inductive approach (Patton, 2014) led by, Daniella and Melody, who worked separately and together in the analysis process. Daniella familiarised herself with all data. Given the quantity and variety of data sources we decided that the data for each participant should be coded separately initially and a summary of key ideas for each was developed. The photocue diary entries completed during the professional learning camp were analysed with consideration of the title assigned to the photo, the content (what, who, where) of the photo, and the written explanation for the photo choice. For example, Kevin entitled one of his entries 'Pier jumping on my own'. In the photo Kevin is jumping off a high pier into the sea. His written entry focuses on how encouragement from peers helped him to jump. Analysis of this entry noted that the photo was activity-based, in a risk situation, and even though Kevin was making the jump alone that the support of others was significant to his completing the jump. Photos were intentionally not analysed independent of written comments. Fortnightly reflections completed during the teaching semester were also reviewed with consideration of the photo/image included and how they represented or provided context for the focus of each entry.

Independent of Daniella's coding of each individual's data, Melody read and coded all data with emphasis on recurring ideas across individual data sets. Through comparison of

coded data and discussion, the individual summaries developed by Daniella were combined and reconciled with patterns within the cross-case summaries noted by Melody. Through this process data were organised into categories reflecting the major patterns of the complete data set. The involvement of two of us in the analysis process and the triangulation of multiple data sources resulted in a detailed and thorough process of examining all data that supported trustworthiness. A member check of the findings was then completed with (names removed for review) to further strengthen trustworthiness of the findings (Lincoln & Guba, 1986).

Results

Overall, two themes were constructed to portray the role of photocue reflection in our professional learning experiences as physical education teacher educators. First, the multidimensional nature of the professional development experience was revealed. Second, the use of photocue reflection enhanced our reflective processes by supporting reflection on action (Schön, 1983). Data are presented from both camp-based and teaching semester-based photocue processes to illustrate the similarities and contrasts in our experiences of using photocue reflection in each context. Supporting data from focus groups (FG), photocue diaries (PCD), fortnightly reflections (FR), and individual interviews (II) are included to illustrate the main findings.

The multidimensional nature of professional learning (and our practice)

The process of selecting a photo to represent communication was a worthwhile and engaging part of the reflection process. Capturing a visual representation of an abstract concept, such as communication, was challenging and, in most cases, photos did not, and perhaps could not, 'show' the concepts being discussed in relation to communication. Instead photos provided a cue or prompt to explore and analyse concepts related to communication with emphasis on the process of communication in a particular context. The photos selected

and their purpose was different in the camp-based and semester-based professional learning experiences.

Two patterns were clear within the content of camp-based photocue reflections: 1) personal accomplishments through one-on-one peer support, and, 2) group-based communication experiences. One-on-one support from peers in the achievement of individual accomplishments was the focus of a number of the meaningful events in the photocue reflections. Most of these photos were of individual participants engaged in physical activity and at peak moments of fear, or challenge (see Figure 1), or success, such as travelling on a zip-line, kayaking across a harbour or on a high ropes course.

INSERT IMAGE 1 ABOUT HERE

For example, ‘I was scared to death to do this, but this shows I did it – and I was actually alive’ (Melody, PCD 1). Most of these photocue reflections emphasised how verbal feedback and encouragement from peers helped overcome a challenge they faced, such as: ‘this photo relates to communication because my teammate (Marissa) who is experienced in the area of outdoor education provided me with clear teaching points on how to improve my technique’ (Peter, PCD 3). The photos provided an opportunity to interrogate the place of communication in our experience and then to consider its significance to our professional learning through reflection. In many cases, these incidents reinforced for us an appreciation of the role of peer communication in task accomplishment and overcoming personal challenges while creating a strong group bond enhancing our effectiveness as a group.

The role of communication in group-based learning experiences was the second pattern in the photocue reflections. This may be explained by the outdoor setting of the camp-based professional development activities which naturally lend themselves to group dependence rather than any particular photo-taking related aspects. Participants valued group-based learning experiences: ‘learning in a group facilitates new learning about yourself

and allows you to learn things you could not learn alone – it's also more fun' (Daniella, PCD, final reflection). These photos were again physical activity-based but generally included groups rather than individuals (Figure 2).

INSERT IMAGE 2 ABOUT HERE

Task success or failure generally provided the starting point to explore the role of communication in each selected meaningful event. Marissa reflected on a group-based task: 'There were levels of communication and types of communication, verbal, hand signals tied to activities, safety, leadership, respect, fun, cheering with excitement – I think feelings were communicated well too' (PCD 3). These photocue reflections emphasised the place of group-based communication in team cooperation, the importance of roles within group tasks, and the significance of listening to others in the completion of team challenges. Emphasis was placed consistently on the need to communicate with all group members to ensure a shared approach and task success, such as, 'we had the detail right. Communication is all about the detail, making sure everyone is on the same page' (Daniella, PCD 5). Overall, the photocue reflection processes linked to physical activity-based experiences helped us gain a renewed appreciation of the nature of communication in groups.

The photocue reflection process during the teaching semester was very different to the camp-based process as it began with selection of a meaningful event following completion of lectures rather than taking photos during our engagement in physical activities. Standout moments of success or challenge, related to each of our pedagogical approaches and effectiveness of our practices in relation to communication; for example, our use of teaching cues, feedback, or how we set tasks, were selected as the meaningful events for analysis. The photos/images were used to represent the meaningful event in a number of ways. First, they were used to directly represent individual teacher educator's pedagogical approach, through photos of artefacts and resources. Kevin explained his choice of a particular photo for critical

reflection 1: ‘I like this picture because it captures my tools: the folder containing attendance records, readings, etc., and my watch, set up for pre-arranged countdown timers...’ (FR 1).

Some photos/images were selected to provide context for the meaningful event discussed and were not directly related to the lecture, for example:

The photo is a metaphor for how the task broke down. The bridge looks all connected and good to drive on at one end (my perspective setting the task) but the other end of the bridge is under water (the student perspective). (Daniella, FR 5)

Some photos were selected to provide supporting evidence of the effectiveness (or not) of communication, such as photos of text on a whiteboard or power point slides (Figure 3). For example, Melody included an image of an e-mail from a student explaining “I chose the photo as it represents frustration and contemplation about communication for me” (FR 3). All participants included a photo/ image for all teaching semester-based reflections. Photo content included artefacts such as worksheets, equipment or lecture slides. In essence they helped us recognise what we knew, but were often unaware of in the moment to moment of teaching.

INSERT IMAGE 3 ABOUT HERE

Meaningful events were rarely identified in the moment as the teaching semester involved us in a teacher (as well as a learner) role; this presented complications. Melody explained:

At [name of camp] we were a group of us, it was very learner-centred... We all had cameras and we found it easier to take pictures even if we took other’s pictures... I struggle with my University classes. I struggled taking pictures because I’m not about to stand up in front of my class, ‘oh, can I take a picture now?’ in the middle of something. My engagement in my own teaching directly inhibited my ability to take pictures. It violated what was important. (Final FG)

Consequently, the teaching semester did not therefore provide the same time and space for us to take photos). The taking of photos prompted a heightened attentiveness to some things in or about practice that may not have been there prior to participation in the project. (Peter, Final FG). Another challenge was the problem of taking the ‘correct’ photo. Peter shared: ‘You’re in the middle of it. When I was in the middle of the gymnastics there’s lots of things I saw and thought, “God I would love to have been able to take a photo of that”’ (Final FG). While we all we kept our cameras in our pockets as we taught, in many instances the cameras never left our pockets. We were taken up with the full-on business of teaching and did not get a moment to consider taking photos. The photos were taken after the lecture instead; yet still played an important role in the reflection process as Marissa explains:

You’re still looking for the photo... ‘what photograph can I take now?’ ‘Cos generally it was after the lesson and trying to think what happened in the lesson? I’d try and create a photograph at the end of the lesson that represented that, so it made, made me think about what had gone on a little bit more -- what I really wanted to focus my thinking on. (Final FG)

Some of the teacher educators chose to use images from the internet rather than photographs of students to illustrate the learning from meaningful events they identified. Similar to camp-based experiences the focus of many of the photocue reflections was prompted by moments of success and challenge, such as ‘the photo represents an imperfect situation in my teaching: group sizes influencing the learning that I had planned for’ (Kevin, FR 4). The difference in the teaching semester was that this success related to our individual implementation of pedagogies related to our selected area of communication. Photocue reflection was also important in helping us make connections between our professional learning experiences and our teacher education practices. It helped us focus on learning about communication in ways that increased the relevance of our professional learning: ‘It had the

biggest communication impact...should you tell people what to do or not, where are the boundaries around experiential learning?’ (Marissa, PCD 2). Through reflecting on our communication needs and processes in the camp-based experiences, our learning was translated directly into teaching semester-based practices. Kevin noted a development in his practice through engagement with a specific area of communication ‘I encourage and reward student input religiously while maintaining a realistic perspective; I am beginning to believe that this exercise in self-reflection is helping me to improve that’ (Kevin, FR 2).

Unsurprisingly, the camp- or teaching semester-based context shaped the selection of meaningful events and the emphasis of the written photocue reflections because we assumed different roles which shaped the content of the photos. In camp-based experiences the learner role was emphasised; both peer and group-based experiences were central to determining what was learned. In contrast, during the teaching semester our reflection processes were individually directed and analysed – it was only through discussing our reflections with the other teacher educators in a final focus group that our learning was discussed with others. In both contexts, the use of photos still provided a valuable cue for reflection.

Photos enhanced reflection

Photo taking was focused on the concept of communication and was a directed rather than indiscriminate process. Though not always easy, the use of photocue reflection enhanced reflective processes in camp-based and teaching semester-based professional learning experiences in ways that influenced our teacher education practices. The photos provided a prompt for us to interrogate both our experiences and learning during the camp-based and teaching semester-based activities. The photos were used to provide direct evidence of, or in some cases, set the context for a meaningful event. Some of the photos selected were self-portraits; others were of the other participants or the group, this was not important. What mattered was how the photo represented a particularly significant moment or experience that

could be or came to be identified as such through reflection-on-reflection-in-action. This allowed us to subsequently gain insight on our own understandings about communication.

Photos were an integral part of the reflection process in a number of ways in camp-based learning experiences. From a fundamental perspective, the photos served as a ‘a prop or a prompt to focus’ (Melody, Final FG). In that sense the photos provided a record that helped us reflect on all we had experienced each day, to remind us of key moments during our professional learning activities and to recall why we had taken specific photos. By tracking our own physical activity-based learning experiences the photos supported the identification of meaningful events in camp-based professional learning experiences. Sometimes the photo was selected first and the meaningful event was built around the stand-out moment represented. In other cases, participants were clear on the moment they wanted to write about and went in search of a representative photo (see Figure 4). Marissa explains:

I remember in [name of camp] even though we were taking pictures left, right and centre, it was only when we looked up the lot of it afterwards and we were able to think “yeah, that’s a good photo, for me today the meaningful event was ... and that photo represents it”. (Final FG)

INSERT FIGURE 4 ABOUT HERE

For Peter using the photos was central to identifying the significance of communication in the physical activity-based experiences, “...it was only after it when I looked at the photos where I could even see a link to communication. So it was the thought process after” (Peter, Final FG). For him the photos provided a frame for reflection on experiences and a starting point to analyse and write about learning experiences in relation to communication.

The process of sharing and selecting photos was enjoyable and valued as part of the professional learning camp experience. As well as recording the day's learning the process of sorting and selecting photos also extended learning in new directions. For example, the opportunity to share and discuss photos selections resulted in rich engagement with fellow participants in relation to the choices made. On a few occasions, colleagues were asked for advice on the representativeness of photos which involved an articulation of rationale for the original choice. This back-and-forth engagement about photo choices helped to focus on one another's thinking in ways that were evident in the clarity of reflections and the connections made between learning and teacher education practices. Overall, we found the photocue reflection process in camp-based professional learning experiences to be challenging, but worthwhile in providing a structure that helped to focus attention to our learning and a process that helped us reflect on our experiences in meaningful ways.

The photocue reflection process in the teaching semester was different as a teacher (rather than learner) role was at the forefront for us. The processes of reflection, taking and selecting photos as well as writing about the meaningful events identified were now completed alone. The reflective process became artistic (Pithouse-Morgan, Pillay, & Mitchell, 2019) rather than formal and systematic, as without the aid of our colleagues, we generated images or used online images after lectures to represent key moments. Daniella found the process of sourcing a suitable representative image beneficial in clarifying her thinking: "Finding the image was really great in terms of forcing me or helping me focus and clearly articulate exactly the point I was trying to make as opposed to waffling around it" (Final FG).

The use of photocue reflection during the teaching semester helped us make connections to how our pedagogical practices might be developed and to translate learning from the camp-based experiences in ways that influenced pedagogical approaches to enhance

student learning. Melody explained, “what I found it did for me is it made me think about what I was doing the entire time” (Final FG). Articulation of reasons for the choice of photo/image and writing about the meaningful event helped us further clarify our thinking, to situate current understanding within past experiences, and distil our learning into concrete teacher educator actions, such as, “I think the most useful thing was trying to find a photo that matched what I was thinking and then using the photo to consider how that might shape what I do next” (Daniella, Final FG). See Figure 5.

INSERT FIGURE 5 ABOUT HERE

During camp-based experiences the process of taking photos during activities promoted an attention to our experiences that demanded both a noticing and evaluation of our experiences which helped us to then subsequently reflect-on-action. In this situation we often selected and wrote about activity-based photos. The challenges faced in taking photos during the teaching semester indicate that we did not succeed in creating time or space to give conscious attention to aspects of our communication *during* teaching. It was only after the fact that we found time to reflect-on our reflection-in-action and then identified what was significant to include in our reflections. Photocue reflection processes were therefore valuable as they provided a structure that helped to sustain attention to the identified problem of practice in ways that reinforced and extended the learning of participants. Daniella explains:

But isn't it interesting that from [name of camp] it was clear as day that this was [important], of course we have to do this... So the professional learning would have gone out the window... if it had stopped in [name of camp], it would have been a memory of 'oh, we had a great time' or 'ah, they were lovely'. But keeping going with the process and filling in the templates and actually trying to translate the ideas and thinking about them has definitely added value to my teaching. But also consolidated or extended the actual learning experience too. (II)

Overall, how we used the photos and images prompted an attention to on-going reflection and a noticing and evaluation of experiences that would not otherwise have been sustained.

Discussion and Conclusions

Framed by professional learning, this research explored how the use of photographs influenced teacher educator reflection, learning, and their subsequent teacher education practices. Our overall finding highlights the value of photos in adding an imaginative new dimension to reflection processes by providing a mechanism for reflection on what we would call, reflection-in-practice, allowing us to become better aware of what we were doing in the moments of learning about and teaching about teaching. Using photocue reflection served to scaffold and enhance the professional development experiences of teacher educators (Loughran, 2014) by acting as a prop, opening up conversations, and focusing attention to the role of communication for both learner and teacher across sites of learning. While the use of photos revealed the multidimensional nature of professional learning for physical education teacher educators and enhanced reflective processes, it was the group nature of the professional learning activities that was most important in facilitating these effects.

The design of the professional learning activities mattered to the outcomes. From the outset, we recognised the value of being part of a group as more effective than learning alone (Patton & Parker, 2017). Though we know that teacher educators generally prefer informal learning opportunities, we were conscious that, in reality, teacher educators have few opportunities to interact with colleagues and that sharing of practices can be hampered by isolation (Hadar & Brody, 2010). In recognition that personal and professional growth often requires moving out of our comfort zones, we anticipated benefits for our own professional learning through sharing and discussion of our teacher education practices. Multiple interactions with peers were built into the professional learning activities to promote these conversations as part of a deliberate process of reflection on reflection-in-action (Schön,

1995). The collective use of photographs and images helped to prioritise reflection (Koster, et al., 2008) as part of the professional learning in ways that kindled conversations about our teaching practices, opening up new possibilities and ways of thinking, that influenced our teacher education practices (Darling-Hammond & McLaughlin, 2011).

Teacher educators can struggle to identify the value of professional learning experiences to their everyday practice (Dengerink et al., 2015). We therefore aimed to promote professional learning to directly influence our actions of teacher education. Using the photos and images as part of a structured reflection process allowed us to observe our teaching actions (Schön, 1995), reflection on those actions, evaluate their effectiveness, and develop alternatives that ultimately resulted in changes to the communication aspects of our teaching (Koster et al., 2005). Embedding reflection using photos systematically within the professional learning activities in both camp and teaching settings ensured that we sustained our engagement with the processes of professional learning, even when isolated within our own individual teacher education contexts.

The focus of the professional learning activities in this research was on communication skills. Using photos provided a good match for the focus across settings and teacher/ learner roles. In camp-based experiences, personal accomplishments and group-based communication experiences were the core of photos, selected because of the role of communication in task completion (or failure), incorporating both an appreciation of as well as insight into the role of communication. Photos and images from the teaching-based semester were more diverse, reflecting individual contexts, courses, and communication emphases. More often, these photos referenced gaps and stumbling blocks in teacher educator communication apparent from student misunderstandings and feedback.

Loughran (2014) indicates that ‘the notion of professional development of teacher educators has begun to emerge as a touchstone for not only what it means to become a

teacher educator, but also to learn as a teacher educator” (p. 1). In that sense, the value of designing professional learning experiences for teacher educators that combined both a learner and a teacher role was paramount. We learned when we engaged in the planned learning activities. The diversity of our photos and topics reflect the multidimensional nature of our professional learning. Importantly, it is clear that we continued to learn in our subsequent teaching because of the continuation of the systematic, scaffolded photocue reflection on reflection-in-action process. Photocue reflection facilitated an opportunity to consider engagement from a learner perspective that provided insight related to communication that was different from, and we suggest not possible in, a teacher role alone. Similar to Parker et al. (2016), in this research, visual methods enabled us to observe and then discuss our own learning and reflect on our practice. As photos often included more than one person, subsequent group-based reflection conversations often broadened into a wider discussion around our learning and the possible implications for future practice. Identification of aspects for future practice then became our focus as we approached the task of reflection with open mindedness, whole-heartedness and responsibility (Loughran, 2010).

Photocue reflection provided an unambiguous frame for us to interrogate our professional development experiences in ways that promoted learning about communication as well as influencing our approaches to communication. Using photos and images may be one way of supporting teacher educators to engage systematically in reflection as professional learning (Koster et al., 2008; Smith, 2003) in a number of ways. First, the use of photos to describe and reflect on learning experiences within the camp- and teaching semester-based professional learning experiences supported both reviewing and reflecting on experiences (Lapenta, 2011) and hence our processes of reflection-on-action (Schön, 1983). The use of photos and images prompted us to step back from activity and to engage in *reflective observation, or reflection on reflection-in-action*. The reflective process not only led to

group processes and learning, but led us to become better at and more conscious of how we were reflecting in-action and its outcomes for our practice. Second, a specific focus for reflection using photos was important in focusing and sustaining attention to communication practices. Photos facilitated new ways seeing, or translating our implicit practices to the explicit, and extended learning about communication in ways that influenced our practice as teacher educators. Third, photocue reflection provided a common focus on communication across camp and teaching semester-based settings that helped to frame and enhance our learning. Extending photocue reflection explicitly into teacher education contexts ensured an attention to the application of professional learning from camp-based experiences. In this way photocue reflection provided a framework for professional learning across sites that increased the relevance of professional development activities by making connections between teacher educator professional learning and their teaching in ways that influenced teacher education pedagogies and practices (Kools, 2015; Schön, 1995). This finding provides insight on how photocue reflection can help address the problem of relevance of professional learning (Dengerink et al., 2015) by connecting learning across professional learning sites and influencing teacher education practices.

Wolfenden and Buckler (2013) found that photographs gave agency to their teacher participants and enabled a discourse with the teacher as learner through sharing their experiences based on images that represent their reality. Similarly, the use of photos and prompts related to our learning in camp resulted in our identifying strongly as learners. It was much easier for us to take photos and identify learning in a participant role in camp-based activities. Given that we were together as a group, we often took photos of each other and photos that included others. This naturally led to conversation based on shared experience. Taking photos during the teaching semester was much more challenging and could be considered a limitation. In the first instance, there were difficulties around who could be

included in a photo, and questions around getting others to take photos that captured the ‘right’ shot on our behalf. This again highlighted the solo, often isolated role of the teacher educator (Hadar & Brody, 2010). In addition, being a teacher educator is a busy multi-faceted role that did not allow for ‘sightseeing with a camera’. More often than not, the camera stayed in pocket for the full teaching period. We found that it was only subsequent to the experience, through reflection on reflection-in-action (Schön, 1995) that prompted a relooking related to communication from different perspectives to identify meaningful moments. Despite the difficulties at times in both taking photos and capturing suitable representative images, in being able to notice a particular moment in the moment to the extent that it prompted us to take a photo, photos and images were valuable sources in supporting the promotion of attention to experiences and teacher educator reflection in both contexts. The process was clearly a combination of reflection-in-action, being able to recognise a situation as pedagogically noticeable for whatever reason or literary/artistic imagination (e.g., using imagination to identify how a moment could be captured to represent a metaphor of a pedagogical situation), and reflection-on-action.

In a world where meaningful and user-friendly teacher educator professional development is not only necessary but desired, the value of photocue reflection to support teacher educator reflection processes presents a viable option. While there are challenges to using photos as part of that process, the opportunities are greater. The scaffolding of reflection using photocue, particularly with colleagues, provides a way to help teacher educators to prioritise reflection in their busy work lives in ways that enhance professional learning and promote a direct influence on teacher educator pedagogical approaches with pre-service teachers.

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