Hardcore coaching and hardcore fitness-oriented preservice teachers delivery of teaching games for understanding

By: Craig Parkes, Michael A. Hemphill

Abstract:

Purpose: The study purpose was to investigate how preservice teachers' (PTs) socialization orientations influenced their interpretation and delivery of the teaching games for understanding (TGfU) model.

Method: Participants were 14 undergraduate PTs enrolled in a games methods course in the Northeastern United States. Qualitative data were generated through autobiographical essays, peer-teaching lesson observations, document analysis, and stimulated-recall interviews. NVivo software was used to manage and store data, with analytic induction and constant comparison techniques being utilized to code data.

Results: Findings from this study suggest that PTs who possessed hardcore fitness and hardcore coaching orientations could deliver a full- version of TGfU. Socialization influences included sporting expertise, youth coaches, initial modified game, game context, and peer teaching.

Discussion: The findings provide a positive outlook for the field of occupational socialization and TGfU and may inspire individuals possessing hardcore non-teaching orientations to employ high-quality versions of the model.

Keywords: occupational socialization | acculturation | professional socializations | teaching games for understanding

Article:

lmost four decades have passed since Bunker and Thorpe (Citation1982) introduced the Teaching Games for Understanding (TGfU) model. It was developed after lesson observations provided concerns regarding low levels of student enjoyment, understanding, and success when playing games. Despite a large amount of curriculum time being dedicated to games, little attention had been given to the way games were taught. Prior to TGfU traditional games teaching had typically

developed psychomotor techniques in isolation before progressing to a full game. However, it has been suggested that traditional teaching does little to help students truly understand the holistic context of games, with learners frequently making poor decisions because of an over reliance on teachers' instruction and feedback (Hastie and Curtner-Smith Citation2006). Evidence also suggests traditional games approaches can result in student boredom (Ennis Citation1999), alienation of low-skilled learners (Ennis Citation1999), and poor cognitive (Allison and Thorpe Citation1997) and affective development (Light Citation2002). The TGfU framework provides a holistic approach by utilizing constructivist learning principles (Griffin and Patton Citation2005). It achieves this by promoting skillful performance, decision-making opportunities, and tactical awareness, within developmentally appropriate modified games. Therefore, learners should be assigned tactical problems to solve, differentiation strategies should be employed to modify games and create an inclusive learning environment, and the teacher must adopt an indirect facilitator role (Butler Citation2012). The TGfU model and game-centered variations of this model have received worldwide academic pedagogical support (see Harvey and Jarrett Citation2014). However, locating teachers who are willing to employ TGfU can prove to be a challenging task (O'Leary Citation2012). Further, many practical examples of TGfU appear to be misinterpreted from the original theoretical framework (Butler Citation2014). A contributing factor to this may be the limited success preservice teachers (PTs) have had in delivering innovative games models as they were intended during physical education teacher education (PETE) programs (Vollmer and Curtner-Smith Citation2016). Several issues presented by PTs include providing limited physical activity time for learners, model resistance and confusion, cooperating teachers with conflicting ideologies, a lack of student motivation, and limited tactical knowledge, (Harvey and Jarrett Citation2014; McCaughtry et al. Citation2004; McMahon and MacPhail Citation2007; Parker and Curtner-Smith Citation2005; Vollmer and Curtner-Smith Citation2016). Over the last 30 years, occupational socialization theory (Lawson Citation1983a, Citation1983b) has provided the field with insights regarding factors that influence PTs inability to teach innovative games models during PETE. Such insights include the power of acculturation (Curtner-Smith Citation2017), the challenges faced by PETE faculty (Ziechner and Gore Citation1990), and the influence of more experienced colleagues within the work environment (Blankenship and Coleman Citation2009).

Theoretical framework

Occupational socialization (Lawson Citation1983a, Citation1983b) is a theoretical framework that has underpinned most of the research investigating the careers of prospective, preservice, and inservice physical educators for almost 40 years (see Curtner-Smith Citation2017; O'Leary Citation2016; Ralph and MacPhail Citation2015; Richards, Templin, and Graber Citation2014a). According to Lawson (Citation1986) occupational socialization 'includes all the kinds of socialization that initially influence persons to enter the field of physical education and that later are responsible for their perceptions and actions as teacher educators and teachers' (107). Physical education teachers experience three distinct stages throughout their careers referred to as acculturation, professional, and organizational socialization. The organizational socialization stage is not relevant to this study because the participants had only experienced the first two stages of occupational socialization.

Acculturation

The acculturation stage influences individuals through their physical education and youth sport participation experiences (Curtner-Smith Citation2017). This process is largely responsible for recruiting individuals into the profession. During acculturation, individuals begin to develop socialization orientations that are influenced by their childhood experiences of physical education and youth sport (Betourne and Richards Citation2015; Parkes and Hemphill Citation2020). During this stage, recruits may also be influenced by significant individuals, including teachers, coaches, family members, and peers (Ralph and MacPhail Citation2015). Acculturation typically results in recruits entering PETE in possession of orientations underpinned by teaching, coaching, and/or fitness perspectives (Parkes and Hemphill Citation2020: Richards and Padaruth Citation2017).

Orientation

A socialization orientation can be used to identify an individual's motivation for entering the physical education teaching profession. If a recruit is focused on teaching physical education over coaching sport, they are considered to possess a teaching orientation (Lawson Citation1983a, Citation1983b). Research suggests that teaching-oriented PTs are open-minded, and more likely to embrace and adopt the ideas and practices promoted by PETE faculty (Curtner-Smith, Hastie, and Kinchin Citation2008). However, physical education is not always the primary motive for PETE recruits. Recruits who favor coaching may consider physical education teaching to be a career contingency and are referred to as possessing a 'coaching orientation.' (Curtner-Smith, Hastie, and Kinchin Citation2008; Lawson Citation1983b). Evidence also suggests that in states where coaches require a teaching certification that physical education may be the most relevant and comparable degree subject of choice (Ward Citation2019). Recruits fully committed to elite sport during acculturation typically possess 'hardcore' coaching orientations and are less likely to adopt innovative messages during PETE (Sofo and Curtner-Smith Citation2010). In contrast, recruits not fully committed to elite sport often possess 'moderate' coaching orientations, and are more likely to be influenced during high-quality PETE (Sofo and Curtner-Smith Citation2010). It has more recently been suggested that fitness orientations may be possessed by recruits and PTs (Parkes and Hemphill Citation2020; McCullick et al. Citation2012; Richards and Padaruth Citation2017). Recent studies suggest that fitness-oriented PTs typically value fitness and wellness goals over the traditional skill development approach to physical education (Parkes and Hemphill Citation2020; McCullick et al. Citation2012). A decline in physical education quality from grade school to high school, elite-level sports participation, and the influence of youth head coaches appeared to influence PTs with fitness orientations (Parkes and Hemphill Citation2020). Incoming recruits can now be categorized into one of three distinct orientation categories (i.e. hardcore teaching, hardcore coaching, hardcore fitness), or an amalgamation of multiple orientations (e.g. hardcore fitness/moderate coaching; see Figure 1). It has been suggested that understanding PTs orientations has the potential to increase the overall effectiveness of PETE programs (Curtner-Smith Citation2017).

Professional socialization

The professional socialization stage occurs when a recruit enrolls in a PETE program (Lawson Citation1983a, Citation1983b). During this stage, PTs should acquire the pedagogical knowledge
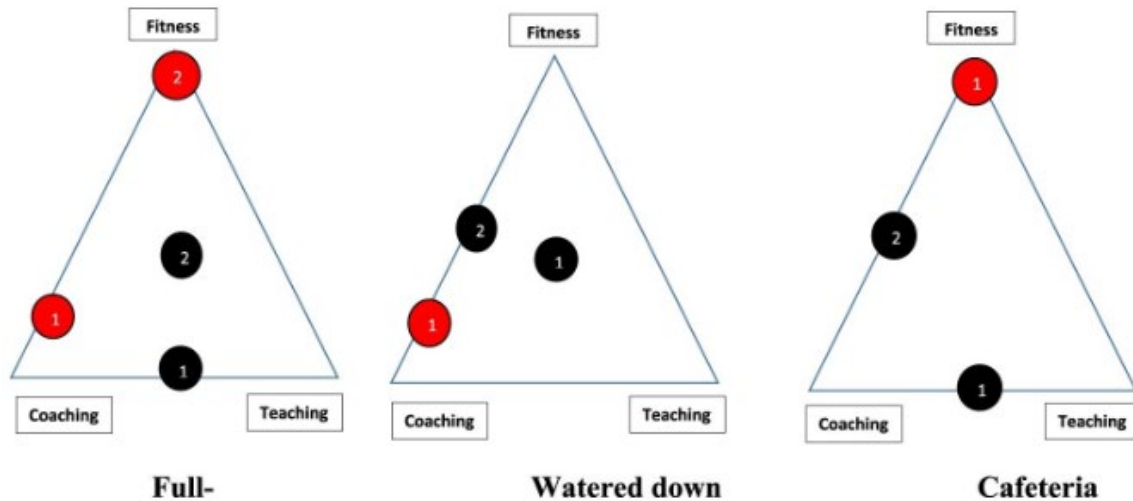
Figure 1. Version of TGfU Delivered and Type of Orientation Possessed. Adapted, with permission of Society of Health and Physical Educators, www.shapoeamerica.org, from K.A.R Richards and S. Padaruth (Citation2017). Motivations for Pursuing a Career in Physical Education: The Rise of a Fitness Orientation. Journal of Physical Education, Recreation, and Dance, 88(4), 40-46.

and skills necessary to become a certified teacher. However, faculty often have a challenging task to undo many years of acculturation during a few semesters of PETE. Recruits spend thousands of hours participating in physical education, youth sport, and fitness activities, while also developing beliefs and orientations regarding how to execute their future professional roles through the observation of teachers, coaches, and instructors (Parkes and Hemphill Citation2020). This 'apprenticeship of observation' (Lortie Citation1975) results in recruits often developing a strong set of physical education teaching beliefs and values (Schempp and Graber Citation1992), which are so ingrained that they act as a filter to new knowledge (Curtner-Smith Citation1999) and prove difficult for PETE faculty to influence (Ziechner and Gore Citation1990). Sofo and Curtner-Smith (Citation2010) suggest that professional socialization may be the weakest stage of teacher socialization because innovative approaches to teaching may conflict with the recruit's orientations. This is especially true for recruits in possession of hardcore coaching orientations (Curtner-Smith, Hastie, and Kinchin Citation2008; Richards et al. Citation2014b).

Influence of occupational socialization and orientation on games instruction

Three comparable studies have investigated the influence of occupational socialization on PTs delivery of TGfU (Vollmer and Curtner-Smith Citation2016), and beginning (Curtner-Smith, Hastie, and Kinchin Citation2008), and experienced (Curtner-Smith et al. Citation2021) teachers' delivery of Sport Education (SE) in the United States. These studies discuss the delivery of full, full+, watered down, and cafeteria version of these innovative models. The 'full' version of a model is delivered in congruence with the best practices of the model, with a full + approach expanding upon the original model. A 'watered down' version reflects a misinterpreted version of the model, and a 'cafeteria' approach merely incorporates convenient parts of the model into traditional lessons. The relevance of these versions is important to assess the impact of PETE and to predict the implementation of these models being delivered effectively once PTs become

inservice teachers (see Curtner-Smith, Hastie, and Kinchin Citation2008). In the first study PTs with teaching orientations and moderate coaching orientations were unable to deliver the 'full' version of TGfU (Vollmer and Curtner-Smith Citation2016). Pedagogical struggles, misconceptions, and socialization experiences all reduced the effects of formal PETE training. Prior involvement in coach-led sport and/or teacher-led physical education was an acculturation influence. Professional socialization factors included acculturation beliefs and PETE content conflict, and early field experience constraints. The findings from the study investigating early career teachers suggested that individuals with hardcore coaching orientations failed to deliver full versions of SE (Curtner-Smith, Hastie, and Kinchin Citation2008). In contrast, if individuals possessed teaching or moderate coaching orientations, they had the potential to deliver full, watered down, and cafeteria versions of SE. Findings suggested that high-quality PETE, and increased exposure and opportunities to teach SE, may result in PTs with teaching and moderate coaching orientations delivering better versions of the model. However, even high-quality PETE is believed to have little impact on the likelihood of PTs with hardcore coaching orientations delivering any version of SE. Acculturation influences included youth sport participation supported by active parents, and professional socialization influences included opportunities to teach the model and pupil responses during early field experiences. In a more recent study investigating experienced teachers experiences in possession of teaching orientations during and after PETE, data suggested that some participants also delivered a full+ version of SE. They did this by expanding upon the original model with additional content, incorporated technology, and pedagogical enhancements (Curtner-Smith et al. Citation2021). Socialization factors that influenced teachers' delivery of SE included sporting backgrounds, positive and negative PETE experiences, and the school infrastructure.

Research purpose and questions

It has been suggested that TGfU is a model that can develop a range of game-relevant skills including decision-making, tactical awareness, and psychomotor execution (Griffin and Patton Citation2005). However, there is evidence to suggest that such models are rarely delivered as intended, especially when PTs have hardcore coaching orientations (Curtner-Smith, Hastie, and Kinchin Citation2008). The purpose of this study was to use Lawson's (Citation1983a, Citation1983b) occupational socialization theory to investigate how the prior and current socialization experiences of PTs enrolled in a PETE games methods course influenced how they interpreted and delivered the TGfU model to their undergraduate peers. The unique component of this study was that prior studies have not investigated the influence of occupational socialization on how PTs with the newly identified fitness orientation interpret and deliver TGfU (see Parkes and Hemphill Citation2020).

Drawing upon the findings of the most comparable studies and putting them into the context of study participants being PTs enrolled in a game's methods course, in a program considered to be high-quality PETE, the following hypothesis was developed. It was suggested that PTs who possessed hardcore coaching and hardcore fitness orientations would be unable to deliver full versions of TGfU when peer teaching as part of a game's methods course was a degree requirement. Despite the level of accountability placed upon PTs to interpret and deliver TGfU in line with the framework to be successful in the course, prior research strongly suggests PTs with hardcore non-teaching orientations will be unsuccessful. This is because exposure to high-quality

PETE has shown to have little impact on individuals possessing hardcore coaching orientations, even within supportive PETE conditions (Curtner-Smith et al. Citation2008).

In order to fulfill the above aims this study addressed two research questions:

Question #1: How did a PT's orientation influence their interpretation and delivery of the Teaching Games for Understanding model during PETE?

Question #2: What acculturation and professional socialization factors influenced how PTs interpreted and delivered the Teaching games for Understanding Model during PETE?

Materials and method

Participants

The research sample consisted of 14 PTs enrolled in a PETE games methods course in the United States. Following institutional ethical approval all 14 PTs enrolled in the course provided written consent to participate. Participants were a mix of second- and third-year undergraduate students, and the sample consisted of nine males and five females.

Setting

The setting was an accredited PETE program at a large state-funded university in the Northeastern United States. The PETE curriculum is underpinned by lifetime health and fitness, tactical games, curriculum development, and a range of methods courses and early field experiences. The principal investigator was also the course instructor, so a faculty colleague recruited participants and obtained consent to reduce the risk of coercion and undue influence.

Course description

The course was a games methods course that met once a week for 115 min over a 16-week fall semester. The course was a degree requirement for undergraduate students who were planning on graduating with a primary through high school physical education teaching certification. The principal investigator co-developed this course, which was designed to provide PTs with opportunities to research, experience, and reflect upon the content knowledge necessary to successfully teach a variety of individual and team sports across the lifespan. All course content was underpinned by the TGfU model (Bunker and Thorpe Citation1982), and the required course textbook focused on tactical sports concepts and skills (Mitchell, Oslin, and Griffin Citation2013). Course content consisted of the instructor delivering 18 h of practical invasion, striking and fielding, and net/wall games via the TGfU framework. The games and sports taught by the instructor (basketball, soccer, golf, softball, and tennis) were purposefully selected because they relate to popular physical education curriculum units and lifelong activities within the United States. Approximately four hours were spent lecturing, discussing, and preparing tactical lesson plans and games performance assessments instruments (GPAI). The course textbook was utilized to develop lesson plans and assessments, with 12 textbook chapter readings also being assigned to students outside of the class period (see Mitchell, Oslin, and Griffin Citation2013). The remaining

nine hours students spent participating in peer teaching activities. Course assessments included entry slips, autobiographical essay (Betourne and Richards Citation2015), lesson plans, instructional handbook, a 40-minute peer-teaching lesson, developing and administering a GPAI (Mitchell, Oslin, and Griffin Citation2013), and a post-teaching self-reflection paper. The PTs were expected to plan and deliver their peer teaching lesson in accordance with the TGfU framework, which was how the course instructor had delivered games-related content that semester. The value of this peer teaching assignment was worth 75% of the overall course grade (90 out of 120 points). The PTs were randomly allocated a sport teach by the instructor based on the equipment available at the university (football, basketball, soccer, volleyball, tennis, and baseball). Lesson plans were developed using a tactical lesson plan template adapted from the course textbook (see Mitchell, Oslin, and Griffin Citation2013) and were sent to the course instructor one week prior to teaching for corrective feedback. The lesson plan template included key TGfU components including tactical focus, tactical discussions, open-ended questioning, and modified small-sided games.

Data sources

In line with previous studies data collection consisted of autobiographical essays (Betourne and Richards Citation2015), orientation self-identification analysis (Parkes and Hemphill Citation2020), peer-teaching observations (O'Leary, Longmore, and Medcalf Citation2014), document analysis, and stimulated-recall interviews (O'Leary Citation2016). The researchers felt these data collection sources would provide the richest data regarding PTs orientations, their interpretation and delivery of TGfU, while also increasing trustworthiness. Autobiographical essay instructions (see Betourne and Richards Citation2015) asked PTs to write an essay-style paper describing their prior acculturation and current professional socialization experiences related to physical education, youth sports participation, fitness levels, and games participation. These essays were already being utilized as a course assessment prior to this study taking place. As part of this essay PTs also completed an orientation self-identification task (Parkes and Hemphill Citation2020), where they located themselves on the socialization orientation triangle (see Figure 1) based on their alignment with socialization orientation criteria. Essays were submitted during week three of the semester to reduce the influence of the course content and instructor on this data. Although there was no page limit on the essay due to the fact everyone's socialization experiences are different, the 14 essays were between 4 and 8 double-spaced pages in length. An iPad and Swivl were used to record peer-teaching observations, with the investigator also taking written field notes using TGfU observation criteria adapted from a similar study (see O'Leary Citation2016). The video footage from the lesson was also shared with the PT for self-reflection purposes. Document analysis consisted of analyzing PTs lesson plans, GPAI, instructional handbooks, and post-teaching reflections. The final data collection method employed was individual semi-structured stimulated-recall interviews, which lasted approximately 60 min. Stimulated-recall interview techniques were employed because they ask specific questions regarding an individual's behavior, in this case relating to their lesson planning and peer teaching. Questions were developed using previously collected data for each individual PT, and the questions focused on three main themes including: (1) the socialization orientation possessed by the PT, (2) how they interpreted and delivered TGfU during the peer-teaching assignment, (3) how their orientation and prior socialization experiences had influenced their interpretation and delivery of TGfU. Example questions included, 'I am going to play a two-minute video clip from your

lesson. You introduced a defender to try and distract the receiver. Why did you choose to introduce a defender?,' and 'if we take a look at the diagram where you self-identified your orientation you were located around 75% coaching and 25% fitness. Do you think this orientation influenced how you planned and delivered that lesson?' All stimulated-recall interviews were transcribed using transcription software and were checked for accuracy by the principal investigator prior to conducting analysis.

Data analysis and trustworthiness

NVivo software was employed to manage and store all sources of data. Analytic induction and constant comparison techniques were utilized to analyze the data (Goetz and LeCompte Citation1984). Data analysis was split up into four phases. During the first stage of analysis, the principal investigator compared PTs autobiographical essays to their self-identification triangles to cross check for accuracy for each individual participant. The authors, who are experienced in studying Lawson's (Citation1983a, Citation1983b) socialization theory, determined that two of the PTs orientations should be relocated from moderate fitness/ moderate teaching/moderate coaching to moderate fitness/moderate coaching. This was because they had discussed coaching and fitness experiences and interests but not teaching ones during their autobiographical essays. During the second phase of analysis data that described how the TGfU model was interpreted and delivered by each individual PT was identified. The three categories used to determine how TGfU was delivered (full, watered down, cafeteria) were based on comparable studies where preservice and beginning teachers had employed the TGfU and SE models (Curtner-Smith, Hastie, and Kinchin Citation2008, Citation2021; Vollmer and Curtner-Smith Citation2016). During the third phase of analysis data that highlighted how each individual PTs orientation had influenced their interpretation and delivery of the TGfU model was identified. During the first three stages of data analysis, a qualitative codebook was developed, and pilot tested using thematic analysis. The codebook used the qualitative recommendations provided by Richards and Hemphill (Citation2018) to categorized key themes, subthemes, operational definitions, and examples from the data set. The final stage of data analysis included searching for relationships between PTs orientations and relationships between the three different versions of TGfU that were delivered. Data codes for PTs with matching orientations (e.g. hardcore fitness), and codes for PTs who delivered the same version of TGfU (e.g. watered down) were compared to identify possible relationships. Relationship themes were then added to the final draft of the qualitative codebook.

During data analysis data triangulation, searching for negative cases, and peer debriefing techniques were utilized to enhance trustworthiness (Richards and Hemphill Citation2018). Data triangulation consisted of using multiple methods to collect data from multiple sources, and then validating the data by cross checking the coding nodes to identify apparent themes and subthemes within the data set (Goetz and LeCompte Citation1984). A risk of course instructors conducting research with their students is the influence of subjectivity. Peer debriefing was employed to reduce this risk. The researcher not affiliated with the research setting checked that data collection procedures employed were consistent with other studies, and that themes formed during data analysis were influenced by the data set and not by the course instructor's prior and current knowledge of the participants. To address reflexivity, specifically researcher effect, it is unclear to what extent PTs responses were influenced by the fact that one of the investigators was also the course instructor. However, it can be suggested that because the primary investigator was also the

course instructor that this assisted in both the development of the research design and gaining the trust of the participants (Hemphill and Richards Citation2016).

Several attempts were made to decrease the risk of researcher effect, and the authors strongly believe that studentship (Graber Citation1989) was not evident during data collection. First, the PTs course assignments were all graded in accordance with assignment rubrics that had been established in the course for several semesters prior to this study taking place. Second, PTs were not interviewed until after all course assignments had been graded and final course grades had been posted. Third, PTs were informed that they were free to withdraw from the study at any time. Finally, a faculty colleague at the institution was listed as a study liaison, and PTs could contact them if they felt they were being unfairly treated while participating in the study. Two techniques were used to limit researcher bias including obtaining permission to employ data collection techniques from comparable studies and utilizing follow-up interview questions developed from the previously analyzed data for that individual PT.

Results

Interpretation and Delivery of TGfU

Autobiographical essay data led the authors to propose that five distinct orientation types were evident within the sample (1. hardcore fitness (n = 3), 2. teaching/coaching (n = 2), 3. Moderate fitness/ moderate teaching/moderate coaching (n = 3), 4. hardcore coaching/moderate fitness (n = 2), and 5. fitness/coaching (n = 4)) (see Figure 1). In association with the most comparable studies (see Curtner-Smith, Hastie, and Kinchin Citation2008, Citation2021; Vollmer and Curtner-Smith Citation2016) data suggested that full-, watered down, and cafeteria versions of the TGfU model had been delivered by the PTs (see Table 1).

Table 1. Type of orientation possessed and version of TGfU delivered.

Participant	Orientation	Version of TGfU Delivered
James	Balanced	Full-
Vikki	Balanced	Full-
Benjamin	Balanced	Watered down
Emily	Hardcore fitness	Full-
Jessica	Hardcore fitness	Full-
Dave	Hardcore fitness	Cafeteria
Heather	Fitness/coaching	Watered down
Edward	Fitness/coaching	Watered down
Toby	Fitness/coaching	Cafeteria
Thomas	Fitness/coaching	Cafeteria
Ryan	Hardcore fitness/moderate coaching	Full-
Adrian	Hardcore fitness/moderate coaching	Watered down
Nick	Teaching/coaching	Full-
Katie	Teaching/coaching	Cafeteria

Full-version

Six PTs from four different orientation categories (see Figure 1) delivered lessons that were largely congruent with the intentions of Bunker and Thorpe (Citation1982). Data collected and analyzed from lesson plans, peer teaching videos, and observation field notes demonstrated that lessons began and concluded with modified small-sided games, were primarily student-led, and that decision-making opportunities were evident throughout the skill development section. All lessons were underpinned by a tactical focus, which was clearly identified on five out of the six lesson plans, and was also evident when observing the structure of the delivered lesson. An example of this can be found in Vikki's tennis lesson plan where the tactical focus was listed as 'using ground strokes to attack space and returning to a central position to reduce space'.

During the peer-teaching lesson observations the PTs provided the learners with frequent opportunities to make decisions on what, how, when, and why in relation to skill execution. The PTs frequently incorporated differentiated levels of defensive pressure into the initial and small-sided games, in addition to the skill development section of the lesson. Lesson plan data highlighted that this was purposefully planned out prior to teaching the lesson. During her volleyball lesson on 'spiking using width and depth', Emily delivered a simulated hitting drill that incorporated defenders. This provided hitters with areas that they needed to spike the ball away from to be tactically successful. In a similar manner, Ryan transitioned from using poly spots, to static fielders, to fully active fielders, which encouraged learners to hit the ball into space during his 'hitting into space' baseball lesson.

There were two minor flaws evident in congruence with the 'full' version of TGfU related to the timing of tactical discussions and open-ended questioning techniques. These two flaws resulted in this version of the model being referred to by the authors as 'full-' because although it was not 100% full, it was considered much more than a watered down approach. First, several PTs failed to state and discuss the tactical problem after the initial game. Emily's volleyball lesson plan listed the tactical problem as 'using the width and depth of the court when spiking.' However, during her lesson, she failed to discuss this with the class after the initial game. When asked about this flaw during the follow-up interviews those PTs provided varying reasons for omitting this important instructional component included 'nerves,' 'lack of content knowledge,' 'being conscious of time,' and 'failing to refer to their lesson plan.' As Nick explained:

> That was actually something that I saw when watching the video. It just kind of fell out of my head, even though I had a copy of my lesson plan in my pocket. I did notice that I kind of failed in trying to give the main message of the lesson (Stimulated-recall interview)

Second, three PTs had issues when attempting to use open-ended questioning techniques throughout the entire lesson. James missed several opportunities to ask open-ended questions, with Ryan and Vikki choosing to only ask them at the end of the lesson during the review. These PTs had listed several opportunities for asking open-ended questions throughout their lesson plan. However, they had failed to ask them at the right time when teaching. When asked about the reasons for omitting open-ended questions PTs responses included 'being nervous,' 'time conscious,' 'inexperienced at teaching,' and 'it slipped my mind.' As Ryan stated:

> It just kind of just slipped my mind to ask them why are we doing this? [and] why do you think this is important? I was so involved in getting through the lesson, trying to make sure everything was correct, and that [the learners] were

understanding what I was trying to put them through. But I'll definitely implement that in future lesson plans and lessons. (Stimulated-recall interview)

Watered down

Four PTs from three different orientation categories (see Figure 1) delivered the watered down version of TGfU. In congruence with a similar study (Vollmer and Curtner-Smith Citation2016), PTs who watered down the model made three common mistakes. First, PTs provided limited decision-making opportunities for learners. An example of this is that during Adrian's football lesson the tactical problem was listed as 'advancing the ball down the field through catching'. However, his catching drills were structured in a way that meant the throwing location and catching hand position were pre-determined. The defenders also responded to this pre-determined approach, and as a result, neither the throw, nor the defenders pressure caused any type of game-type decision to be made. As documented in Adrian's peer-teaching observation field notes, which were also crossed checked against the video-recorded lesson, 'most decisions were determined by the teacher, and defenders had little to no impact on the receiver's decision making'.

Second, PTs frequently taught techniques in isolation. During the skill execution part of the lessons, there was a tendency for PTs to sometimes focus more on technical development, with little to no game scenarios taking place. Defensive and opposition pressure was not always evident throughout this part of the lesson, which resulted in limited preparation for the small-sided game that occurred at the end of the lesson. Occasionally PTs would introduce opposition pressure, but this would take place briefly before transitioning to the small-sided game. This would at best provide minimal skill-related decision-making opportunities. An example of this can be seen in the field notes from Heather's lesson observation, 'technical development in isolation occurred for more than half of the skill development section. Defenders were briefly introduced into a 1v1 before the small-sided game'.

Third, PTs primarily taught using direct teaching styles. During the lesson, PTs predominantly used command and practice teaching styles to deliver instruction to the learners, and to inform them of the decisions to be made during that activity. Three out of the four PTs demonstrated competent content knowledge and the use of correct cues. However, despite a genuine attempt to do, so it was evident that these PTs could not successfully structure this part of the lesson the way Bunker and Thorpe (Citation1982) had proposed. An example of this occurred during Benjamin's basketball lesson that focused on 'using effective passing to maintain possession of the ball.' According to the field notes, 'the teacher makes most of the decisions and tells the learners exactly what to do and how to do it in a direct manner. The only exception is during a short keep away possession game'.

Cafeteria version

Four PTs from three different orientation categories (see Figure 1) delivered the cafeteria version of TGfU. The main difference between the cafeteria version and the watered down version was that PTs did not really make any attempts attempt to incorporate decision-making or game-related practices into the skill development section of the lesson during the cafeteria approach. The previously mentioned watered down group attempted to develop skills, but quite often they failed to do so. However, the cafeteria group made no real effort to develop learners' skills. They delivered line drills, repetitive technical practice in isolation, with no real game context practices

being planned for, which was evident on their lesson plans. In his post-teaching self-reflection Toby stated that in the future he needed to better implement 'game relevant drills,' because in the keep away game if some defenders were 'without a ball that it would simulate defenders much better.' Both Dave and Thomas taught invasion games. However, no defensive pressure was present or planned for when practicing shooting during their respective soccer and basketball lessons. Lesson observations and field notes highlighted that learners were primarily starved of opportunities to make decisions regarding what to do, how to do it, when to do it, and why they should be doing it. In fact, a common field note comment in relation to the lesson being learner centered was 'teacher makes almost all of the decisions.' In alignment with the findings of Curtner-Smith and colleagues (Citation2008) the data suggested that PTs who taught the cafeteria version did nothing more than incorporate parts of the model (initial modified game, small-sided game, or game appreciation) into traditionally taught games lessons.

Influence of orientation on interpretation and delivery of TGfU

One important relationship was evident when comparing the type of orientation possessed by PTs and the version of TGfU they delivered. In their comparable study, Curtner-Smith and colleagues (Citation2008) hypothesized that individuals with hardcore coaching orientations would be unlikely to deliver the full version of SE, even if they experienced high-quality PETE. However, in contrast, the findings from this study suggest that some PTs who possessed hardcore fitness or hardcore coaching orientations were capable of delivering the full- version TGfU to their undergraduate peers. Data suggests that five PTs possessing hardcore fitness and hardcore coaching orientations delivered full- (n = 3), watered down (n = 1), and cafeteria (n = 1) versions of TGfU (see Figure 1 and Table 1). This is positive news for PETE faculty, because it suggests that PTs with hardcore coaching and hardcore fitness orientations have the potential to deliver the higher-quality full- version of innovative games models such as TGfU during PETE. The data suggested that PTs acculturation and professional socialization experiences had influenced their ability to successfully implement the higher-quality full- version of TGfU.

Influence of acculturation on version of TGfU delivered

Sporting expert

As discussed in a previous study, it was suggested that PTs with fitness orientations possessed this type of orientation due to the fitness goals that contributed to their elite-level youth sports participation (Parkes and Hemphill Citation2020). It was evident that participation in sport to a high level had resulted in hardcore coaching and hardcore fitness PTs becoming knowledgeable experts in the sports they had randomly been assigned to teach. This clearly aided them in delivering the higher-quality full- version of TGfU. During the interviews, three of the PTs who possessed hardcore coaching and hardcore fitness orientations claimed that 'being an expert' in the sport they were randomly assigned to teach helped them to deliver the model more effectively. This was because they were already familiar with the skills, rules, and content knowledge associated with years of participation in that sport. During the stimulated-recall interviews, Ryan stated he had 'been playing baseball since I was younger, so knowing techniques is going to help me'. In support of these findings, the only PT who displayed a hardcore fitness orientation and

delivered the lower quality cafeteria version of TGfU stated that he would have found teaching easier had he been allowed to select a sport to teach that he had experience in:

> If I had been doing baseball it would get a lot easier. I probably wouldn't have had to think about it too much. I'm not a [soccer] expert, and I think that it affected me in the way that it could have been a lot better if I had prior knowledge. I would have preferred to pick my own sport because I have coaching backgrounds and experience of baseball and softball so I probably could have been a little better teaching those things. (Dave, hardcore fitness orientation, stimulated-recall interview)

The sports assigned to PTs for the peer-teaching assignment were chosen randomly, without any prior knowledge of the PTs sporting background being considered by the course instructor. Those PTs fortunate enough to be assigned a sport they had years of experience playing all delivered the higher-quality full- version of TGfU.

Influence of youth coaches

The PTs possessing hardcore coaching or hardcore fitness orientations that delivered the full-version of TGfU stated that the lessons had been influenced by their former youth sports coaches during the acculturation stage. Despite PTs being sophomores and juniors in a four-year degree program they still referred to some of the content knowledge and instructional methods observed by their youth coaches. Many of the PTs had been exposed to lots of different coaches, with some coaches also teaching their physical education lessons. In his interview, Ryan recalled that 'all of the teachers who taught me in high school were coaches.' Therefore, it is probably not a coincidence that those PTs not only possessed hardcore coaching/moderate fitness orientations, but that their lesson delivery was also 'influenced' by the instructional methods of their former coaches. During her stimulated-recall interview, Emily described how her former track and field fitness coach gave 'clear explanations and demonstrations.' She emulated her coach because she 'really wanted to explain things visually so they could understand what they were doing.'

Influence of professional socialization on version of TGfU delivered

Initial modified game

The three PTs who delivered the full- version of the model had been influenced by instructional content delivered during the course. Data analysis highlighted three themes regarding the influence of course content on PTs delivery of TGfU. First, despite never having been exposed to the TGfU model prior to enrolling in this course these PTs felt that starting the lesson with a modified game was a great way to begin the lesson. Justifications for its use included providing an appropriate warm up, increasing physical activity time, and assessing student progress between initial and small-sided games. They all felt that initial games result in more 'enjoyment' and 'engagement' by motivating students to 'respond positively.'

> When [the instructor] taught the lessons, I liked starting the game first because I was able to see where I was at and where the [learners] were at. Seeing the

progression throughout the lesson was really cool. (Emily, hardcore fitness orientation, stimulated-recall interview)

Game context

It was clear that all four PTs possessing hardcore coaching or hardcore fitness orientations who delivered the full- version placed a high level of importance on teaching within the game context. For invasion, net, and striking and fielding games this included introducing some degree of static, passive and/or fully active opposition pressure. Lesson observation data demonstrated that Jessica, and Emily all included defensive players in their offensive soccer and volleyball lessons. Ryan also transitioned from static to active fielders during his baseball lesson. The use of opposition when focusing on offensive skills promotes decision-making within the game, in what several PTs referred to as a 'realistic' setting:

> You don't want to hit the ball to the defender, you want to get on base, and you want to be able to score for your team. If you're able to hit the open space you have such an advantage (Ryan, hardcore coaching/moderate fitness orientation, stimulated-recall interview)

Peer teaching

Several of these PTs were influenced by teaching their peers. Some PTs were positively influenced by observing their peers who had taught before them. These PTs believed that they had improved their lessons through observing examples of good and bad practice:

> [I was influenced by] the previous lessons that were before me. Examining their teaching and [thinking] I'm not going to do that in my lesson, or that's a really good idea, I want to do that. (Emily, hardcore fitness orientation, stimulated-recall interview)

In contrast, Dave, who delivered the cafeteria version had been negatively influenced by teaching his peers. He made assumptions that his peers were already knowledgeable enough, which resulted in him not delivering key components featured his lesson plan. This could also be tied back to the previously mentioned theme on sporting experts because Dave was also a non-expert in the sport he taught. This may have also decreased his confidence when teaching peers who may be more experienced than him in that sport:

> I'm assuming the students were all at this age. If I were teaching students that the lesson was designed for it might have been a little bit more specific. At this point I think that they understand that the goal of shooting is to attack the goal. (Dave, hardcore fitness, stimulated-recall interview)

Discussion

Prior research suggests PTs often encounter conceptual and instructional difficulties when delivering TGfU during PETE (Li and Cruz Citation2008; Vollmer and Curtner-Smith

Citation2016). Utilizing the findings of a comparable study investigating teachers' interpretation and delivery of the SE model (Curtner-Smith, Hastie, and Kinchin Citation2008), it was hypothesized that PTs with hardcore coaching and hardcore fitness orientations would be unable to deliver the full version of TGfU. However, the findings from this sample of PTs suggest it is possible for PTs with hardcore coaching and hardcore fitness orientations to deliver a similar full-version of the model to their undergraduate peers. The investigators recommend that the following pedagogical strategies are considered when faculty are delivering games methods courses to PTs with hardcore coaching or hardcore fitness orientations.

First, allowing PTs to select sports that they have playing and coaching experience in may increase the quality of TGfU delivery. The data from this sample suggested that PTs who had experience in the sports that they were randomly assigned for peer-teaching delivered the better quality full- version of TGfU. In contrast, the one PT who was assigned to a sport he had limited experience in delivered the cafeteria version of the model. It has been suggested that PTs with hardcore coaching orientations were influenced by acculturation experiences grounded in competitive sports participation (Lawson Citation1983b). More recently it has been suggested that PTs with hardcore fitness orientations are influenced by acculturation experiences underpinned by elite sports participation (Parkes and Hemphill Citation2020). Therefore, it seems logical to allow PTs to select a sport in which they have content knowledge and confidence. This would allow PTs to primarily focus on understanding the TGfU framework, which is a complex instructional model that none of the PTs had heard of or experienced prior to enrolling in this course.

Second, the findings from this study and previous studies suggest that youth coaches have a significant influence on recruits during the acculturation stage (Parkes and Hemphill Citation2020; Curtner-Smith, Hastie, and Kinchin Citation2008; Vollmer and Curtner-Smith Citation2016). The data from this study suggested that the hardcore coaching and hardcore fitness PTs who delivered the full- model had been positively influenced by previously observed instructional content and methods that aligned with TGfU. To support this recommendation comparable studies have found that not all youth coaching experiences are positive, and these observations often do not align with innovative games frameworks (Curtner-Smith, Hastie, and Kinchin Citation2008; Vollmer and Curtner-Smith Citation2016). Therefore, it is recommended that faculty reinforce positive instructional content and methods that PTs retrospectively identify during assignments such as the autobiographical essay, to promote good instructional practice. In contrast, it is important that poor examples of retrospective instruction are also addressed if they are not compatible with the TGfU framework.

Third, even though none of these PTs had experienced or heard of TGfU before, they all felt that it was a suitable model to employ in schools. The PTs bought into the initial game and teaching within the game context components of the TGfU framework. They citied verbal and demonstrated instructional examples to justify why this approach was suitable to increase engagement, enjoyment, and success during realistic game scenarios. The course instructor is a big advocate for TGfU which could have been one reason why PTs bought into the model. Another reason is that the course instructor had an extensive background in physical education teaching, sports coaching, and undergraduate PETE games instruction which ties into previous literature regarding the impact of quality PETE on PTs delivery of SE (Curtner-Smith, Hastie, and Kinchin Citation2008). The majority of PTs were also positively influenced by observing their peers teach prior to them teaching. Therefore, it is recommended that faculty experienced in games and sport pedagogy provide PTs with practice peer-teaching opportunities prior to formal peer-teaching assignments whenever possible.

The findings from this study provide a positive outlook for the field of occupational socialization and TGFU. The data suggests that recruits who possess hardcore non-teaching orientations and are often considered less compatible with innovative PETE (Curtner-Smith Citation2009) have the potential to deliver high-quality versions of TGfU to their peers during the professional socialization stage. This level of success during PETE has the potential to inspire early career physical educators to also employ the model in a formal school setting. Future research is clearly required, and the authors suggest that investigation into instructional model compatibility among PTs with fitness and hardcore non-teaching orientation should be pursued.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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