Curriculum Perspectives
https://doi.org/10.1007/s41297-024-00237-y

RESEARCH ARTICLE

Challenging pre-service teacher habitus: A self-study of unit design in teacher education

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Received: 6 October 2023 / Revised: 12 February 2024 / Accepted: 18 February 2024

Abstract

The purpose of our paper was to examine how John, the lead author, attempted to bridge the reality-congruence gap between how his Health and Physical Education (HPE) pre-service teachers (PSTs) *knew* HPE, before commencing the undergraduate unit (subject) central to this paper and how we *know* contemporary HPE as teacher educators. Here we use reality congruence according to its figurational sociology meaning as "the knowledge of it that is possible" (Giovannini, 2015, n.p.). The "it that is possible," is the broad disciplinary knowledge necessary for teaching HPE contemporarily, that both authors have acquired over many years. A self-study approach was adopted, using Norbert Elias's figurational sociology to deductively analyse John's practice in teaching the reported unit. We used a two-phase approach, with phase one being an exploration of John's experience of unit design and phase 2 examining John's assumptions about his practice and his students. We found that John's approaches were effective in influencing his students to learn and value reality-congruent HPE. Supporting qualitative student satisfaction data suggested many HPE-PSTs valued the teaching approaches John used, which also aligned with their learning preferences. Through planning teacher education curriculum content that challenges traditional notions of PE in particular, it is possible for teacher educators to influence HPE-PSTs towards learning and embracing more reality congruent HPE.

Keywords Self-study · Physical education · Teacher education · Figurational sociology

Introduction

The process of becoming a teacher has been extensively studied for several decades (Cochran-Smith & Villegas, 2015). It is reported in the extant literature that learning to think and act in ways expected of teachers is a difficult undertaking, particularly in enacting effective actions in dynamic, ever-changing situations that require complex professional decision making (Ovens et al., 2016). Darling-Hammond (2006) suggested that teacher educators face three fundamental problems when designing effective programmes and units.[1] The first of these is the problem of 'the apprenticeship of observation,' which refers to the fact that students come into initial teacher education (ITE) programmes with well-formed ideas from observing their own teachers. This prior knowledge, particularly in respect to students' preconceptions about the nature of the subject they will be teaching, can lead to images and ideas that are hard to transform and may perpetuate ineffective pedagogical practices. The second is the problem of 'enacting professional knowledge,' which refers to the challenge of translating theoretical knowledge into effective classroom practice. This highlights the gap that can exist between what students learn in their teacher education and how they apply that knowledge in the day-to-day reality of a classroom. The third, is the problem that 'teaching is a dynamic and complex act,' that requires a range of skills and knowledge. This highlights the issue that enacting professional knowledge requires teachers to adapt and tailor their instructional approaches to the specific context of their classrooms, considering factors such as student demographics, cultural diversity, and individual learning styles. Collectively, these

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[1] We use the term "unit" to refer to an individual course that students enrol in as part of their degree programme.

Published online: 20 March 2024

problems highlight the challenge of effective unit design to facilitate student learning and development in ITE.

In this paper we report on the outcomes of a self-study project. We sought to build on a growing interest amongst scholars concerning self-study in Physical Education (PE) and add to the limited work that has been completed in PE/Health and Physical Education (HPE) ITE (see Ovens and Fletcher (2014) for the wide range of topics that self-study can be used to explore in PE/HPE). Our study was about how John, the lead author, reconfigured the delivery of an undergraduate ITE unit within two HPE degree programmes at an Australian university, where he is employed as a HPE pre-service teacher (HPE-PST) educator. Alan, second author, acted as a critical friend to probe, challenge and facilitate critical analysis of John's pedagogical decision making in relation to reconfiguring his unit. Specifically, the study sought to understand how John's beliefs and assumptions shaped the design of the unit reported and to provide a sense of how they affected student learning. The value of using a Self-Study of Teacher Education Practices (S-STEP) methodology is that it acknowledges the highly situated nature of an individual's practice, enabling them to explore what agency they have to reconfigure and adapt their teaching to the unique context in which their practice takes place. However, opening one's pedagogy to inquiry is not straightforward since it is configured within multiple and interdependent elements such as institutional culture, regulatory standards, personal biography and politics, teaching space, and resourcing (Ovens et al., 2016). Trying not to unravel these strands, and therefore losing a sense of the agentic contribution they each make to John's pedagogy, meant there was a need to acknowledge and accommodate the complexity of teacher education pedagogy. Through dialogue and encouraging a "turn to the self", the study enabled an "exploration of the practice of the individual who conducted the research" (Hamilton & Pinnegar, 2015, p. 181) and developed an educational theory that "lives because it changes and grows as our experience deepens and our practices change and because that growth becomes evident in our practice" (Bullock, 2009, p. 164).

Figurational Sociology

To acknowledge and accommodate the complexity of both self-study and HPE teacher education (HPETE) pedagogy, we drew upon Norbert Elias's figurational sociology as an interpretive lens to deductively analyse John's practice. While there are alternative theoretical frameworks we could have adopted, we chose figurational sociology because it is "radically processual and radically relational in character; that is, it is processual and relational at its roots or core" (Dunning & Hughes, 2013, p. 50). The centrality of processes and relations to our paper cemented our choice of figurational sociology as being the most suitable theoretical framework to understand how John's beliefs and assumptions shaped the design of the unit reported and to provide a sense of how they affected student learning. Two tenets of figurational sociology identified by van Krieken (1998) were particularly relevant. First, social relationships can only be interpreted by examining the interdependent ties which connect us all in what Elias called figurations, formed and re-formed throughout our lives. The term figurations means structures of "mutually orientated and dependent people" (Elias, 2012a, p. 525). Here, we examined the HPETE figuration comprising John and the HPE-PSTs he has taught the unit to over a seven-year period. John and his students were commonly aligned to experiencing a unit that met their respective needs. For John this was to deliver a reality congruent unit, meaning one that used "knowledge of it that is possible" (Giovannini, 2015, n.p.). Here the "it that is possible" is the broad disciplinary understanding of our Key Learning Area (KLA) that is necessary contemporarily, which both authors have acquired over several decades as active researchers in our field. For the HPE-PSTs a main need was to learn contemporary ways of *doing* PE and they were dependent on John as their lecturer to provide this knowledge. Second, through different figurations we comprise and exist in throughout life, we develop a habitus or "personality structure" that becomes our "second nature" (Elias, 2012a). Here we use Elias's (2012a) notion of habitus to account for the well-formed ideas mentioned earlier, that students entering HPE ITE have formed from observing teachers during childhoods. Further, we use habitus to explain John's positionality. As a figurational sociologist and teacher educator, John has a habitus which values evidence-based reality congruent contemporary HPE teaching. Nonetheless, John acknowledges his emotional involvement (Elias, 2007 [1987]) or subjectivity, through his passion for teaching HPE and especially PE. His level of involvement, is founded on the notion that PE internationally, has traditionally, and continues to be taught in restricted ways, typically through "PE-as-sport-techniques" (Kirk, 2010) or "skills and drills". This outdated practice is often perpetuated by in-service teachers who have habituses about what they think PE *should* be, rather than by present-day understandings of the subject articulated through curriculum directives (Green, 2000; Williams & Pill, 2019).

Context

The study context is a foundational unit John has been continuously designing, teaching and modifying for seven years. The unit is located as a second-year subject within two undergraduate HPE degrees, one primary and the other secondary and importantly is the first of eight specialist HPE units the students undertake. John then, meets these

Table 1 Unit learning outcomes

Unit Learning Outcomes
1. Examine the sociocultural approach and how it has evolved;
2. Examine the role the sub-disciplines of history, philosophy, and sociology, play in shaping and determining contemporary practices in health and physical education;
3. Understand the impact biophysical and behavioural science has had on PE in schools, in particular through functional human anatomy, biomechanics, principles of exercise physiology, neurology, psychology, human growth and development;
4. Understand how scientific knowledge can be successfully applied through the sociocultural approach to assist with skill acquisition and the implementation of 'learning through movement' in an inclusive and socially just manner

students for the first time, and when their PE habitus has yet to be challenged or reinforced. Initially, John was a contracted in 2016 to teach this unit, with the understanding he had a "blank canvas" for its delivery so long as he addressed the unit learning outcomes. He recalls his enthusiasm about how he felt he could make a difference to student teaching and learning, having recently been HPE teacher and on account of his broad qualifications, expertise, and research interests. The learning outcomes that framed the design of the course are outlined above in Table 1.

While the unit aims and learning outcomes have remained unchanged since 2016, John has modified his teaching and learning approaches to better align with his students' preferences and needs, and within a university teaching delivery framework that affords a certain degree of flexibility. This modification has included making changes to unit content and instruments of assessment, as explained above, and in the following pages and often in response to HPE-PST anonymous unit satisfaction survey (USS) feedback. While assumptions and strategies that underpin the changes made to the course design and pedagogy are the focus of this study, it is important to consider the above teaching delivery framework to include ways in which John has navigated associated constraints. First, the structure of a one-hour lecture and a two-hour workshop over 10 weeks has remained unaltered since 2016, reflecting what has traditionally been used at John's university in all ITE units. Second, the weighting of some assessment tasks have been modified across different unit renditions to increase student unit success while maintaining academic rigour. Assessment instruments have also been changed to help students engage more with their learning, including set course readings. Nonetheless, assessment tasks must align within university policies about what approaches are admissible. Similarly, readings have been selected in accordance with university wide requirements to include unit reading lists and in John's case, to contextualise course content and help the HPE-PSTs relate their learning to the teachers and students they will be working with and teaching in the future. Third, the fixed structure of two-hour workshops have gradually evolved from being classroom theory-based to being practical focused involving movement, with each preceding lecture and weekly readings providing underpinning theoretical knowledge "about" movement (Arnold, 1979). Fourth, to scaffold the more formal reading, from 2022 John introduced the *Australian Council for Health, Physical Education and Recreation* (ACHPER) Victoria 'Tips of the Week' (TOTW) https://achper.vic.edu.au/achper/public/resources/Tip-of-the-Week-HPE/totw-hpe.aspx as a deliberate attempt to engage HPE-PSTs with reading. The TOTW series typically presents research in an annotated, "digestible" and applied format, to supplement the more formal academic peer-reviewed articles also used as unit readings.

Methodology: Examining the self-in-practice

As a methodology, S-STEP enables the researcher to illuminate, provoke, and challenge their practice as a teacher educator (Bullough & Pinnegar, 2001). It involves methods that enable critical examination of the thoughts and actions of the situated self in teacher education contexts (Pithouse et al., 2009) and encourages teacher educators to see their practice in a different way (Bullock, 2012). Opening John's teaching to such scrutiny allowed consideration of how his pedagogical decision making, particularly in respect to unit design, was focused towards addressing the unit learning outcomes, enabling his students to meet his university's accreditation requirements while learning contemporary HPE pedagogy content and knowledge (PCK). Here we understand PCK to comprise of "three related categories: subject matter knowledge, general pedagogical knowledge, and contextual knowledge" (Mitchell et al., 2013, p. 31). Concerning HPE PCK, we understand John's role as developing student teachers who can teach HPE with greater reality congruence (Elias, 2012a) to address contemporary curriculum expectations. Our research design was consistent with the characteristics of self-study (LaBoskey, 2004; Ovens & Fletcher, 2014; Pithouse et al., 2009).

First, it was self-initiated, in the sense John set the research agenda and facilitated an inquiry community to examine his self-in-practice. The latter informed by Arnoldian philosophy as the foundation for the *Australian Curriculum for Health and Physical Education* (AC: HPE) Movement and physical activity strand, with movement

being "a setting where personal, social and cognitive skills can be developed and refined" (Australian Curriculum and Assessment Authority [ACARA], 2023). Further, Arnoldian philosophy through the above AC: HPE strand, requires PE to be taught in broad, holistic and reality congruent ways beyond "PE-as-sport-techniques" (Kirk, 2010). This directive is significant to John's context, since the AC: HPE is the curriculum used in local schools where most of his students are employed after graduating. The nature of the unit outcomes (Table 1) is such, they align to Arnold's (1979) three dimensions of movement and especially "about" movement, that collectively require PE to not be restricted to practical performances, or simply *doing* physical activity. As Arnold (1979, p. 169) noted "as a subject to be studied movement takes an interest in human motion in all its richness and diversity. By calling upon such areas as anatomy, physiology, physics, psychology, sociology, anthropology, aesthetics and philosophy it can be regarded as compromising a composite area of study". Given these connections between Arnoldian philosophy, the AC: HPE and the unit, John made the decision from the outset, that Arnoldian thinking was central to unit delivery. Across the life of the unit, adjustments have been made in unit planning and delivery to allow Arnoldian thinking to be embedded (Table 2).

Second, our research design was improvement oriented, motivated by John's desire to have a meaningful effect on students' understanding and future practices as teachers, which involved being responsive to their USS feedback. John was aware that the validity of such feedback is questionable, and although very positive (see Table 3), he wanted to be attentive to how this feedback could provide insights into ways in which his teaching approaches could be further advanced. Third, the design was interactive with theory, colleagues, and published research. In this regard, we are mindful the self must always be understood in terms of involvement with others in the figurations they form throughout life (Elias, 2012a). Further, without the participation of others there is no self-study (Pithouse et al., 2009) and indeed from a figurational perspective the self cannot exist in isolation from other people. In other words, the idea that someone can exist in isolation from all others and have homo clausus, meaning "closed personality" Elias (2012a, p. 512) is not only fantastical in figurational terms, but also incompatible with self-study. A main example of this interaction with others, was the involvement of Alan as a critical friend to facilitate a deeper awareness and reflection of John's assumptions and the deliberate changes he made to his unit delivery. A critical friend is an essential component of S-STEP methodology, serving as a trusted and constructive advisor throughout the research process (Schuck & Russell, 2005). By offering an external perspective and posing probing questions, Alan helped ensure methodological integrity and facilitated deep analysis of John's recollections, memories, assumptions and strategies concerning changes he made to unit design and pedagogy. Further, Alan's input contributed to the overall robustness of the self-study, promoting a deeper understanding of teacher education practices and enhancing the quality of the research outcomes (Fletcher et al., 2016).

Our study method involved organising a series of online meetings where we clarified, deconstructed, and critically examined the rationale behind the modifications made to the unit. This was often followed up with an email thread, where additional comments, clarifications and reflections were added. At our first meeting we planned the subsequent meetings to span over two phases. In phase one, the aim was to prompt John to talk about his pedagogical decision making and identify the key changes he had made to unit delivery to date. We found these conversations easy to initiate, since John was passionate about his teaching, while being self-aware of the risks of being too emotionally involved (Elias, 2007 [1987]). For example, the dangers of teaching HPE using outdated approaches, or ones not evidence-based, or that lack reality congruence (Williams et al., 2021). Such a tendency for PE professionals, including academics to resort to such ways, has historically persisted in our profession (Elias & Dunning, 1986; Green, 2006). Conversations were also easy to initiate, because John, as a conscientious and highly reflective and reflexive practitioner, could readily recall the deliberate changes he had made to influence his students' engagement, knowledge, and professional habitus.

Over several meetings, the conversations were prompted by John sharing key artefacts, such as different versions of the unit outline and USS feedback. In this way, he was able to highlight the changes he had made and the corresponding impact they had on his HPE-PSTs. Following the meetings, John summarised the discussion, highlighting the key points and shared them with Alan via email. We also thought it important in this initial phase to analyse the USS qualitative data, which we had ethics permission to use for the study (Ref HREC 10455). We analysed this data thematically, to better understand how the HPE-PST's anonymous feedback supported or challenged John's assumptions.

In phase two, our aim was to critically reflect on the assumptions and rationale that underpinned unit design. What became important in this phase, was the need to structure reflection in a way that enabled John to consider and challenge his decision making, focussing less on how his students were affected, and more on his own thinking in respect to his pedagogy. As Ovens and Garbett (2020, p. 2) noted, reflection is a "means for making sense of the self-in-practice in ways that embrace the uncertainty, nonlinearity, and inevitable "messiness" that is inherent in pedagogical settings". The challenge here was to not "rush" to conclusions, but instead keep the discussion open, so that

Table 2 Extracts of USS feedback

Broadening of perspectives towards Q (quality) *HPE*	• "This unit definitely helped change the view of teaching HPE in schools to a QHPE style" • "I really enjoyed this unit, especially learning about how PE can be taught in broader terms than just PE-as-Sport-Techniques" • "The unit has provided new perspectives on the teaching of PE in schools that will assist me in the future" • "It opened my eyes to aspects of PE that I have never considered before, and I really appreciate that" • "I have found it to be very engaging and thought provoking in regards to the importance of acknowledging Aboriginal culture" • "It was great to see all the variances to PE and certainly changed my perspectives on how to and what to deliver in PE"
Real world relevant knowledge that had future application	• "I feel as though I have learnt so much about quality PE and how to use strategies in the classroom" • "A lot of units in this degree I have found myself thinking I will never use that knowledge in the classroom. This unit, however, I will most certainly use what I have learnt…" • "I have learnt so much and have been exposed to a new way of learning which I cannot wait to use in the future" • "This unit has provided multiple opportunities which have challenged my thinking and perceptions as a teacher but have allowed me to take away strategies for my future practices" • "Great opportunity to unpack HPE in ways I previously had not considered which is useful knowledge at this part of my degree. It has formed the foundations that will help me critique my own teaching philosophy and approach throughout my degree, on placement and in service"
Practical work reinforced learning theory	• "The practical lessons helped with my understanding of what we were doing in class and I felt I have a good understanding of what we have learnt" • "The linkage from the theory to its practical application was explored thoroughly" • "The prac lessons as it allowed us to put understandings into practice" • "The chance to participate and learn practically is an experience unmatched by other units of mine and makes me look forward to teaching HPE even more" • "Turning the theory into practice-based workshops was very engaging and gave us explicit modelling of what quality PE pedagogy is" • "I enjoyed the practical lessons provided as it broke things up and demonstrated the content well" • "I enjoyed the mixture of theoretical and practical tutorials • "The hands-on physical approach to applying theories and readings into practice was exceptionally beneficial as it helped to gain greater clarity on concepts, methods, and approaches to achieving the unit topic's goals"
Tensions in engaging with the scholarly literature	• "He sets relevant readings and also links in the practical workshops really well" • "He highlighted important passages in assigned reading to emphasise important information" • "The quality of materials and readings provided has been excellent" • "The assessment tasks were challenging but I felt we had lots of support, as the week-to-week content and readings related well" • "I enjoyed the unit as it was different to how I learnt HPE in high school, however there was a lot of content to know and a lot of readings which I struggled to get done" • "… would have been good to go over the information in the readings in class to unpack them, cause there was a lot" • "Would have been more effective if we actually got taught the information from the extensive readings, rather than leaving that part to be all self-taught" • "There was a lot of reading and information to process each week and I found it difficult to synthesise all of it before class and found it more useful listening to John unpack all the information in tutorials"

it appropriately "turned to self" as an essential element of the self-study process. As the study progressed, unit outlines and student evaluations became less important as empirical data informing the study, and more as prompts that enabled discussion and reflection. These dialogical discussions created spaces for meaning-making and self-reflection in ways

Table 3 Quantitative USS data

	2017	2018	2019	2020	2021	2022	2023
Student cohort numbers	58	52	57	41	47	51	39
Gender	**Female** 48.28% **Male** 51.72%	**Female** 32.69% **Male** 65.38 **Other** 1.92%	**Female** 36.84% **Male** 61.4% **Other** 1.75%	**Female** 43.9% **Male** 53.66% **Other** 2.44%	**Female** 55.32% **Male** 44.68%	**Female** 50.98% **Male** 49.02%	**Female** 43.59% **Male** 53.85% **Other** 2.56%
Age	**25–30** 75.86% **30 +** 24.14%	**20–24** 3.85% **25–30** 69.23% **30 +** 26.92%	**20–24** 35.09% **25–30** 56.14% **30 +** 8.77%	**20–24** 63.41% **25–30** 34.15% **30 +** 2.44%	**20–24** 68.09% **25–30** 23.4% **30 +** 8.51%	**20–24** 66.67% **25–30** 25.49% **30 +** 7.84%	**15–19** 5.13% **20–24** 82.05% **25–30** 12.82%
Strongly Agree Unit Average	47.4%	34.1%	51.7%	27.4%	48.8%	45.5%	27%
Strongly Agree University Average	26.25%	29.47%	30.09%	33.3%	31.83%	32.6%	32.32%
Unit Response Rate	46.63%	32.72%	43.43%	42.64%	39.16%	44.9%	53.3%
University Unit Response Rate	36.44%	33.55%	34.55%	29.62%	27.43%	26.2%	29.71%

that allowed for assumptions and rationale underpinning John's pedagogical decision making to be illuminated, challenged and clarified (Bullock, 2012; East et al., 2009).

The fourth and final way in which our research design was compatible with characteristics outlined by LaBoskey (2004), was that it drew upon qualitative data. In addition to the data generated through the prompted conversations we selected extracts of qualitative USS data across seven years of unit delivery (Table 2) to provide an indication of how John's beliefs and assumptions shaped the design of the unit and affected student learning. Similar to Nielsen and Thing (2019) we chose extracts that provided insights into some of the HPE-PSTs' experiences of the unit. Importantly, these extracts were not manipulated or adapted for the research, with us considering them as empirically opulent and "full of life," because they reveal the HPE-PSTs' reflective standpoints and opinions (Nielsen & Thing, 2019).

Phase one: The experience of unit design

The following section unpacks John's experiences and explanations in relation to how he shaped the design of the unit to enhance student learning. It is written in the first person and in response to discussions and prompting by Alan. This phase captures John's thinking about the key modifications and changes he made to unit delivery over the seven years reported. Further, the section sets out to explain ways in which he sought to bridge the reality-congruence gap between how his HPE-PSTs *knew* HPE, before commencing the unit, and how he *knows* contemporary HPE as a teacher educator. Further, this phase aims to show the main developments John initiated, to ensure the broad learning intention of the AC: HPE (ACARA, 2023) was reflected in his teaching. Rather than report each of the 10 weeks of unit delivery, we have instead selected turning points (Bullock and Ritter, 2010).

Turning Point 1: The tension between theory and practice—defining PE and what and whose knowledge counts – shifting student habituses beyond "practical philosophies"

Week Three is a significant point in the unit, as this workshop is the first practical activity the HPE-PSTs experience in their degree programs. The first part of the Week Three lecture is twentieth century PE history, where my published research about the local HPE teaching context is included as required unit reading. My intention is to build relevance and connection to my students' lives, since most have grown up and attended schools local to my university. I use the figurational concept of sociogenesis (Elias, 2012a) to explain how the existing figuration of PE, comprising of HPE teachers and the children they teach 'came to be'. In so doing I use local school architectural diagrams, similar to Elias's (2012a) use of historical architectural plans, to teach the HPE-PSTs about how such representations "talk" much about the function and meaning of PE during a given epoch. The second part of the lecture is concerned with ways the HPE-PSTs might tackle the main unit assessment item.

In presenting this information I am mindful of not being too prescriptive, to encourage the students to think independently and creatively in approaching the task. I also use this

part of the lecture to emphasise the importance and value of academic writing. I stress what I consider as the basic elements of assignment writing by explaining structure, the need to support claims with in-text academic references, examples, building arguments, topics that should be covered in the different sections and suggest recommended peer-reviewed reading to reference. This approach of drawing my students' attention to the HPE literature, is an example of how my habitus of promoting evidence-based reality congruent contemporary HPE teaching, is reflected in my work as a HPETE educator. In delivering this recorded lecture, my aim is to enable the students to make an early start on their assignments and for them to develop and craft their responses well ahead of the submission deadline. Nonetheless, I get a sense many do not take up this opportunity, through the limited assessment related questions they raise at the workshops early in the unit, compared with the number of emails I receive closer to the assessment submission date.

This observation about the HPE-PSTSs delaying work on their assessment, suggests some might be showing avoidance due to poor academic writing skills and/or fear of addressing this shortfall. There is also some suggestion through possible procrastination, that some of my HPE-PSTs may not share, or may not yet share, my habitus of valuing research informed approaches in HPE ITE. Instead, they may have habituses that align more to "practical philosophies," described by Green (2000, p. 127) as "'philosophies' that bore the hallmarks of their prior PE and sporting practice". In the Week Three workshop my aim is to reinforce theoretical content covered in the unit thus far, through practical learning using physical activity, while also incorporating evidence-based pedagogy, assessment and explicit links to the AC: HPE. Connections between curriculum, pedagogy and assessment are deliberate to reflect Penney et al.'s (2009) notion of quality PE as the intersection of those three elements and as the version of quality PE I uphold. I also teach Buroinjin as a local Aboriginal game, which has similarities to games the HPE-PSTs are familiar with, using a Game Sense approach (den Duyn, 1996). However, more recently in teaching this workshop I have introduced Aboriginal ways of learning to enable more reality congruence with Indigenous knowledges (Pill et al., 2022).

Turning Point 2: Examining the past to understand the present and just because it's "always been done this way" doesn't mean it's reality congruent quality PE

In Week Four, the topic is sociology, and while several sociological approaches are introduced, I emphasise the usefulness and "largely undiscovered – significance of figurational sociology in general, and the work of Eric Dunning in particular, for our understanding of physical education and sport in schools" (Green, 2006, p. 650). The Week Four workshop is another attempt to challenge HPE-PST thinking and individual habitus, where traditional PE activities such as Dodgeball and other examples from the "PE Hall of Shame" (Williams, 1992), and wet weather activities with no educational purpose, are played and critically examined with alternatives trialled. This exploration examines the often "taken-for-granted" acceptance of activities HPE-PSTs are familiar with and questions the reality congruence of those activities to contemporary PE. The students also assess each activity played, by scoring against quality criteria using a *Quality Teaching Model* (New South Wales Department of Education and Training, 2006) as another way to measure reality congruence.

The Week Five workshop aims to reinforce HPE-PST understanding of figurational sociological concepts through an informal classroom drama exercise purposefully scripted for this unit. This activity involves the HPE-PSTs as actors, who perform four scenes tracing the life over four decades, of a hypothetical high school PE/HPE faculty figuration. It aims to teach the students about figurational sociology through a relatable, albeit fictitious context. Faculty "teachers" join and leave this fictitious figuration, all of whom are involved in interdependent relationships (Elias, 2000) characterised by continually altering social power balances (Elias, 2012b) which to a greater or lesser extent are influenced by their habitus (Elias, 2009). As part of the evolving nature of my unit delivery, in the 2023 rendition of the unit, I taught the Week five workshop entirely as practical content. I used Elias's (2012b) game models framework, which uses the multi-dimensional nature of a game as a metaphor, to represent the social power balances that exist in all figurations. In this workshop I go one step further by actually playing different versions of football that practically reflect Elias's (2012b) approach. Taking this initiative now means that eight of the 10 unit workshops are of a practical nature, reflecting my deliberate attempt to meet the needs and wishes of my students, to reinforce taught theoretical knowledge through practical physical activity.

Turning Point 3: More learning theory through practical towards reality congruent PE

The unit takes a significant theoretical shift from Week Six, when attention turns to human movement science. The HPE-PSTs have a wide range of existing knowledge, typically from some having limited understanding, to others who are concurrently completing elective specialist anatomy, physiology and biomechanics units taught by a different faculty. In teaching the Week Six, Seven and Nine content, my approach is to continue to make content as applied as possible. In other words, similar to the first half of the unit, I provide theoretical knowledge through the weekly lectures and readings and use the workshops to teach how this theory

can inform and be used in practical teaching. The physiology workshop in Week Ten is taught with a focus on running and explores how the body responds to this kind of exercise, using heart rate monitors and aerobic and anaerobic activities. This workshop was re-designed in 2022 to reflect my growing knowledge about how fitness content should be taught according to the AC: HPE Health benefits of physical activity focus area and from research findings about the same (Williams et al., 2022a).

The following table presents extracts from qualitative USS unit feedback collected across the life of the unit and as part of phase 1. The substance of these extracts broadly aligns with the three turning points above.

While the purpose of the USS qualitative data is entirely indicative and again secondary to our self-study approach, quantitative USS data (Table 3) provides a broad overview of the impact of John's approaches to teaching and learning within the unit. The satisfaction rates are expressed in percentage terms and as the average response to five statements devised at a university level for all units. The Table shows the average for "Strongly Agree" as the most positive response option. This average unit percentage for "Strongly Agree" is also compared with overall university average satisfaction rates and for all taught units across the university. Also shown, is the average response rates compared with all university taught units and again over seven years. Except for 2020 and 2023, "Strongly Agree" is higher than the university average for each year. The reasons for the 2020 and 2023 anomalies are unknown but may relate to the impact of COVID in the case of 2020. However, the average for "Agree" as the second most positive option was higher than the university unit average (58.9% and 48.7% (2020); 54.6% and 49.87% (2023)).

1. Learning experiences in this unit will help with my work-related goals.
2. I made the most of my opportunities to learn in this unit.
3. Overall I am satisfied with how the staff in the unit supported my learning.
4. Overall I am satisfied with the quality of this unit.
5. Please provide any further comments on your learning experience in this unit.

Phase two: Assumption hunting

Embedded in the experiences and explanation of how John has modified the unit over time are his assumptions. Those assumptions play a significant role in shaping how John makes sense of the feedback provided by the USS data and his own reflections about areas for improvement. In initially designing the unit, John was acutely aware of the issues and challenges involved, and these have shaped the assumptions that underpin how it has evolved and adapted. John's assumptions are summarised in the next paragraph.

First, there was the belief that students place more value on practical over theoretical knowledge. John anticipated the issue here was, in reconciling student values and beliefs, there could be a tension in fulfilling his responsibilities in delivering the unit. Essentially, he foresaw students who expected more emphasis on *doing* PE, rather than learning *about* PE. This perceived challenge was informed and confirmed during "corridor conversations" with colleagues who taught his students a generic literacy unit in their first year of study, compulsory for all HPE-PSTs. Those colleagues often remarked how HPE-PSTs were "difficult" and saw limited relevance in, or connection with, learning reading and writing skills. Second, there was the issue of students' HPE content knowledge. In part, this was linked to the fact that the HPE-PSTs have been on campus a long time learning about general teacher education, before encountering any HPE specific units. The students' general lack of HPE PCK was attributable to them only having access to HPE specialist units in their second year of study. The first of these specialist units is the one reported here and is the initial unit of eight HPE units the HPE-PSTs complete in their degrees. As such, this first specialist unit can for many, be a time where their pre-dispositions about HPE are challenged for the first time. Further, since the introduction of the current degree programs, from 2016, it has concerned John, that a lack of HPE content in Year 1 is a significant weakness, contributing to a "squeeze" on practical content, as represented in the AC: HPE (ACARA, 2023) Value movement proposition and what is core to our subject (Tinning et al., 2001).

Associated with the HPE-PSTs having limited PCK, was the issue of students having a sound understanding of the philosophical basis of PE. The PE content in the AC: HPE, is designed to teach students knowledge, skills, and attitudes they need to be physically active throughout their lives. It also aims to create opportunities for students to engage in meaningful physical activity and to provide contexts for developing critical thinking skills and making informed decisions about their physical activity participation. As mentioned, the AC: HPE is underpinned by Arnold's (1979) ideas of "in" "through" and "about" movement and are implicit in what is termed the "Movement and physical activity strand" (ACARA, 2023). However, students coming into a HPE ITE course often have different understandings of what movement education means, which can depart from an Arnoldian philosophy (Ovens, 2017; Philpot & Smith, 2011). Certainly, in the context where this study occurred, this variation suggests a core aspect of HPE ITE at John's university is to ensure students are not only introduced to Arnold (1979) ideas, but also have the opportunity to work with them, as an essential part of their decision-making as

teachers. In writing "about" movement, much of this paper's focus, Arnold (1979) described "about" movement as a "theoretical body of knowledge" which Stolz (2014, p. 81) elaborated as the "foundation in which coherent understanding can take place about what is performed".

The issues we have presented in the previous paragraph have shaped two key assumptions about John's unit design and teaching. First, that many teachers of PE have strong pre-dispositions or habitus, to practical sport (which is supported by Green, 2000). Second, that the HPE-PSTs may show resistance to engaging with scholarly literature and exert a continual pressure to reduce PE to *doing* movement, linking to an enjoyment of sport many display. This enjoyment could be underpinned by many HPE-PSTs being attracted to teaching PE because they are "sporty" (Green, 2000). In other words, they may be drawn to the profession through having limited and more or less fantastical beliefs (Elias, 2006) about the nature of our KLA contemporarily. To a greater or lesser extent these beliefs are informed by the HPE-PSTs individual and social habitus, and ideologies about what a HPE teacher *is* and what a HPE teacher *does*. About society more broadly, Elias (2006) argued the balance between fantasy and reality was the problem facing the social sciences. This balance he observed, is when individuals succumb to their affective behaviour "the less the chance of a transition to more realistic, less fantasy-laden thinking. And the more fantasy-laden-their thinking, the more uncontrollable are people's anger and passion" (p. 17). Here, John is reminded of colleagues speaking about their frustrations in teaching HPE-PSTs the literacy unit mentioned, and the feelings of annoyance often evoked amongst those students.

Delving into our assumptions further, if students are not reading then they are not developing their knowledge. This is especially a concern, when in the jurisdiction where most of the HPE-PSTs are employed after graduating, PE is defined as "the process of gaining knowledge, skills and attitudes mainly through physical activity" (Australian Capital Territory Government Education, 2017, p. 5). Therefore, how then does limited reading affect the development of HPE-PSTs as future teachers and should we, as teacher educators be perturbed? A related concern is John's belief that his students sometimes reproduce what they experience during school teaching placements, reinforcing habituses around traditional PE, typically aligning with their personal sporting biographies (Green, 2000). By "traditional PE" we mean "a historically narrow understanding of PE lacking contemporary relevance" (Williams et al., 2022b, p. 44) often represented through "PE-as-sport-techniques" (Kirk, 2010) or "skills and drills". Consequently, in terms of Educative purpose as an AC: HPE key idea, what PSTs experience on placement where traditional PE is valued and upheld, can lack reality congruence in terms of curriculum representation and enactment. We concur that Arnoldian philosophy is an opportunity for reality congruent teaching to be accessible. The challenge then, is how can we engage some students in placing greater value on what they read and learn at university.

Conclusion

In sharing the learning from this self-study, we aimed to show how John was able to reflect on the key factors that mediated his unit design and model the importance of teacher educators having agency to reconfigure and adapt their teaching to the unique context in which their practice takes place. A main assumption by John, was his belief his students placed more value on practical than theoretical knowledge. In responding to this assumption, it seems John's deliberate attempts to progressively, over the timeline reported, teach more and more theoretical knowledge through practical workshops, particularly appealed to those students who had habituses strongly aligned towards practical sport. A second assumption was the issue of the HPE-PST's content knowledge and how John could help his students develop sound understanding of the philosophical basis of PE. Associated with this concern was how John could effectively engage his students with academic reading and value learning academic writing skills he viewed as essential for understanding how to teach PE in reality-congruent ways and as a move away from teaching traditional PE. The latter being inadequate for meeting the broad aims of the AC: HPE, underpinned by Arnold's (1979) three dimensions of movement, as the curriculum used in most schools local to John's university and where most students gain employment on graduating.

Concerning his assumptions about tensions in engaging his HPE-PSTs with the scholarly literature, it was evident some students believed John enhanced their learning through set readings, while others struggled with the reading volume and comprehending texts. Consequently John's assumption that many of his HPE-PSTs resist reading and exert a continual pressure to reduce PE to *doing* movement, has been altered somewhat. Nonetheless our findings leave us with an ongoing concern of how much student support is enough and how much do we *do*, in helping students value, engage and learn through the scholarly literature to enhance their PE knowledge. An approach John has used to address this concern is ACHPER Victoria's 'Tips of the Week,' which he uses to give his students access to "bite sized" PE theoretical knowledge to "scaffold" their learning and understanding. This scaffolding is designed to assist the students in comprehending more lengthy and more complex academic journals John also uses as a main approach to teach his students

underpinning theoretical knowledge about PE. Overall, the qualitative and quantitative USS feedback suggested the students had high levels of satisfaction, and many valued how John's beliefs and assumptions had shaped the design of the reported unit. Broadly speaking, it would appear and again from our USS data, some of the HPE-PSTs may have experienced a habitus shift where they had come to consider HPE in ways that were previously unknown to them. All that said, we are mindful of our incomplete understanding of the HPE-PST figuration studied, specifically on account of the students who remained silent through not providing USS feedback and whose perspectives remain unknown to us. Of concern is if their habituses do not value theoretical knowledge, since such a disposition will compromise their impact as future HPE teachers and in PE in particular given the importance of Arnold's (1979) three dimensions of movement.

Finally, an issue relevant in any self-study research, is the question of what can other teacher educators can learn from our work and our insights about the issues explored? In response, we suggest figurational sociology allows a focus on the complex interdependences that constitute the learning ecosystem of ITE. This attention helps shed light on how such relationships influence student teachers' experiences and learning. Further, it encourages teacher educators to fine-tune their teaching and unit design to challenge HPE-PST habitus, especially where those students have traditional understandings of our subject. That said, we acknowledge the different contexts within which ITE takes place and our findings are not transferable. In summary, we have provided evidence of program design for more reality congruent ITE that has twenty-first century relevance and that has reduced ideology and fantastical elements.

Funding Open Access funding enabled and organized by CAUL and its Member Institutions.

Declarations

Competing interests The authors have no competing interests to declare that are relevant to the content of this article.

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