# "Getting the Tip of the Pen on the Paper": How the Spectrum of Teaching Styles Narrows the Gap Between the Hope and the Happening

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Purpose: In response to the limitations with what has been termed a "traditional" Physical Education method, in the last decade Models-Based Practice (MBP) has emerged as an alternative. However, these limitations were recognized by Mosston in 1966 and from which The Spectrum of Teaching Styles (The Spectrum) was presented as a means toward a more obvious educative focus in Physical Education. We propose that The Spectrum provides a bridge between the hope and happening of MBP suggested by Casey and colleagues. Method: Using a qualitative narrative approach, we construct a fictional discussion between two academics (one from a country with centralized, mandated curriculum and one without) through which to navigate the mythical island of quality Physical Education in order to analytically frame The Spectrum and the "happening" of teacher's implementation of MBP. Use of a fictional dialogue as a qualitative instrument enabled us to be provocative through the posing of questions in a novel fashion. Results: We suggest adopting a nonversus perspective reorients the view of model fidelity and, The Spectrum provides the "how" or micropedagogies to close the gap between the "hope" and the "happening." Conclusion: This conversation is timely considering reservations about the successfulness of "second-generation" MBP exist in the literature and evidence of the continuation of the historically common Physical Education method despite its well-recognized limitations.

Keywords: pedagogy, narrative inquiry, qualitative methodology

A prevalent argument in the Physical Education (PE) literature is that the historically widespread, often called traditional method, to PE of "one-size-fits-all, sport technique-based, multi-activity form" (Kirk, 2013, p. 974), needs to be replaced if the future of PE is to have educative relevance (Crum, 1993; Kirk, 2010; Locke, 1992; Metzler, 2011). In response, over the last decade Models-Based Practice (MBP) emerged as a proposed alternative to address the recognized educative deficiencies to student learning, content matter, pedagogy, and programming of the traditional PE method. However, we suggest that these limitations and proposed "new directions" are not unfamiliar. Specifically, Mosston (1966) recognized the same needs from which The Spectrum was presented as a means toward a more obvious educative focus in PE. A particular focus of Mosston (1966) was questioning whether teaching can be independent of teacher idiosyncrasies, which also seems to be a focus of MBP advocacy when tenets of models are asserted. For example, some (Casey, 2014; Landi et al., 2016; Pill et al., 2017) have highlighted the confusion for teachers understanding and implementing MBP (or individual models), questioning model fidelity and seeing evidence of change before they would buy into the change (Casey, 2014).

Recent MBP lists of models do not include The Spectrum, and authors of such lists have never explained why. We suggest that it would be helpful to include The Spectrum in discussions regarding the implementation of MBP to help them fly further. The aim of this qualitative investigation, using a narrative approach, is to draw

attention to a dislocation between The Spectrum as a pedagogical model, its understanding and application by practitioners and researchers, and absence in much of the contemporary discourse on MBP in PE. To achieve this, we address two questions: (a) Are MBP's "great white elephants" or "great white hopes" (Casey, 2014)? and (b) To what extent can The Spectrum offer an opportunity to close the gap between the hope and the happening of MBP (Casey et al., 2020)? We argue The Spectrum can play a role in closing the gap between the hope and the happening (Casey et al., 2020) of MBP by addressing Casey et al. (2020) concern regarding confusion with terminology and application of MBP. Casey (2014) pondered if we do not find attainable alternatives to move practice forward then MBP will become white elephants of our own making. Casey (2014) seemed to acknowledge interpretative pragmatics (Pill & Stolz, 2017), suggesting teachers will either make a model fit their context or not use them at all. This "all or nothing" perspective was noted (a "versus approach") and Casey et al. (2020) suggested the need to move away from a "for or against" discussion. Furthermore, this "versus approach" is the view that the "doing" of a model has become fixed and there is little acceptance of maneuvering for teachers or students from the textbook example. Similarly, Casey et al. (2020) "hope" is that teachers could "take some of the good stuff associated with models and apply it in a different way and, at the same time, take some of the critical points raised toward models into consideration" (Casey et al., 2020, p. 2). Further to this, we suggest The Spectrum can assist in MBP "flying further" than it currently does. Relevant to the qualitative analysis we present in this paper is the need for quality PE (QPE) in establishing educational substance and relevance (United National Educational, Scientific and Cultural Organization [UNESCO],

2015), an ongoing request since the 1960s. We use Penney et al.'s (2009) definition of QPE as being the intersection of curriculum, pedagogy, and assessment.

More specifically, the debate is why The Spectrum is not discussed in MBP and can it be a bridge between Casey et al. (2020) "hope" and "happening?" We do this through drawing on our experience of typical teacher conversations that occur around The Spectrum globally and its use with MBP for PE more generally. During the conversation we return frequently to question why and how The Spectrum can assist MBP through its emphasis on teacher professional judgment toward instructional decision making as a pedagogical platform for PE (Pill & Rankin, 2020). As a result, this paper captures and recreates key elements of those conversations to engage readers in the ideas presented through the narrative approach. Furthermore, with the view of being deliberately provocative to generate further discussion on MBP in PE and the distance between the idea of MBP and its "happening" in schools (Casey et al., 2020).

In writing this analytical argument, we hope that it is taken in the spirit of academic debate in attempting to help teacher's make MBP "fly further," and thus, bringing the "hope" and "happening" closer. This paper is not a critique of MBP, nor an argument that The Spectrum is more favorable than other models as this would be in contradiction of The Spectrum's "nonversus" approach to teaching (Mosston & Ashworth, 2008). Furthermore, we are cognizant of Landi et al. (2016) warning against the dangers of academic gatekeeping in negatively impacting knowledge production, dissemination, and utilization when ideas are perceived as an attack, and not a discussion. Therefore, our position in this article is that some (Casey, 2014; Casey et al., 2020) asked the question and we are trying to answer.

# Pedagogy and Curriculum; The Chicken or the Egg, or Are We on the Same Page?

In entering a curriculum and pedagogy debate, we are mindful that definitions of pedagogy and curriculum are universally not the same. For example, when considering pedagogical models in enacting curricula, Haerens et al. (2011) highlighted the "interdependence and irreducibility of learning, teaching, subject matter and context" (Rovegno, 2006, p. 324), where it may be suggested this is "integrated" in the idea of MBP. We agree with such a view since pedagogical models represent long-term frameworks and the teaching styles toward the "way" tasks are presented to students. Casey and Kirk (2021) hold a similar definition and preference for the term pedagogical model over the terms curriculum and instructional models arguing "pedagogy refers to the interdependent and interacting features of curriculum, teaching, learning and assessment, rather than the words curriculum and instruction which refer to aspects of the pedagogical process" (p. 19). However, whilst curriculum, pedagogy and assessment are not the same, they are intertwined (Penney et al., 2009). In Australia, for example, curriculum is set by governing bodies nationally (i.e., the Australian Curriculum, Assessment and Reporting Authority) and regionally (i.e., state or territory bodies such as The Queensland Curriculum and Assessment Authority), where pedagogy is decided by teachers based on the situated and contextual planned and enacted curriculum. This concept of pedagogy draws similarities to Mosston and Ashworth (2008) when they describe the pedagogical unit as "objectives of an episode affect the teaching behavior, which in turn influences the interaction with the learning behaviour as its interaction culminates in the particular outcomes, outcomes in subject matter and in behavior" (p. 15). Meaning

"content knowledge guides what teachers teach. Pedagogical knowledge guides how teachers teach content" (Mosston & Ashworth, 2008, p. 317). Some may see similarities here with Shulman (1987) concept of pedagogical content knowledge and teacher mastery.

Landi et al. (2016) suggested when referring to MBP "there is not clear agreement in the field about what a model is, or what may constitute MBP" (p. 401), and perhaps this is why The Spectrum misses out on being listed in contemporary assemblages of MBP. For instance, Pill et al. (2017) highlighted this potential confusion, contending Teaching Games for Understanding (TGfU) is both a tactical pedagogical (instructional) model to some, and a thematic curriculum model of game categories by others. Similarly, the Sport Education Model (SEM) is a curriculum model which the pedagogical model of TGfU can be used to deliver the game competency objective, whereas Metzler (2011) positioned SEM as an instructional model alongside Tactical models like TGfU.

For the purpose of debate, we construct the position that pedagogical models do not decide the curriculum or the "what" is taught, only the potential "way" or the "how" to teach. Curriculum (or subject matter) is the knowledge, skills, content taught, learning objectives, and, in the authors situation, often set by a curriculum authority established by the government. From this perspective curriculum is then the "what" to teach. We acknowledge that this view of curriculum and pedagogy distinction is not shared by all. However, when this view is adopted, pedagogy is the "how" of implementing the curriculum (the "what" to teach) and not the creator of the curriculum.

In countries without a centralized curriculum, we suggest that MBP has the potential to become both the curriculum (the "what" to teach) and the pedagogy (the "how" to teach), and the potential also exists where pedagogical content knowledge is low. This last point is highlighted by Quay and Peters (2008) who suggested the use of multiple models for Australian nonspecialist primary (i.e., elementary) school teachers, who may lack content knowledge, as it may assist the generalist primary school teachers lacking confidence and training to teach PE. This dual nature of MBP's being viewed as both curriculum and the pedagogy may be contributing to Casey et al. (2014) questions regarding them being great white elephants as MBP may constrain what is taught and how it is taught and leave curriculum to the idiosyncrasy of the teacher's lacking pedagogical content knowledge for QPE. Similarly, the dualists view of MBP being both curriculum and pedagogy, may limit their use in countries with mandated curriculum (Curtner-Smith et al., 2008). Based on the desire to have diversity in PE, the acronym MBP is frequently used as "an adjective that describes practice in physical education" (Casey et al., 2020, p. 4) and does not represent single or multiple models.

#### A Brief Review of the Spectrum

The Spectrum was introduced in 1966 by Muska Mosston in "Teaching Physical Education" and has maintained continued relevance in PE during the 50 years since its release (Hewitt et al., 2020). (For detailed descriptions of the 11 styles please read further here https://spectrumofteachingstyles.org/.)

The central premise of this compendium of pedagogical approaches (Ashworth, 2020) is that teaching behavior is a chain of decision making from "preimplementation," to "implementation," and then "postimpact" for a given teaching episode where choices are made by either the teacher or student(s) (Mosston &

Ashworth, 2008). Here, we see similarity with more recent descriptions of what is now known as MBP.

In The Spectrum model, teaching styles are characterized by who is making the decisions (i.e., by the teacher, student or both), when these are being made, what they are being made about, and the intent of those making them (Mosston & Ashworth, 2008). When teaching is viewed this way, different teaching styles can be identified (Mosston, 1966). Based on this premise of different teaching styles. The Spectrum consists of 11 distinct teaching styles, called landmark styles, representing two cognitive capacities: the capacity for "reproduction" and "production." Meaning that, understanding who, what, when, where, why, and how information, knowledge or movement patterns are recalled or replicated (reproduction), created, or discovered (production) (Mosston & Ashworth, 2008), enables categorization of the 11 styles into two groups. These styles are presented in a nonversus perspective suggesting that all styles have utility in student learning. A versus perspective occurs when ideas are played off against each other and teachers are asked to abandon ideas (Ashworth, 2020), leading the teacher to applying theories according to their personal understanding. This behavior contributes to "an idiosyncratic approach to the implementation of pedagogical theories" (Mosston & Ashworth, 2008, p. 3); resulting in educational theories failing to realize their full potential. The styles are laid out on a continuum from high teacher decision making, with progress along the continuum being the release of one aspect of the decision making to the students with each determination of a teaching style.

Although the Spectrum is a widely used framework internationally and influencing the idea of QPE teaching globally, ambiguity, complexities, and a lack of clarity about the approach persist, as does a coherence between mobility and capability for progression along the Spectrum (Hewitt et al., 2020). Given The Spectrum's ability to describe teaching styles in detail, and its longevity and persistence as a pedagogical model influencing PE in teacher preparation and in-service (SueSee, 2020), surprisingly, mention and advocacy of The Spectrum in MBP is lacking.

## "Why" MBP and Matching Teaching Styles to Curriculum Expectations

Metzler's (2005) seminal work outlines seven versions of MBP, but excludes others such as adventure-based learning and healthrelated models (Pill et al., 2017), while Kirk (2013) suggested Physical Literacy be developed into a MBP. Earlier, we mentioned many MBP's were conceived to address the limitations of the field or to solve a problem with the educative purpose or value of PE. Kirk (2013) suggested that MBP provide a way of overcoming the limitations of the traditional approach to PE by addressing some of the arguments regarding PE's educational value by "limiting the range of learning outcomes, subject matter and teaching strategies ... "(p. 973) to reduce diverse and at times competing outcomes. It is recognized in the literature that achieving aims, whether stated or mandated, is a challenge and teachers may struggle to match pedagogies with the aims, objectives, or standards statements in curriculum documents (SueSee & Barker, 2018; Syrmpas et al., 2017; Thorburn & Collins, 2003). A prescribed curriculum framework constrains teachers in terms of content and pedagogies they can use (Curtner-Smith et al., 2008). Furthermore, department or school leaders and teachers may be expected or feel pressured to focus on delivering the curriculum (Curtner-Smith et al., 2008)

instead of what they "feel" or "believe" is needed in the school program.

It has been suggested that MBP has not really taken hold in Australian PE (Pill & Stolz, 2017; Pill et al., 2017). However, does this problem arise in countries where no mandated curriculum exists? Herein lies a question that needs to be answered with regard to why MBP are either the great white hope or the great white elephant (Casey, 2014). Unlike situations where there is a mandated curriculum, if teachers do not know "what" (curriculum: the content) they are to teach (outcomes: student achievement), then judgment regarding what is right or wrong to teach is unclear. If only one model is used by a teacher, then some subject matter may not fit, as no single model can achieve all objectives or curriculum outcomes (SueSee, 2020).

Casey (2014) questioned whether teachers were unable or unwilling to implement MBP as the creator's intended and a watering down or dilution may result (Curtner-Smith et al., 2008). Although, it may be that teacher decisions about how to teach are more likely to be ideological than empirically or scholarly informed (Green, 2000). Therefore, implementation of MBP's are likely to be what Pill and Stolz (2017) described as interpretative pragmatics, as PE teachers are theory appliers not theory generators and thus, they do not see the need to maintain fidelity to all tenets of a model (Stolz & Pill, 2016a, 2016b).

#### Method

Similar to previous investigations (Alder et al., 2016; Jones, 2007; Stolz & Pill, 2016a), a qualitative method using an imagined dialogue is constructed between a PE university academic from a country which does not have centralized, mandated curriculum, and an academic who originates from a country that does. We create a fictional narrative to draw attention to an important debate in the PE literature advocating for MBP. Therefore, offering new insights where none exist previously as a "space" to critically and theoretically interrogate elements of understanding of The Spectrum and MBP by teachers. This "space" is created through the fictional narrative (Alder et al., 2016). Using fictional narrative as a qualitative instrument (Oliver, 1998), we firstly illuminate the challenge of deliberate task design and assist in the understanding of challenges teachers face understanding MBP whether they have a centralized or noncentralized curriculum. Thus, we address Oliver's (1998) suggestion that, "if we hope to improve the quality of physical education in public schools and universities, we need to further understand the experiences of students and teachers" (p. 247). We do this by interrogating our experience of working with teachers and preservice teachers (who are covered by Oliver's suggestion), who work in the context of a centralized curriculum, and the authors imagining the challenges of teaching when we are not told what to teach (i.e., noncentralized curriculum). We acknowledge that these are "our voices" and our versions of others stories, designed to illuminate the challenges teachers face.

We depart from classic forms of qualitative representation of theoretical and conceptual investigation to produce a more "self-conscious" investigation using fictional dialogue to create a reflexive conversation (Alder et al., 2016). The use of fictional narratives to investigate conceptual debates and how educational issues can be brought to life qualitatively (i.e., narrative analysis), connects strongly with meaning making from storytelling (Connelly & Clandinin, 1990; Oliver, 1998; Stolz & Pill, 2016a). Oliver (1998, p. 244) explained:

... Because people give meaning to their lives through the stories they tell, it seems appropriate for those who study human experience to use a research methodology that connects with how people construct meaning of life experience [ ... ] narrative analysis is such a methodology.

Informed by previous works (Armour, 2006; Dowling, 2012; Stolz & Pill, 2016a), the adopted approach therefore provides an entrance point (Oliver, 1998) "to both contextualize the problem and to intentionally provoke argument about the acceptance of models-based practice in PE" (Stolz & Pill, 2016a, p. 4), in a manner that resonates with readers' sense of being true or real. The narrative configuration facilitates explanation, meaning, and insight through its components: setting, characters, and plot (Oliver, 1998). The narrative exists of five sections: The characters, Setting the scene: Contextualizing the problem, Conceptual confusion, Interpretative pragmatics: from theory into practice, and Interrogating assumptions of competing perspectives: what is "good" teaching? Whereby, the qualitative "validity" of the narrative will be determined by the reader being able to answer:

- · What is learned from the text?
- · Are the characters believable?
- Are there lessons to be learned from the text for my own life?
- Is the situation plausible?
- Where does the author fit in the formation of the text?
- What other interpretations exist?
- Has the text enabled me to reflect on my own life and work? (Tierney, 1993)

To ensure trustworthiness and believability the authors used the process of peer debriefing which allowed us to refine the dialogue and look for the meaning, knowledge gaps, and authenticity. This process involved frequent discussions and reflexivity around the construction of the used dialogue.

### An Imagined Dialogue Regarding the Spectrum and MBP—Limitations and Possibilities

#### The Fictitious Characters

The characters are a university lecturer (Daryl) from a country with centralized, mandated curriculum, and a university lecturer (Laurie) from a country with noncentralized curriculum, at a PE conference.

#### Setting the Scene: Contextualizing the Problem

While being open to learning about a new pedagogical model, Laurie has heard many promises about pedagogical models before, which sometimes seem to be driven by someone promoting their research interest. The models often appear like a lot of work, and there is little change in outcomes or support required for success (Pill, 2012). Daryl is interested to know more to become a "better" teacher educator, but believes most academics push a "way" to teach PE, while PE teachers work from an everyday reality (Green, 2000) and interpretative pragmatics (Pill & Stolz, 2017). Laurie is intrigued and keen to talk about teaching styles to meet different outcomes.

#### Conceptual Confusion

Daryl: You mentioned that you use the SEM (Siedentop, 1994) and Teaching Personal and Social Responsibility (Hellison, 1995)

models a lot. Is that what your curriculum document says you must use?

Laurie: Yes and no, Daryl. We have things like "Stage 4 Level 1—Exhibits proper etiquette, respect for others and teamwork while engaging in physical activity and/or social dance" (SHAPE America, 2013, p. 37), which SEM can provide a way of achieving, but its use is not mandated as we have a decentralized education system (Ennis, 2014.

Daryl: That's a little different to my experience. I work in a system where there is National Curriculum which gives the teachers learning objectives regarding content from Personal, Social, and Community Health for Health Education, Movement and Physical Activity for PE (Australian Curriculum and Assessment Authority [ACARA], 2016). It was designed so that there was portability of educational standards across the nation—people move states, apparently! So why do you use the SEM and Teaching Personal and Social Responsibility models if you don't have to and you do have curriculum standards—even if they are not compulsory?

Laurie: By using a model like SEM or Teaching Personal and Social Responsibility, I know what to teach and how to teach a local curriculum (Jewett et al., 1995).

Daryl: So, because of a lack of uniformity and consistency across context (Jewett & Bain, 1985) you need to use a model?

Laurie: Kind of.

Daryl: What do you mean by, "kind of?" So, in one way you are creating or mandating your own curriculum via the model? How does that go?

Laurie: I guess I am, otherwise there wouldn't be much to follow. The SEM is beneficial for diverse learning opportunities (Hastie et al., 2011), supporting motor skill and tactical knowledge development (Browne et al., 2004), personal and social development and autonomy (Ennis, 1999; Sinelnikov et al., 2007), positive student attitudes (Hastie & Sinelnikov, 2006), and social values, such as team affiliation and student leadership (Ennis, 1999; MacPhail et al., 2008). However, for some of the things you mentioned such as personal, social and community health, I would think I'd have to modify it. I've had colleagues who have suggested students didn't value the roles and responsibilities (McMahon & Macphail, 2007).

Daryl: By modify do you mean leave out?

Laurie: Yes, or not emphasize some parts of the model as much. Elements that are not assessed, like the sport literate objective, or role responsibility feature, so it doesn't matter to the students, or they don't think the role is important (McMahon & Macphail, 2007).

Daryl: Let me see if I understand this. You chose a model because there's no one telling you what to do, but some students don't value all components of the model, so you leave some parts out? The curriculum is set where I am from, and I must decide when I'm going to teach aspects of it, you know, sequence it, and how I'm going to teach it.

Laurie: So, could you use the SEM?

Daryl: Well yes depending on the aspect of the student achievement standard statement that I am focused on. Because I work under a required curriculum the student learning outcomes as lesson objectives (the "what" I'm assessing) is decided, in terms of described student achievement standards, and then there are content elaborations providing descriptions as examples of content commensurate with the student achievement standards. My role is deciding "how" (the pedagogy) I am going to create a learning experience to meet the objective of developing student ability to

demonstrate achievement of the standard. For example, if I had to address: "Exploring and performing the duties and responsibilities of different roles for a range of physical activities" (Australian Curriculum for Health and Physical Education [ACHPE], 2016, p. 40) the SEM might be great. However, if I was developing the ability for students to show "traveling, marking, and intercepting to achieve and retain possession" (ACARA, 2016, p. 48) the SEM may not be as relevant, or I might use a hybrid of the SEM where the focus is on the competency objective of the SEM model.

Laurie: Huh, that's ironic. I have no centralized curriculum and I leave parts of the model out, and you have a centralized curriculum and you would hybridize the model?

Daryl: Teachers that use models seem to modify them (Casey et al., 2020; Pill & Stolz, 2017; Stolz & Pill, 2014). Listening to you I get the impression you use a model to know what (curriculum) to teach and a little of how to teach. Whereas, I know what to teach (centralized curriculum) and I just choose a model (or teaching style) to know how to teach it. In your case you modify the model because the students don't value all of it, and I leave parts out because I think that one model can't meet all the needs of the multidimensional curriculum document I have.

Laurie: Yeah, I leave parts out and don't retain fidelity and I feel I am failing the model or watering it down (Curtner-Smith et al., 2008), doing a "café" version with a few of the model tenets but pretty much my normal approach (O'Leary, 2016), but in doing so I feel I am addressing the needs of my students. However, you "do" the model 100% and you feel you may not be meeting all students' needs! So, what do you do?

Daryl: Maybe I view MBP as a toolbox from which to pick a tool to meet an objective (Casey et al., 2020; Mosston & Ashworth, 2008; SueSee & Pill, 2018) rather than having to use the entire toolbox—all of the model. If the toolbox (the model) has more tools than needed to meet the objectives I plan preimplementation, then why use all the tools? At the same time, a tradesman would not throw out all their other tools as they meet other objectives at other times. That's a little how The Spectrum views teaching styles—one style is not better than another, referred to as a nonversus approach. Teaching styles (i.e., tools) are of value to meet an objective and teachers need to know how to shift or when to use the tool—the teaching style, as well as how to use it.

Laurie: So, I shouldn't feel bad about leaving parts out or "watering down" some MBP's? I think teachers do this all the time (Stolz & Pill, 2016a).

Daryl: If you are meeting the objectives you plan preimplementation at teaching impact through the chosen teaching style, I would say that seems appropriate.

Laurie: So, if the Spectrum provides that type of reflection at post impact of the teaching episode, why don't I read about The Spectrum in discussions around MBP?

Daryl: It is a way for teachers to reflect on teaching, and which allows them to deliberately plan to use a teaching style to create a learning experience that meets an objective of a teaching episode. In that way, The Spectrum discusses teaching as a series of episodes in a lesson (SueSee, 2020).

Laurie: So, does it replace MBP's?

Daryl: Not at all Laurie! My guess is that teachers who are using MBP are using an array of teaching styles to meet the multiple goals of the models. For example, if I was teaching game-based activities using a Game-Sense Approach (Australian Sports Commission, 1996), I would use a cluster of teaching styles: maybe Practice Style—B, Guided Discovery Style—F, Convergent Discovery—Style G and Divergent Discovery Style—H, in

meeting the central tenet of the Game-Sense Approach of teacher questioning to develop "thinking players." Hastie and Curtner-Smith (2006) advocated the usefulness of the production cluster styles from The Spectrum when teaching a hybrid of the TGfU model for a Sport Education unit, like Kirk (2013) using the SEM.

#### Interpretative Pragmatics: From Theory Into Practice

Laurie: So, whether a teacher has a set curriculum or not, you believe that teaching should begin with a decision regarding the educational purpose of the lesson, unit, or curriculum (Quennerstedt, 2019)?

Daryl: I think so, from an understanding by design perspective (Wiggins & McTighe, 2005). For example, some models are not specific about the teaching style to be used. Similarly, curriculum frameworks generally do not describe what pedagogy to use. Sure, some name the teaching intention to enact, such as the SEM has been suggested as "direct instruction, cooperative learning, and peer or small-group teaching" (Metzler, 2011, p. 269). However, there seems to be a presumption that teachers know the "when" and the "how" to implement the styles. Furthermore, if teachers need to use questioning to guide students to discover tactics during gamebased activities, then teachers need to know the "how" or have tactical instructional background (McMahon & Macphail, 2007). I know that "cafeteria-style" adoption or "watering down" of models are sometimes warned against (Curtner-Smith et al., 2008), but another way to view "watering down" is that teachers are pragmatic and make things work (Pill & Stolz, 2017; Stolz & Pill, 2016a). Thus, identifying the question of "why" (the objective) should be used to provide the direction for the practice of PE (Quennerstedt, 2019). Identifying the objective leads the teacher to finding a pedagogical model or teaching style to meet the objective. Whereas a curriculum model does not give you the "way," it gives the structure or features of the model.

If the models in MBP are pedagogical models (or "model" is a noun), can you put a pedagogical model inside a pedagogical model? To put it another way, if Sport Education is a pedagogical model, why can different models be used to implement it? I think the answer is, for example, that the SEM is a curriculum model rather than a pedagogical model (Pill, 2012), as you can use a Tactical Model (Metzler, 2011) to achieve the competency objective of the SEM.

Laurie: So MBP are more curriculum than pedagogical models as they don't give teachers the "how" so specifically? Is there something that does—offering another step?

Daryl: Well some allude to micropedagogies (Hastie & Curtner-Smith, 2006) as being helpful. Micropedagogies are the teaching behavior and styles. When thinking about The Spectrum, I would say that I can't use Practice Style to implement Guided Discovery. To create a Practice Style learning episode the teacher uses Style-B, the Practice Style, from The Spectrum.

Laurie: Sorry, I am not following.

Daryl: I guess what I am trying to say is I think a curriculum model requires the use of a cluster of teaching styles, as a lesson is a series of teaching episodes. For example, how the Game-Sense Approach and other Tactical models (Metzler, 2011) are often described as Guided Discovery where the objective is for students to discover an idea, concept, or solution, whereas these models could be implementing Practice Style if the teacher is asking recall questions about what has just occurred and what the students should already know and understand (SueSee et al., 2016).

Laurie: I saw this at a workshop, a person said they were doing a TGfU model but did some small-sided games and some Practice Style tasks and did not follow the order of the six TGfU steps (Bunker & Thorpe, 1982). I wonder if this pedagogical ambiguity concerning teaching styles to be used to implement MBP leads to this "cafeteria style" criticism with some of the models (Curtner-Smith et al., 2008), where the teacher doesn't know which teaching style to use when implementing aspects of the model? Or in the TGfU example, doesn't follow the model but believe they are doing the model as they are preferencing asking questions and playing small-sided games in preference to direct instruction and full-sided game play.

Daryl: The TGfU situation is an interesting example. There's no point playing a small-sided game of passing and possession by hand if a student is just learning to get hit in the face because they can't catch. The teacher is not going to win any friends telling the student that the TGfU model won't allow Practice Style or Direct Instruction (even though it may be needed) so the teacher is doing the model but perhaps not addressing the students' learning needs. A bit like going camping and you discover you don't have all the equipment to deal with the challenges, you make do. You become pragmatic—interpretatively pragmatic (Stolz & Pill, 2014). This is where The Spectrum is different from a second-generation MBP (Ennis, 2014). Unlike MBP, it is not a framework to organize or reform curriculum where there is decentralized educational governance. It is, among other things, more a pedagogical model—the "how" to teach. Or as Kemmis (2019) describes the microperspective, the "moment-by-moment talk and interaction that unfolds in practices as they are performed" (p. 13).

Laurie: So, are you saying that even though the SEM or TGfU models have critical elements they won't always look the same?

Daryl: Spot on. But that's OK as they are not one thing but spaces for maneuver (Casey & Kirk, 2021) and the teacher hopefully is making those decisions based on the needs of the learner, the curriculum (the content) and the objectives they wish to meet through the micropedagogy.

### Interrogating Assumptions of Competing Perspectives: What Is "Good" Teaching?

Laurie: Are you telling me that if I know The Spectrum, I look at the objectives in any syllabus document or MBP, and consider the decisions the student and the teacher are being asked to make, I can pick a style that aligns?

Daryl: Well I won't say it is simple or that it guarantees "good teaching," but it is likely to increase your chances of aligning the objective of your teaching with the teaching style suited to meet the outcome of student learning desired (Pill & Rankin, 2020).

Laurie: But don't MBP's address this already, in their own unique way?

Daryl: I think The Spectrum helps a teacher ask themselves what they want to see from the student at the end of the teaching episode. It helps the teacher then decide the teaching style that best suits this objective, knowing what the behavior will look like from both themselves and the students to meet the outcome. Numerous scholars have highlighted the multidimensional goals of curriculum documents and suggested that diverse goals cannot be achieved alone through only one style (Digelidis et al., 2006; Kulinna & Cothran, 2003; SueSee, 2020; Syrmpas et al., 2017), or one model.

Laurie: If The Spectrum is so useful, why isn't it referred to more often in MBP literature?

Daryl: Kirk (2013) suggested that MBP offers a possible resolution to overcome diverse and competing objectives "by limiting the range of learning outcomes, subject matter and

teaching strategies" (p. 973). The Spectrum model does not seek to define content or teaching objectives. Today, those things are often decided by education departments and their curriculum writers in some countries (i.e., Australia or United Kingdom). Listen, I need to push off to my next conference session. Thanks for the chat.

#### Discussion

The discussion will focus on two issues with MBP evident in the narrative. First, that MBP's are potentially "great white elephants" rather than the "great hope" for PE reform (Casey, 2014), accepted more in theory than in practice (Casey et al., 2020), and second, why The Spectrum should be included in the discussion when debating the benefits of MBP and answering the question by Casey et al. (2020) about whether MBP provides "hope" and "is happening." We note the MBP debate in academic literature makes it seem like little has progressed in PE's educative credentials if MBP is being proposed for the same reasons Mosston presented The Spectrum in the 1960s (Mosston, 1966). It may also seem that little has changed since Mosston and Ashworth (2008) highlighted confusion between PE professionals about what we are meaning through similar approaches being called different things. We note that Casey et al. (2020) recently suggested a need "to move beyond a 'for' or 'against' debate" (p. 2) in which model or variation of a model is best, which aligns with the nonverses perspective of The Spectrum.

Addressing the argument that if models are viewed in a way that you either are or are not doing them (i.e., watering down), assuming teachers have existing knowledge of this landmark style, then at least five types of teaching failures can occur. First, failure occurs because the teacher has failed to implement the whole model authentically as the textbook describes, and the model was adapted as students' needs were not being addressed in a "textbook" version. Second, failure may occur even when the teacher implements the model authentically as a learner may need something the model does not advocate (e.g., individual closed-skill practice provided by the teacher when using Inquiry teaching) and choosing not to modify to meet the learners needs, fails the student. Creating a paradox, where the teacher implements the model with 100% fidelity, made possible only if the students are 100% able to learn when taught using the specific model chosen by the teacher. Casey (2014) recognized this situation when he pondered: does this view lead to MBP being white elephants of our own making? This "all or nothing" view (or a versus approach) can only lead to this dichotomous conclusion, especially if a model is chosen for something which it is unsuited (Casey et al., 2020).

A third failure eventuates when a teacher "waters down" a Model or The Spectrum, or "washes out" material on account of their own socialization experiences. The figurational sociology concept of individual habitus (Elias, 1994) can be used here to interpret such behavior. Elias (1994) used this term to mean a person's unfolding personality structure that described their values, attitudes, beliefs, and predispositions to act in certain ways. While an individual's habitus is largely formed in childhood, it nonetheless alters throughout life, albeit changing at a slower rate compared with other social processes (Green, 2002). An example of the influence of individual habitus is where teachers uphold the "one-size-fits-all" version of PE, or "PE-as-sport-techniques" (Kirk, 2013) mentioned earlier. Given the relative influence of individual habitus, such teachers can struggle to shift their thinking toward

more contemporary and more adequate teaching approaches such as those we advocate here.

While a nonversus approach would be beneficial for addressing this third failure, encouraging teachers to alter their thinking would require habitus modification. Such change although challenging is nonetheless possible, beginning perhaps with preteachers valuing The Spectrum through effective Physical Education Teacher Education in addition to quality in-service teacher professional learning. Concerning the latter, professional associations such as the Society of Health and Physical Educators (SHAPE America) and the Australian Council for Health, Physical Education and Recreation seem well positioned to offer this kind of support.

A fourth and final failure we have identified relates to how teachers have encountered their own Physical Education Teacher Education. This connection between our suggested fourth failure is illustrated by Williams and Pill (2018), who reported that Physical Education Teacher Education has little effect on preservice teacher individual habitus. Such limited influence means that on graduating, many teachers revert to teaching pedagogy they have traditionally valued, which may not necessarily be informed by evidence-based approaches. An example is where teachers draw upon their early childhood experiences of "PE-as-sport-techniques" as being the way PE should still be taught or where they privilege practical knowledge, "doing" PE, over theoretical knowledge, including "knowing" how to teach in PE (Green, 2000). The fourth failing cannot be addressed in this space or by The Spectrum. While The Spectrum undoubtedly provides a nonversus lens to view teaching and the knowledge to create a wide variety of teaching episodes to meet a wide variety of outcomes, this alone cannot change teaching behavior if the change or the outcomes are not valued in the school, the community, the culture or the students. Nor for that matter can MBP or any pedagogical model. Penney et al. (2009) when discussing quality PE suggest factors such as "local culture, school organisation, timetable arrangements, professional learning opportunities, school demographics, human and physical resources and teachers' own beliefs and values" (p. 423) all need to be considered in terms of curriculum or the "what" to teach. Intertwined with the "what" to teach is the "how" to teach (or the pedagogy) as how one teaches is inseparable from "what" one teaches (Penney et al., 2009). This plays a large part (along with the factors mentioned by Penney et al., 2009) in influencing the pedagogy of teachers, however believing that the "what" to teach (curriculum) is the whole answer in transforming pedagogy has been warned against by many (SueSee, 2020; SueSee & Barker, 2018). While we have not provided a solution to the final failure, what we will say with some certainty is, even if schools, governments, or academics agree on "what" to teach, if teachers do not have the knowledge or skills to enact the curriculum, there is very little likelihood that the outcomes of the curriculum will be met.

We contend then, that viewed through The Spectrum any given teacher needs to "know" a cluster of teaching styles to implement a model (Byra, 2020; SueSee et al., 2016), something that is often not recognized in MBP academic literature, especially when framing the discussion in terms of fidelity. For example, Peer Teaching viewed through The Spectrum is the Reciprocal Style because it has decision-making structures such as students observing peer performance and giving feedback. Moreover, the Tactical Model is presented as the teacher creating a game-based approach which requires a problem to be solved and using questions to prompt students to solve the problem (Metzler, 2011). This could largely be interpreted as Guided Discovery, or it may be

Convergent Discovery or Divergent Discovery, or all three in a lesson differentiated for the readiness of learners for creativity (Pill & SueSee, 2017). Interestingly, some have suggested that at times the Tactical Model could also be Practice Style (SueSee et al., 2016) depending on if questions posed by the teacher invite recall of previously discovered concepts. The issue here relates to the problem of inconsistency with terminology that Mosston and Ashworth (2008) identified as occurring due to a lack of, or commitment to, common language and understanding. For instance, Metzler (2011) identified five different names for Inquiry Teaching, outlining that no formal model has been developed. Similarly, Baldock and Pill (2017) identify seven different names for game-based or game-centered models.

When MBP are viewed as a cluster of teaching styles, much like how a PE lesson is a series of teaching episodes, a model is not "watered down" rather it is being implemented to meet a range of task objectives. Thus, the model is not constrained by inherent features creating nonnegotiable tenets (e.g., do not mix models, do the model for a whole unit of work, keep fidelity to the model) that reduce the opportunity of teacher's creating learning experiences to meet a wide variety of objectives making it difficult to implement. This suggestion is congruent with the viewpoint of Casey and Kirk (2021) that pedagogical models are specifications for practice and program development and not programs in themselves.

We argue that the models in MBP are a cluster or toolkit of teaching styles, distinctive perhaps by a dominant choice of a teaching style, but not exclusively by being one "style." For example, The Spectrum Styles F-H might all be applied for tactical instruction if students require the cognitive process of discovery to be used, but Practice Style B would be considered more appropriate if performance or consolidation of existing movement ability and knowledge is being retrieved by the task. Hence, a Tactical Model, for example, may require a cluster of pedagogies to address the objective of game competency.

The Spectrum provides for an understanding of the micropedagogies within MBP models, based on the premise that teaching is a chain of decision making. Consequently, providing the "how to," and the "why," which Casey et al. (2020) suggested is important in connecting the idea of a model to its "happening" in the situated context of the PE teacher and their students. The Spectrum achieves this illumination of the "happening" via congruence between the intent of the teaching episode and the action or pedagogy of the teacher (Mosston & Ashworth, 2008). The Spectrum provides the specific "how to" and the "why," in the sense that it helps the teacher understand and select the most appropriate style for a given objective. It also enables connection with the behavior the teacher needs to exhibit, as well as the decisions and behavior they expect from the learner (outcomes). This knowledge will allow the teacher to determine if the intent (objective) equaled the action (outcome). MBP are not fine grained, micropedagogy in their definitions of the "how to" as The Spectrum, partially due to it being a collection of curriculum models and not teaching styles.

In the fictional dialogue, we suggested The Spectrum provided a lens for viewing teaching episodes within MBP as "negotiable parts of a toolbox" (Casey et al., 2020, p. 9), directly applicable to the interpretative pragmatics of the everyday practice of the PE teacher in the situated uniqueness of their context (Pill & Stolz, 2015). We agree with those who have argued against MBP as "blueprints" requiring fidelity to strict tenets for verification of implementation (Casey & Kirk, 2021; Pill & Stolz, 2017; Stolz & Pill, 2014).

Declaring our positionality in the paper, we acknowledge that by engaging in a what we call the PE "improvement narrative" we engage with PE as contested ground both historically and contemporarily (Rink, 2001). Already, a diverse range of MBP (Casey & MacPhail, 2018; Metzler, 2011; Pill et al., 2017) are proposed as part the "improvement narrative." They are proposed to advance the teaching effectiveness to enhance the learner experience by defining and limiting learner outcomes, subject matter, and teaching styles (Kirk, 2013). We also understand that practitioners' teaching approaches in the natural setting of their practice are influenced by their perceptions of instructional effectiveness developed by the experience of teaching (Curtner-Smith et al., 2001; Green, 2000; Pill et al., 2017). However, we agree with Stolz and Pill (2016a) that good pedagogical practice is grounded in theory, because teachers need to be able to provide a principled account of "what" they are doing and "why" they are doing it. We base this position in The Spectrum perspective, where the efficacy of the PE teacher is that of one who deliberately designs learning encounters through purposeful pairing of teaching styles with the learner requirements from the task. The purposeful PE teacher thus approaches the reality of educational design not as an abstract concept, but as an actor deliberately constructing learning encounters for particular student outcomes within the situated complexity of their setting (Hewitt et al., 2020; Mosston & Ashworth, 2008; Stolz & Pill, 2016a).

#### Conclusion

If there is distance between the idea of MBPs and their "happening" in practice (Casey et al., 2020) we have argued that it is because model fidelity is viewed as "all or nothing," and MBP becomes complicated to the teachers. We use the narrative to suggest that this distance occurs because the role of the teacher, teaching episode to teaching episode, is insufficiently recognized. We argued that The Spectrum provides knowledge and skills with regard to the micropedagogy (Kemmis, 2019): instructional strategies or teaching styles, to enable explanation of the utility of teaching episodes that collectively create PE "lessons" in any situation. The Spectrum helps teachers understand the complexity of MBP and offers the tools and the toolbox that may allow the distance between the "hope" and the "happening" to narrow. We understand some readers may have limited familiarity with The Spectrum and suggest further action may be needed to explain the model and the concept of mobility within The Spectrum model. Such endeavor will involve pragmatically implementing the model, which in itself can be considered a success in using the model. Furthermore, undertaking such an endeavor serves to a greater or lesser extent to address the four failures we have identified. Furthermore, the fictional narrative and associated discussion raises questions which require further research. In particular, can The Spectrum play a role in assisting teachers implementing MBP as we have suggested?

#### References

- Alder, D.B., Williams, S., & Bush, A. (2016). A little less conversation; a little more (relational) action please. A fictional dialogue of integrating theory into coaching practice. *Sport Coaching Review*, *4*(2), 115–138. https://doi.org/10.1080/21640629.2016.1158544
- Armour, K. (2006). The way to a teacher's heart: Narrative research in physical education. In D. Kirk, D. Macdonald, & M. O'Sullivan (Eds.), The handbook of physical education (pp. 467–485). Sage.

- Ashworth, S. (2020). History and overview of the Spectrum. In B. SueSee, M. Hewitt, & S. Pill (Eds.), *The Spectrum of teaching styles in physical education* (pp. 14–26). Routledge.
- Australian Curriculum, Assessment and Reporting Authority (ACARA). (2016). Australian curriculum: Health and physical education. Version 8.3.
- Australian Sports Commission (ASC). (1996). Game sense: Perceptions and actions research report.
- Baldock, R., & Pill, S. (2017). What are physical education teachers being told about how to teach sport? An exploratory analysis of sport teaching in physical education. *Learning Communities: International Journal of Learning in Social Contexts* [Special Issue: 2017 30th ACHPER International Conference], 21, 108–123. https://doi.org/10. 18793/lcj2017.21.09
- Browne, T.B.J., Carlson, T.B., & Hastie, P.A. (2004). A comparison of rugby seasons presented in traditional and sport education formats. *European Physical Education Review, 16*, 176–195. https://doi.org/10.1177/1356336X040444071
- Bunker, D., & Thorpe, R. (1982). A model for the teaching of games in the secondary school. *Bulletin of Physical Education*, 10, 9–16.
- Byra, M. (2020). The spectrum: My journey. In B. SueSee, M. Hewitt, & S. Pill (Eds.), *The spectrum of teaching styles in physical education* (pp. 27–36). Routledge.
- Casey, A. (2014). Models-based practice: Great white hope or white elephant? *Physical Education and Sport Pedagogy*, 19, 18–34. https://doi.org/10.1080/17408989.2012.726977
- Casey, A., & Kirk, D. (2021). Models-based practice in physical education (1st ed.). Routledge.
- Casey, A., & MacPhail, A. (2018). Adopting a models-based approach to teaching physical education. *Physical Education and Sport Pedagogy*, 23(3), 294–310. https://doi.org/10.1080/17408989.2018. 1429588
- Casey, A., Macphail, A., Larsson, H., & Quennerstedt, M. (2020). Between hope and happening: Problematizing the M and the P in models-based practice. *Physical Education and Sport Pedagogy*, 26(2), 111–122. https://doi.org/10.1080/17408989.2020.1789576
- Connelly, F.M., & Clandinin, D.J. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 19(5), 2–14. https://doi. org/10.3102/0013189X019005002
- Crum, B. (1993). Conventional thought and practice in physical education: Problems of teaching and implications for change. *Quest*, 45(3), 339–356. https://doi.org/10.1080/00336297.1993.10484092
- Curtner-Smith, M., Hastie, P.A., & Kinchin, G.D. (2008). Influence of occupational socialization on beginning teachers' interpretation and delivery of Sport Education. Sport, Education and Society, 13(1), 97– 117. https://doi.org/10.1080/13573320701780779
- Curtner-Smith, M.D., Todorovich, J.R., McCaughtry, N.A., & Lacon, S.A. (2001). Urban teachers' use of productive and reproductive teaching styles within the confines of the National Curriculum for Physical Education. *European Physical Education Review*, 7(2), 177–190. https://doi.org/10.1177/1356336X010072005
- Digelidis, N., Theodorakis, Y., Zetou, H., & Dimas, I. (2006). *Physical education 5th-6th grade of primary school: Teachers' book.* Greek Ministry of Education.
- Dowling, S. (2012). A narrative approach to research in physical education, youth sport and health. In F. Dowling, H. Fitzgerald, & A. Flintoff (Eds.), Equity and difference in physical education, youth sport and health: A narrative approach (pp. 37–60). Routledge.
- Elias, N. (1994). Reflections on a life. Polity Press.
- Ennis, C.D. (1999). Creating a culturally relevant curriculum for disengaged girls. Sport Education and Society, 4,(1) 31–49. https://doi.org/ 10.1080/1357332990040103

- Ennis C.D. (2014). What goes around comes around ... or does it? Disrupting the cycle of traditional, sport-based physical education. *Kinesiology Review*, 3(1), 63–70. https://doi.org/10.1123/kr.2014-0039
- Green, K. (2000). Exploring the everyday "philosophies" of physical education teachers from a sociological perspective. *Sport, Education and Society*, 5(2), 109–129. https://doi.org/10.1080/713696029
- Green, K. (2002). Physical education teachers in their figurations: A sociological analysis of everyday "philosophies." Sport, Education and Society, 7(1), 65–83. https://doi.org/10.1080/13573320120113585
- Haerens, L., Kirk, D., Cardon, G., & Bourdeaudhuij, I. (2011). Toward the development of a pedagogical model for health-based physical education. *Quest*, 63(3), 321–338. https://doi.org/10.1080/00336297. 2011.10483684
- Hastie, P., & Curtner-Smith, M. (2006). Influence of a hybrid sport education: Teaching games for understanding unit on one teacher and his students. *Physica! Education and Sport Pedagogy*, 11(1), 1– 27. https://doi.org/10.1080/17408980500466813
- Hastie, P., de Ojeda, D., & Luquin, A. (2011). A review of research on sport education: 2004 to the present. *Physical Education & Sport Pedagogy*, 16(2), 103–132. https://doi.org/10.1080/17408989.2010.535202
- Hastie, P., & Sinelnikov, O.A. (2006). Russian students' participation in and perceptions of a season of sport education. *European Physical Education Review*, 12(2), 131–150. https://doi.org/10.1177/1356336 X06065166
- Hellison, D. (1995). Teaching personal and social responsibility through physical activity. Human Kinetics.
- Hewitt, M., SueSee, B., & Pill, S. (2020). Introduction to the Spectrum. In B. SueSee, M. Hewitt, & S. Pill (Eds.), *The Spectrum of teaching styles in physical education* (pp. 1–13). Routledge.
- Jewett, A.E., & Bain, L.L. (1985). The curriculum process in physical education (2nd ed.). C. Brown.
- Jewett, A.E., Bain, L.L., & Ennis, C.D. (1995). The curriculum process in physical education (2nd ed.). Brown.
- Jones, R. (2007). Coaching redefined: An everyday pedagogical endeavour. Sport, Education and Society, 12, 159–173.
- Kemmis, S. (2019). A practice sensibility: An invitation to the theory of practice architectures. Springer.
- Kirk, D. (2010). Physical education futures. Routledge.
- Kirk, D. (2013). Educational value and models-based practice in physical education. Educational Philosophy and Theory, 45(9), 973–986. https://doi.org/10.1080/00131857.2013.785352
- Kulinna, P.H., & Cothran, D.J. (2003). Physical education teachers' self-reported use and perceptions of various teaching styles. *Learning and Instruction*, 13(6), 597–609. https://doi.org/10.1016/S0959-4752(02) 00044-0
- Landi, D., Fitzpatrick, K., & McGlashan, H. (2016). Models based practices in physical education: A sociocritical reflection. *Journal* of *Teaching in Physical Education*, 35(4), 400–411. https://doi.org/ 10.1123/jtpe.2016-0117
- Locke, L. (1992). Changing secondary school physical education. *Quest*, 44(3), 361–372. https://doi.org/10.1080/00336297.1992.10484062
- MacPhail, A., Gorely, T., Kirk, D., & Kinchin, G. (2008). Children's experiences of fun and enjoyment during a season of sport education. *Research Quarterly for Exercise and Sport*, 79(3), 344–355. https://doi.org/10.1080/02701367.2008.10599498
- McMahon, E., & Macphail, A. (2007). Learning to teach sport education: The experience of a pre-service teacher. European Physical Education Review, 13(2), 229–246. https://doi.org/10.1177/1356336X07076878
- Metzler, M. (2005). *Instructional models for physical education* (2nd ed.). Hawthorne Hathaway.

- Metzler, M. (2011). *Instructional models for physical education* (3rd ed.). Routledge.
- Mosston, M. (1966). Teaching physical education. Merrill.
- Mosston, M., & Ashworth, S. (2008). *Teaching physical education* (1st online ed.). Spectrum Institute for Teaching and Learning. http://www.spectrumofteachingstyles.org/e-bookdownload.php
- O'Leary, N. (2016). Learning informally to use the "full version" of teaching games for understanding. *European Physical Education Review*, 22(1), 3–22. https://doi.org/10.1177/1356336X15586177
- Oliver, K.L. (1998). A journey into narrative analysis: A methodology for discovering meaning. *Journal of Teaching in Physical Education*, 17(2), 244–259. https://doi.org/10.1123/jtpe.17.2.244
- Penney, D., Brooker, R., Hay, P., & Gillespie, L. (2009). Curriculum, pedagogy and assessment: Three message systems of schooling and dimensions of quality physical education. Sport, Education and Society, 14(4), 421–442. https://doi.org/10.1080/1357332090 3217125
- Pill, S. (2012). Rethinking sport teaching in physical education [Unpublished Doctor of Philosophy dissertation, Faculty of Education, University of Tasmania, Launceston].
- Pill, S., & Rankin, J. (2020). Using the spectrum to ground PETE students' pedagogical footings. In B. SueSee, M. Hewitt, & S. Pill (Eds.), The Spectrum of teaching styles in physical education (pp. 48–59). Routledge.
- Pill, S., & Stolz, S. (2015). Exploring secondary physical education teachers' conceptualisation of physical education. In M. Drummond (Ed.), Edited Proceedings of the 25th ACHPER International Conference (pp. 23–32). Australian Council for Health, Physical Education and Recreation, SA Branch Inc. (ACHPER SA).
- Pill, S., & Stolz, S. (2017). Exploring Australian secondary physical education teachers' understanding of physical education in the context of new curriculum familiarisation. Asia-Pacific Journal of Health, Sport and Physical Education, 8(1), 67–79. https://doi.org/ 10.1080/18377122.2016.1272425
- Pill, S., & SueSee, B. (2017). Including critical thinking and problem solving in physical education. *Journal of Physical Education, Recre*ation & Dance, 88(9), 43–49. https://doi.org/10.1080/07303084. 2017.1367741
- Pill, S., Swabey, K., & Penney, D. (2017). Investigating physical education teacher use of models based practice in Australian secondary PE. *Revue phénEPS/PHEnex Journal*, *9*(1), 1–19.
- Quay, J., & Peters, J. (2008). Skills, strategies, sport, and social responsibility: Reconnecting physical education. *Journal of Curriculum Studies*, 40(5), 601–626. https://doi.org/10.1080/0022027080 1886071
- Quennerstedt, M. (2019). Physical education and the art of teaching: Transformative learning and teaching in physical education and sports pedagogy. *Sport, Education and Society*, 24(6), 611–623. https://doi.org/10.1080/13573322.2019.1574731
- Rink, J. (2001). Investigating the assumptions of pedagogy. *Journal of Teaching in Physical Education*, 20(2), 112–128. https://doi.org/10.1123/jtpe.20.2.112
- Rovegno, I. (2006). Teaching and learning tactical game play at the elementary school level: The role of situated cognition. In N. Wallian, M.P. Poggi, & M. Musard (Eds.), *Co-construire des savoirs: Les metiers de l'intervention dans les APSP* (pp. 115–126). Presses Universitaries de Franche-Comte.
- SHAPE America. (2013). Grade-level outcomes for K-12 physical education.
- Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–23. https://doi.org/10.17763/haer.57.1.j463w79r56455411

- Siedentop, D. (1994). Sport education: Quality physical education through positive sport experiences. Human Kinetics.
- Sinelnikov, O., Hastie, P., & Prusak, K. (2007). Situational motivation in a season of sport education. ICHPER-SD Research Journal, 2, 43–47.
- Stolz, S., & Pill, S. (2014). Teaching games and sport for understanding: Exploring and reconsidering its relevance in physical education. European Physical Education Review, 20(1), 36–71. https://doi. org/10.1177/1356336X13496001
- Stolz, S., & Pill, S. (2016a). A narrative approach to exploring TGfU-GS. Sport, Education and Society, 21(2), 239–261. https://doi.org/10. 1080/13573322.2014.890930
- Stolz, S., & Pill, S. (2016b). Telling physical education teacher education tales through pedagogical case studies. *Sport, Education and Society*, 21(6), 868–887. https://doi.org/10.1080/13573322.2014.962495
- SueSee, B. (2020). Using the Spectrum to interrogate the teaching styles of the physical education teacher. In B. SueSee, M. Hewitt, & S. Pill (Eds.), The spectrum of teaching styles in physical education (pp. 37– 47). Routledge.
- SueSee, B., & Barker, D.M. (2018). Self-reported and observed teaching styles of Swedish physical education teachers. *Curriculum Studies in Health and Physical Education*, 10(1), 34–50. https://doi.org/10.1080/25742981.2018.1552498
- SueSee, B., & Pill, S. (2018). Game-based teaching and coaching as a toolkit of teaching styles. Strategies: A Journal for Physical and Sport Educators, 31(5), 21–28. https://doi.org/10.1080/08924562. 2018.1490233

- SueSee, B., Pill, S., & Edwards, K. (2016). Reconciling approaches: A game centred approach to sport teaching and Mosston's spectrum of teaching styles. European Journal of Physical Education and Sport Science, 2(4), 69–96. https://doi.org/10.5281/zenodo. 163966
- Syrmpas, I., Digelidis, N., Watt, A., & Vicars, M. (2017). Physical education teachers' experiences and beliefs of production and reproduction teaching approaches. *Teaching and Teacher Education*, 66, 184–194. https://doi.org/10.1016/j.tate.2017.04.013
- Thorburn, M., & Collins, D. (2003). Integrated curriculum models and their effects on teachers' pedagogy practices. *European Physical Education Review*, 9(2), 185–209. https://doi.org/10.1177/1356336X 03009002004
- Tierney, W.G. (1993). The cedar closet. International Journal of Qualitative Studies in Education, 6(4), 303–314. https://doi.org/10.1080/0951839930060403
- United National Educational, Scientific and Cultural Organization (UN-ESCO). (2015). Quality physical education (QPE): Guidelines for policy makers. https://en.unesco.org/inclusivepolicylab/sites/default/files/learning/document/2017/1/231101E.pdf
- Wiggins, G.P., & McTighe, J. (2005). Understanding by design (2nd ed.).
  Pearson.
- Williams, J., & Pill, S. (2018). What does the term "quality physical education" mean for health and physical education teachers in Australian Capital Territory schools? *European Physical Education Review*, 25(4), 1193–1210. https://doi.org/10.1177/1356336X18810714