

GAME-CENTERED APPROACHES IN A PETE PROGRAM

ENFOQUES CENTRADOS EN EL JUEGO EN UN PROGRAMA DE FORMACIÓN DE DOCENTES DE EDUCACIÓN FÍSICA

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ABSTRACT

In this article we will describe the use of Game-Centered Approaches (GCAs) within an undergraduate Physical Education Teacher Education (PETE) program. Specifically, our intent is to show the progression of how GCAs are implemented as well as the GCA experiences pre-service teachers receive within this program. The specific program, at Kent State University (KSU) in Ohio, USA, is a typical four year teacher education licensure program (five years if students choose to also pursue a Health Education teaching license). It includes general education, content-based, and pedagogical courses, culminating with a student teaching field experience. Students are first exposed to, and then increasingly study and implement GCAs as they progress throughout the program. This manuscript is organized chronologically in that first we describe the prior experiences of our undergraduate students and their ability to understand GCAs as an innovation. Second, we outline the practical experiences provided to students early in their program of study. These experiences provide initial exposure to GCAs across all game categories (invasion, net/wall, striking/fielding, target – Almond, 1986) and combine the implementation of GCAs with the Sport Education curriculum model (Siedentop, Hastie & van der Mars, 2011). Third, we describe the latter stages of the PETE program in which the emphasis transitions from GCA content to GCA pedagogy. Teaching methods and content courses include the pedagogy of GCAs at both the elementary and secondary levels, and Ohio's state assessment procedures during student teaching require a focus on assessment of children's learning while participating in GCAs.

RESUMEN

El presente artículo describe un programa de formación en la Enseñanza Comprensiva del Deporte (ECD) dentro de un plan de estudios de profesores de Educación Física. El principal interés de este trabajo es mostrar la progresión en la implementación de la ECD, así como las experiencias durante las prácticas de enseñanza sobre este enfoque. El plan de estudios de la Universidad de Kent State (Ohio, EEUU) es

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un típico programa de cuatro años de licenciatura de formación de profesores (cinco años si los alumnos eligen continuar el programa en Educación para la Salud). Incluye materias de educación general, de contenido y de didáctica, culminando con prácticas externas en centros educativos. A lo largo del plan de estudios los estudiantes primero experimentan la ECD y posteriormente la estudian e implementan. El presente artículo está organizado cronológicamente, la primera parte consta de lo que describimos como las experiencias previas de nuestros alumnos y su capacidad para comprender la ECD como innovación. Segundo, resumimos las experiencias aportadas a los alumnos en las primeras fases del plan de estudios. Estas experiencias aportan una primera exposición a la ECD en todas las categorías de juegos deportivos (invasión, red y muro, campo y bate, y blanco y diana – Almond, 1986), combinada con el modelo de instrucción de Educación Deportiva (Siedentop, Hastie & van der Mars, 2011). Tercero, describimos la última etapa del plan del programa de formación, en el cual se pone énfasis en la transición del contenido de la ECD a la didáctica de la ECD. Las materias de metodología y de contenido incluyen la didáctica de la ECD a los niveles de Educación Primaria y Educación Secundaria, así como los procedimientos de evaluación establecidos por el estado de Ohio, los cuales requieren centrarse en los aprendizajes de los alumnos durante su participación en la ECD.

KEYWORDS. Tactical Games Model; pre-service teachers; assessment; pedagogy.

PALABRAS CLAVE. Enseñanza Comprensiva del Deporte; alumnos de prácticas; evaluación; didáctica/pedagogía.

1. INTRODUCTION

The lived experiences of Kent State University PETE students are probably typical of those in many institutions; most have been successful high school athletes in a variety of sports, and some in multiple sports. Some of our students have received partial or full scholarships for athletics on one of our Division I sport teams. As such they are, for the most part, quite technically skilled performers in one or more of the game categories though, like many skilled performers, they take for granted their own level of skillfulness and so lack the understanding of what their proficient performance involves either technically or tactically. The American youth and high school sport system has increasingly lead to a high degree of specialization, with incoming students having spent full calendar years becoming proficient in a single sport instead of participating in a few sports over the course of the academic or calendar years (Siedentop, 2009; Wuest & Fiset, 2014). Many of these sports are within one of the GCA games categories, thus, students are at least proficient in one sport and can then transfer their understanding of that sport to others within the same category (Almond, 1986; Griffin & Patton, 2005; Hopper, Butler & Storey, 2009; Mitchell & Oslin, 1999, Oslin & Mitchell, 2006). However, for those who have specialized in a sport such as wrestling, track and field, or swimming, the focus of their understanding and performance in games settings can be, and often is, a challenge.

Our student's prior sport experiences have often included being coached by coaches who focus on technique, and who present practice sessions that involve large amounts

of repetition of skills practiced out of their game context. As a result, many students have become primarily coach-dependent performers and this has resulted in poor decision making abilities. Indeed this was one of the concerns that originally led to the conception of Bunker and Thorpe's Teaching Games for Understanding (TGfU) model (Bunker & Thorpe, 1982). Our students are unaccustomed to being asked questions or being made to think and make decisions for themselves, particularly in the "major" sports of basketball, (American) football, and baseball or softball. Therefore, the early PETE program Game Performance courses are focused on GCAs in each game category, using question-driven approaches to foster decision-making and problem-solving processes in our students. Specifically the GCA used in our program is characterized by Metzler (2011) as the Tactical Games Model (TGM). This model was developed by Mitchell, Oslin and Griffin (1997; 2013) and is heavily based on the original TGfU model of Bunker and Thorpe (1982). Our purpose then is to describe the implementation of TGM with specific focus on the progressive experiences that students receive, leading to their own use of TGM with their school-based teaching experiences.

2. GCAS IN EARLY PROGRAM GAME PERFORMANCE COURSES

During their first and second year at KSU, PETE students take courses titled Development and Analysis of Target and Fielding Games, Development and Analysis of Invasion Games, and Development and Analysis of Net Games. Target and Fielding games are combined into one course due primarily to the restrictions on the number of courses and credit hours that can be included in the degree program. Furthermore, of the four games categories, most likely due to reasons of space, equipment availability and/or climate these are the two least implemented in K-12 physical education programs, resulting in students' limited content knowledge and levels of skillfulness. In this section, we present examples of course content and assessment from the Target and Fielding Games and Invasion Games courses, each of which is taught by one of the authors. Each course includes forty-five contact hours with students, the majority of which is practically based. Consistent across these courses is the use of a common course textbook to ensure that students read, reread and (hopefully) understand the critical components of GCAs. Specifically, we focus on the use of game driven lessons that use a) game modification and conditioning as a way of setting tactical problems, b) guided questions as a way to focus student attention on the problems presented and appropriate solutions, c) contextually appropriate, game-like skill practice of skills and/or movements necessary as solutions to the problems, and d) game play as a means of applying the learned skills and/or movements to improve overall game performance. The two courses are taught in sequence in the fall semester (late August until early December) with the Target and Fielding Games course preceding the Invasion Games course, making the former a critical course in terms of setting the stage for an understanding of GCAs.

The Target and Fielding Games course focuses on introducing students to GCAs. The first half of the course, largely due to the weather, involves fielding games because these require the use of outdoor spaces. Instruction is game based and, primarily using

softball as a culturally significant game in the USA, focuses on the progressively complex tactical problems of getting on base, advancing the runner, and defending space. During this part of the course students complete formal assessments that require them to analyze both technique and game performance. Analysis of individual performance and technique is conducted as a self-assessment of strengths and weaknesses that is completed from a video of one's own performance on selected aspects of technique. Game performance is analyzed through instructor and peer assessment done in a live environment using a version of the Game Performance Assessment Instrument (GPAI – Oslin, Mitchell & Griffin, 1998; Mitchell et al., 2013) Rubrics for the evaluation of these assessments are presented, respectively, in **Tables I and II** below.

Table I. Criteria for the Technique and Performance Analysis assignment

Unacceptable Level (0-20)	Acceptable Level (21-25)	Target Level (26-30)
<ul style="list-style-type: none"> • Inaccurate listing of ideal skill performance (less than 3 critical elements for each phase). 	<ul style="list-style-type: none"> • Accurate listing of ideal skill performance based on appropriate resources (at least 3 critical elements for each phase). 	<ul style="list-style-type: none"> • Accurate listing of ideal skill performance based on appropriate resources (at least 3 critical elements for each phase).
<ul style="list-style-type: none"> • Inaccurate evaluation of performance relative to ideal performance. 	<ul style="list-style-type: none"> • Accurate evaluation of performance relative to ideal performance. 	<ul style="list-style-type: none"> • Accurate and detailed evaluation of performance relative to ideal performance. Errors are identified.
<ul style="list-style-type: none"> • General tasks are given to address discrepancies between actual and ideal performance. Includes less than 3 tasks for each skill. 	<ul style="list-style-type: none"> • Referenced tasks to address discrepancies between actual and ideal performance, including progressions of learning activities. Includes at least 3 tasks for each skill. 	<ul style="list-style-type: none"> • Referenced tasks to address discrepancies between actual and ideal performance, including progressions of learning activities and game application tasks. Includes at least 3 tasks for EACH skill.
<ul style="list-style-type: none"> • Referenced less than 2 resources (not including your MOG book). 	<ul style="list-style-type: none"> • Referenced at least 2 resources (in addition to your MOG book). 	<ul style="list-style-type: none"> • Referenced at least 2 resources (in addition to your MOG book).

Table II. Criteria for Peer Game Performance Analyses

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Table II. Criteria for Peer Game Performance Analyses

Unacceptable Level (0-17)	Acceptable Level (18-20)	Target Level (21-25)
<ul style="list-style-type: none"> Criteria are not adequately defined relative to each component of game performance observed. 	<ul style="list-style-type: none"> Criteria are defined relative to each component of game performance observed. 	<ul style="list-style-type: none"> Criteria are defined and detailed relative to each component of game performance observed.
<ul style="list-style-type: none"> Data sheet contains insufficient data on which to base the game performance narrative and/or is not presented on the Google Site. 	<ul style="list-style-type: none"> Data sheet is provides adequate data on which to base the game performance narrative, and is presented on the Google Site. 	<ul style="list-style-type: none"> Data sheet is detailed, provides sufficient data on which to base the game performance narrative, and is presented on the Google Site.
<ul style="list-style-type: none"> Game performance narrative does not account for all team members or contains insufficient information. 	<ul style="list-style-type: none"> Game performance narrative refers to each team member and describes his/her game performance in terms that are supported by the data. 	<ul style="list-style-type: none"> Game performance narrative refers to each team member and describes his/her game performance in detailed terms that are supported by the data.

In the case of both rubrics, student scores (from 30 and 25 respectively) contribute to portfolio grades, which in turn contribute to the overall grades within the striking/fielding and target game course. Portfolios are constructed in an online environment using Google Sites. Portfolio scores constitute fifty percent of the overall grade, with the remaining fifty percent comprised of a combination of instructor's ratings of game performance and problem diagnosis frameworks described below.

During the Target and Field Games course, students are expected to complete two problem diagnosis frameworks (see Figure 1 for an example), one each on a target and field game (Fisette & Mitchell, 2010). These frameworks, are based on the four-step model of qualitative skill analysis (preparation, observation, evaluation, intervention) proposed by Knudson and Morrison (2002) . The assignment requires students to observe players' performance in target and field games (at the youth sport, high school, or adult recreational/club leagues) and use the 'Problem Diagnosis Frameworks' to 'diagnose' potential problems the players/team encounter during live game play. Throughout the game, students are to record the following information: a) Are players having problems scoring or preventing their opponents from scoring? If so, what problems are they having?, b) Based on the problems diagnosed, describe how you would instruct them to adjust/make changes to their performance to improve their game play., c) As game play continues, does the player/team make adjustments to the problem(s) you diagnosed? If so, what adjustments did they make? What were the outcomes of their adjustments?, and d) Describe the context of the games observed (i.e., descriptions of the teams/players, the environment, coaching staff, etc.). The goal of this assignment is for students to utilize their content knowledge within these game categories as well as their understanding of TGM to demonstrate their ability to

diagnose problems within game play and hopefully being able to design solutions to the problem, which is a salient component of teaching. As stated above, the two problem diagnosis assignments constitute ten percent of students' overall grade in the class. Each problem diagnosis is due at the end of each game category unit, with the intent that they will utilize the content knowledge they learned to complete the assignment. Quite often, it is actually this assignment that informs the students how much they have learned and how they come to observe and analyze these games through a different lens than prior to taking the course.

Connections with other fielding games are made through instruction in cricket where similar tactical problems are addressed, specifically focusing on defending space as fielders and scoring runs as batters. Following this, the course proceeds to a focus on target games with time spent in unopposed target games such as golf and bowling and opposed target games such as cornhole, bocce, croquet and shuffleboard. Here students investigate tactical components of game play such as pre-shot routines and decisions, and the use of intermediate targets. The course concludes with Games Making sessions designed to help reinforce the principles of target and fielding game play.

Instruction in the Invasion Games course has three main foci: 1. Reviewing the TGM model and providing model lessons to ensure continued understanding, 2. Ensuring an appreciation of the principle of transfer as it applies to invasion games, and 3. Providing an experience of Sport Education and integrating this curriculum model with TGM. Each of these course components will be addressed individually. Early instruction in practical sessions focuses on teaching model lessons that follow the TGM. During these lessons the instructor periodically "steps outside" the lesson to help students identify, through discussion, the purpose of the game modifications being applied, the design of the questions being asked, the skill or movement practice task extensions and progressions being used, and game design to ensure application of skills to the game setting. Given prior exposure to TGM in the Target and Fielding Games course, this review and repetition is needed by students to varying degrees, but sufficiently so for it to be an important early feature in the Invasion Games course. These review and model lessons typically take place during the first few sessions when the focus is usually on the concept of ball possession as a feature of offensive play.

This brings us to the second important feature of the Invasion Games course, that being the principle of transfer across invasion games. This is particularly important in invasion games since this category has more transfer across games than any other category, particularly in terms of tactics used both offensively and defensively (Harvey & Jarrett, 2013; Martin, 2004; Mitchell et al., 2013). From an offensive perspective, instruction focuses on solutions to the increasingly complex tactical problems of ball possession, attack and penetration to a goal, creating and using space. Then defensively instruction addresses the problems related to defending space, defending a goal, and winning the ball back. In many instances a problem is addressed in multiple games within one session, specifically to illustrate how the problem is common to multiple games within the invasion game category, and also to show how similar skill practice

settings can be used in different games. The content outline presented in **Table III** below shows the sequence of instruction from the most recent offering of the course.

Table III. Invasion Games course content outline

Session Number	Instructional Content
1	Teams/Roles/Routines Games Making - intro to invasion games Principles of play - decision-making hierarchy of options and safety/risk trade offs
2	Maintaining possession - pass/receive – soccer and ultimate Frisbee
3	Maintaining possession - pass/receive with direction – floor hockey, field hockey and lacrosse
4	Maintaining possession – support play off the ball - team handball, soccer and speedball
5	Maintaining possession - basketball - triple threat/pivot rugby - pass and support
6	Attacking goal - shooting – soccer, hockey(push and slap/drive shot), lacrosse and team handball
7	Video-taping of skill performance - Competency 1 - on ball skill analysis
8	Attacking goal - post/target play - basketball/soccer shooting - basketball – lay-up, jump/set shot
9	Creating and using space – V and L cuts, and pick and roll – basketball Checking runs – soccer
10	Creating space - pass patterns – football Assessment of game performance (i)
11	Assessment of game performance (ii)
12	Defending space - marking/pressure - football/soccer dictating the direction of play – basketball
13	Defending the goal - goalkeeping - soccer/hockey box out and rebound - basketball
14	Defending the goal (continued)
15	Winning the ball - block tackle - soccer/hockey/lacrosse intercept/steal - handball/Frisbee
16	Winning the ball (continued)
17	Sport Education season play offs
18	Sport Education season play offs and championships

Assessments in the Invasion Games course mirror those already completed by students in the Target and Fielding Games course. Students complete an electronic portfolio that includes competencies requiring them to analyze both their own skill performance from video tape and the game performance of their teammates using a version of the Game Performance Assessment Instrument (Mitchell et al., 2013). Again, as with the striking/field and target games course, the portfolio is worth fifty percent of the course grade with the remaining fifty percent awarded for a combination of the instructor's observations of student's own game performance and their completion of external game observations focused on specific tactical problems.

The third valuable feature of the Invasion Games course is the integration of TGM with the Sport Education curriculum model (Siedentop, Hastie & van der Mars, 2011). The course is organized with students placed into teams for the entirety, with students adopting roles with their team (coach, equipment manager, athletic trainer, sports reporter, etc). The teams play a regular season schedule and officiate their own games on a rotational basis, with culminating play offs and championship games played in the closing sessions. Fair play is emphasized by the awarding of league points when appropriate and the festivity of sport is ensured through an end of season celebration. The regular season schedule is the critical feature of Sport Education in terms of its integration with TGM. This is where we emphasize the use of the closing game in a TGM lesson as also being the regular season game within a Sport Education regular season schedule. This closing game might at first be modified or conditioned as necessary to emphasize the tactical focus of instruction, followed by free play in which effective implementation of tactical awareness is expected and is the object of instructor feedback. In addition all modified games and practice tasks within the TGM lesson can be done easily in Sport Education teams (Mitchell et al., 2013).

Taken together, the Striking and Fielding Games and Invasion Games courses provide students with sufficient background in TGM to enable them to take that understanding forward to the pedagogical sequence later in the program. The next section of this manuscript addresses that sequence.

3. SENIOR LEVEL METHODS/CONTENT COURSES

As outlined above and similar to many PETE programs, the content-based courses during students' first and sophomore years, lead up to our pedagogical offerings in their junior and/or senior years. As shared above, TGM is the instructional model utilized in the content-based, game performance courses, where we also highlight the pedagogical methods we employ throughout our lessons. However, it is not until the students enter their junior/senior level methods and content courses where greater emphasis is placed on the pedagogical aspect of TGM. For the students who are in the physical education licensure track, they are three semesters removed from the content-based, game performance courses, whereas the combined health and physical education majors are two years removed. This poses a challenge for students in their attempt to bridge

their practical experiences with the use of models-based education (Metzler, 2011; Mitchell et al., 2013).

At KSU, our pedagogical, field-based experience courses are offered in two separate semesters; one each at the elementary and secondary levels, where students take two courses back to back that combine methods and content. These combined courses meet for five hours, twice a week, for a total of 10 hours meeting time. We believe that methods and content are synergistic and necessary for students to enhance their pedagogical knowledge and content knowledge. The vast amount of meeting time allows students to have prolonged field experiences in the local public schools where they have the opportunity to gain practical experience based on the theoretical and pedagogical knowledge they have received throughout their coursework. Although TGM is a component in both the elementary and secondary methods and content courses, the primary focus for this article will be at the secondary level.

Over the course of the secondary semester, we offer a variety of learning experiences for our students to gain theoretical and pedagogical knowledge about TGM, which includes assigned readings and classroom-based discussions and activities, modeling on the gym floor, and field-based experiences. Within the first couple of weeks of the semester, students learn about the array of instructional models (Metzler, 2011) and curriculum models (Lund & Tannehill, 2015) that are designed for teachers to establish a quality physical education program that is standards-based and student-centered. Since we 'live the curriculum' with the tactical games and sport education models (Mitchell et al., 2013; Siedentop, Hastie & van der Mars, 2011) in our content-based games courses, students can identify some of the components of sport education (e.g., the different roles and responsibilities); however, their pedagogical understanding of TGM is limited at best. Class discussions and activities center on the purpose and main characteristics of the model (e.g., games classification system, tactical problems, on-the-ball skills and off-the-ball movements, game-practice-game lesson format), where we highlight the salient factors of each component and utilize the Teaching Sport Concepts book (Mitchell et al., 2013) as a resource. Students have an understanding of the games classification system as evidenced by their ability to define and describe each of the games classifications and the importance of skill-based practice tasks during class discussion and on written quizzes and exams. However, identifying the tactical problem and creating a lesson that is problem-based can often be a challenge for them.

Thus, we bring to life the theoretical concepts of TGM by teaching sample middle school lessons on the gym floor to demonstrate how a TGM lesson would look like in a school setting. After the 40-minute lesson (e.g., maintaining possession by passing and catching in ultimate Frisbee, creating space by pushing the opponent back with the overhead clear in badminton), we engage in discussion about the content and methods employed over the course of the lesson. Students identify the game-practice-game format, the focus on the tactical problem, but most of their reflections are based on pedagogical methods (e.g., feedback, demonstrations, teacher positioning and monitoring, management). Content that needs further discussion and demonstration is

how to expose the tactical problem by using game conditioning to modify and/or make changes to game play to not only expose the tactical problem, but provide a game context that all students can partake. This leads into discussions about the importance of modifying game rules and equipment to increase students' opportunities to being successful. For example, when teaching volleyball, a very challenging game to learn for middle school students due to the fine motor skills and hand-eye coordination required, we provide modifications such as having longer, yet narrower courts by dividing one volleyball net in half, thus, having two small-sided games allowing four teams to play at one net. Furthermore, we utilize training balls instead of regular volleyballs so students can be more successful. Only two sample lessons are provided to the students before they begin to develop their lesson plans for their field experiences.

Throughout the secondary methods and content block, students have the opportunity to teach approximately 10 lessons at the middle school level and four at the high school level. We divide the students into small groups for their field experiences so they have the ability to digitally record each field experience lesson, which allows them to complete systematic observation forms and engage in self-reflection after their teaching lesson is over to provide them with data on their actual teaching performance. Although other content is taught in some of the schools during this time such as fitness and dance, all of our students have the opportunity to teach a sport-related game at the middle or high school levels. As with most students at this point in their teacher education licensure program, formulating lesson plans is a challenging task, particularly in terms of aligning their lesson objectives, the content to be taught, and the means of assessment. It would seem as if it would be easier for students teaching sport-related games since the Teaching Sport Concepts book (Mitchell, et al., 2013) provides an extensive amount of sample lesson plans for teachers and students, but unfortunately, it is not. Research on novice teachers suggests that concerns with managing student behavior and planning appropriately are common for beginning teachers (Behets, 1990; Shoval, Erlich & Fejgin, 2010) and, similarly, our own students are exceedingly worried about their management and teaching to the lesson plan. As a result they often do not center their lesson plan on a tactical problem and they *tell* the students what the tactical problem and solutions are, which eliminates the opportunities for problem-solving and critical thinking; the purpose of the model. For example, during their field experiences, often times, they teach lessons within a sport-related game unit, leading them to utilize the Mitchell, et. al text (2013) and ultimately, TGM in their lessons. In their lesson plans, they will identify the lesson focus as 'passing and dribbling' in a basketball unit instead of 'maintaining possession of the ball'. Both in their lesson plans and during instruction, they will inform the middle or high school students of the tactical problem when providing the goal of the game: "The goal of the game is to maintain possession of the ball". After the first game, they often forget or neglect to engage in questioning with the students and instead get directly into a demonstration of the situated practice. Some students attempt to engage in question and answer to provide students with the opportunity to solve the problem, however, they answer their own questions instead of allowing sufficient wait time for students to

respond or they accept one answer to one question and they proceed with their instruction. Quite often, the tactical awareness (i.e., cognitive) focus of TGM is lost in lessons taught by our secondary students within the first few minutes of their field-based teaching experiences.

Prior to their first or second teaching, we provide feedback on their lesson plans challenging them to utilize the game-practice-game format, to 'not give away the goods' and to design game goals and conditions, which then influences the modifications they formulate, but they have difficulty making that connection. On occasion, where a model or a support teacher might help, the course instructors might step onto the gymnasium floor and either teach a model lesson or co-teach along with the pre-service teacher. During reflection and discussion after their first couple of teaching experiences, the way our students feel about and reflect upon their lesson is usually based on their perception of appropriate student behavior (or lack thereof), a concern about the learners being 'busy, happy, and good' (Placek, 1983), than about the implementation of the model, best practices, and emphasis on student learning. Their focus on management and not instructional best practices is rather common with pre-service teachers in all content areas; however, having pre-service teachers implement specific curriculum models that has a specific focus and framework can add another challenge to them when attempting to implement all they have learned in the university setting (Harvey, Cushion & Sammon, 2014; Li & Cruz, 2008).

Fortunately, after each teaching day, we return to the university for a debriefing session. At that time, we delve further into the Tactical Games Model. We revisit the purpose of the model, break down each phase of the lesson sequence and offer examples based on the lessons they taught that morning: 1. Game 1 – goals and conditions, established to expose the problem within a short 2-3 minute game, 2. Questioning – asking questions that are based on the tactical problem, leading the students to problem solve the solution to the problem (i.e., skills/movements) that lead to the situated practice task, 3. Situated Practice Task – game-like, skill/movement focused, progression of tasks, use of extensions to challenge/simplify, and 4. Game 2 – reestablish goals and conditions, rewarding students for using the skill/movement they just practiced, spending more time in the second game to see if their game performance has improved due to the time spent on the practice task(s). We suggest for them to use index cards and write down notes as to the goals and conditions of the game as well as the questions they want to pose to the students. We understand how challenging it is to ask critical thinking questions to students that are developmentally appropriate without giving away the information. But after their initial teaching experiences and discussions during debrief, our students do show improved alignment of objectives, content and assessment in their planning, and an improved ability to ask and respond to questions aimed at developing critical thinking. Students begin to utilize the lesson plans already developed in the TGM book (Mitchell et al., 2013) as a framework for their own sport-related game lesson, which helps guide the game-practice-game lesson sequence. If all of the criteria of the model are not included, their lesson plan is not accepted until they can demonstrate their understanding of the model. Their lesson plans shift to a game-practice-game format and include game goals and conditions,

as well as critical thinking questions *after* the first game. Due to their enhanced planning, this translates to their instructional practices in their field experiences as they begin to implement the TGM. During the lessons, students write out questions on index cards (from the TGM book) and keep it in their pocket or carry a clipboard with their lesson plan to help guide their questioning. These questions help to a point, but our students take time to develop their abilities to think on their feet and probe a little more when they don't at first get the preferred answer. For example, answers to a question such as "how can your team keep possession of the ball more easily" can lead to a number of different responses (passing better, moving to open space, spreading out, communicating) and patience and redirecting might be needed to guide learners to a response that makes sense in terms of the needs of the game.

4. STUDENT TEACHING: THE CULMINATING FIELD EXPERIENCE

Offering field experiences throughout the PETE program is a vital aspect of students' growth and development as novice teachers (Ingersoll, Jenkins & Lux, 2014; Rovegno, 1993, 2003). As students begin their student teaching field experience, they are overwhelmed with the amount of time spent on lesson planning as well as the variety of roles and responsibilities that are expected of teachers on a daily basis. Yet, with the ability to reteach lesson after lesson, day after day, content and pedagogical development occurs at a more rapid rate. Furthermore, they focus more on learning outcomes as they implement formal and summative assessments to measure whether students have learned. Emphasis on assessment has been infused throughout the PETE program; however, it is during student teaching that they come to realize how summative assessments often drive the development of learning outcomes for units of instruction. For example, in Ohio, K-12 physical education teachers are required by law to conduct formal assessments at specified grade levels. Thus, their cooperating teachers will inform them which assessments need to be conducted and they utilize the assessment criteria to guide their planning.

In regard to TGM, students have developed a sound understanding of the purpose and components of the model along with improved implementation. At this time, they are able to focus more on transfer of knowledge within each games classification system, and are more adept at changing the goals and conditions of the game and providing extensions and simplifications of the practice task based on what they observe in relation to student performance. Our observations of this include the manipulation of playing areas to achieve specific outcomes (e.g. decreasing playing space to increase skill requirements in an invasion game), changing equipment to facilitate improved skill execution (e.g. using trainer volleyballs) and imposing possession time limits on players to speed up decision-making.

Assessment was integrated into their methods and content courses since it is a salient component of instructional alignment; however, the expectation was for them to practice implementing an assessment to gain an understanding as to whether students learned, but without the next steps as to how to utilize that information (e.g., feedback

to students, grading purposes, planning for upcoming lessons/units). In regard to TGM, the GPAI has been streamlined throughout our program. First, they utilize it in their content-based game performance courses as they conduct peer and self-assessment, as was shared in the first section of this manuscript. Second, some students use the GPAI as their assessment of choice in their methods/content courses; however, students have more flexibility as to the type of assessment they use for one domain only. Finally, most student teachers use a modified version of the GPAI in their student teaching experience, for formative or summative purposes, either of which is possible given the quantitative data yielded by the assessment.

An additional value to having our students implement the GPAI during their field experiences is that it helps prepare them to implement assessments that are required at the state level. There are two statewide policies that necessitate student teachers to implement these assessments: the Ohio Physical Education Assessments (OPEAs – ODE, 2012) based on the Ohio Physical Education Content Standards, Benchmarks and Indicators (ODE, 2009), and the Teacher Performance Assessment instrument (edTPA – SCALE, 2014). The OPEAs and the edTPA are briefly described below.

As of the 2012-2013 academic year, physical education teachers in the state of Ohio are required to conduct 12 grade band assessments by the end of each academic year to demonstrate student learning based on the six physical education content standards (which up until 2014 aligned with the National Physical Education Content Standards). At the middle school and high school levels, one of the 12 assessments is to measure whether students can demonstrate critical elements of specialized manipulative skills in a variety of settings, which is based on each of the four games classification systems. Furthermore, a second assessment, a modified version of the GPAI, measures whether students can demonstrate understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities; specifically how they can apply tactical concepts and performance principles in a variety of physical activities. Since licensed teachers are required to assess their students by the end of each grade band (K-2, 3-5, 6-8, high school), they often supervise their student teachers' practice of select OPEAs during the student teaching experience. Under a cooperating teacher's supervision and for formative purposes only, the student teacher learns how to conduct the state assessment for each student and record the scores on the state developed Excel spreadsheets. Since many physical education programs are sport-related game heavy, almost all of our student teachers have the opportunity to implement the GPAI and a modified version of it with the OPEAs. In collecting GPAI data our students quickly come to appreciate the value of the assessment for the learners who are lower in motor ability, particularly given the instrument's ability to focus on aspects of game play such as decision-making, offensive and defensive off-the-ball movement, and game related positional adjustments, none of which require a high level of motor skill. These lower skilled performers benefit from the assessment of a broader definition of game performance (Mitchell et al., 2013).

The education Teacher Performance Assessment (edTPA) was developed by the Stanford Center for Assessment, Learning & Equity (SCALE) and adopted by numerous states throughout the country, Ohio being one of them, to assess student teachers' ability to provide quality instructional experiences to students and to measure student learning. The edTPA is extensive and is completed during the student teaching semester. A salient component of the physical education edTPA is the student teachers' ability to construct and implement assessment across learning domains and analyze the data that was gathered to provide feedback to students and inform their next instructional lessons and/or units. Again, for many of the student teachers in our program, they teach at least one sport-related game in their secondary experience and utilize that unit for their edTPA, thus, providing them with more experience implementing the GPAI and/or OPEA that is based on TGM. By the time our student teachers conclude their degree program and graduate, they receive a variety of theoretical and practical learning experiences about TGM.

5. SUMMARY

While the Tactical Games and Sport Education models are at the core of the KSU PETE program, we also address and/or implement other curriculum models, such as Fitness Education, Cultural Studies, Teaching Personal and Social Responsibility, Adventure Education, Outdoor Education and Movement Education (i.e., Skill-Themes). We recently developed a Fitness Education course that will model the Concepts-based Fitness Education Model (Lund & Tannehill, 2015); Cultural Studies is integrated into the secondary content course; Teaching Personal and Social Responsibility is taught across elementary and secondary methods/content courses; Adventure and Outdoor Education is the basis of our Outdoor Pursuits course and Movement Education/Skill Themes is the central model implemented in the elementary methods/content courses. Nevertheless, given that most K-12 physical education curricula are still heavily weighted towards games teaching and learning, it makes sense to emphasize sport-related games models within our own program. Our own bias is to address this area of the curriculum through using GCAs and in particular the Tactical Games Model (Mitchell et al., 2013).

We feel fortunate to have a PETE program at KSU where we can infuse the TGM throughout our entire program, beginning with first and second year students in our content-based game performance courses, with juniors and senior in our secondary methods/content courses and finally, during their student teaching field experiences. Although students do not have the pedagogical understanding of the model after they complete their game performance courses, by the time students graduate from our program, they can implement the model with confidence and competence, often providing their cooperating teachers with a view of a new approach to games teaching. We base this analysis from our observations of student teachers' lessons as well as feedback provided from university supervisors, cooperating teachers and even the student teachers themselves. Our ultimate goal as a program is for our students to utilize best practices and develop quality physical education programs as licensed

physical education teachers. Providing them extensive and various experiences using GCAs helps us to achieve that goal.

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