

**A Descriptive Analysis of PETE Master's Programs in the United States
And their Alignment with Advanced Teaching Standards**

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Abstract

Research regarding physical education teacher education (PETE) programs in the United States is narrowly focused, placing predominant emphasis on undergraduate programs. The purpose of this study was to provide a descriptive analysis of PETE master's programs in the United States and examine their adherence to SHAPE America's advanced standards and four guiding principles. A non-experimental, cross-sectional descriptive research design, and two-phase approach were used to collect data. A survey yielded descriptive statistics to analyze program demographics ($n=13$). Phone-based semi-structured interviews collected data from program affiliates ($n=4$) regarding adherence to advanced standards and four guiding principles. Data analysis revealed four dominant themes emerging from participant data: (1) Leadership Development; (2) Inquiry-Based Learning; (3) Curriculum Mapping; and (4) Enrollment Management. Findings explained programs integration and prioritization of advanced standards and four guiding principles, with direct alignment varying by program. Additionally, admission and licensure requirements have been altered to maximize enrollment potential.

Keywords: physical education teacher education, PETE.

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Research shows that undergraduate accreditation requirements have placed a significant focus on the structure and content of undergraduate Physical Education Teacher Education (PETE) programs in the United States (Mawer, 2014). Several studies outlining features that comprise undergraduate PETE curricular structure, program demographics, and programs' adherence to teaching standards (Ayers & Housner, 2008; Hetland & Strand, 2010; Taliaferro, Ayers & Housner, 2017; Wiegand, et al., 2004) combine to encompass this strong undergraduate curricular focus. Studies by Ayers and Housner (2008) and Taliaferro et al. (2017) outlined continuous development of PETE undergraduate program standard adherence, program descriptions, and formed the preliminary basis for this study. To produce a graduate-level replica to Ayers and Housner's (2008), and Taliaferro et al's. (2017) studies, this research focuses on PETE master's curricular structure, faculty demographics, and programs' incorporation of advanced standards. Compared to undergraduate counterparts, less is known about PETE master's degree programs in the United States, including curricular alignment with advanced standards and research regarding the relationship of continuing education to expertise in teaching (Hooper & Butler, 2013). Much of the existing research surrounding PETE master's programs, while rich in valuable information, places a narrow focus on the curricular structure of one program (Bulger, et al., 2017; Dauenhauer et. al, 2015; Dauenhauer, et al., 2017; Davis & Hawkins, 2014; Ramsey, et al., 2009), and PETE graduate student socialization (Richards, et al., 2018).

PETE Standards

SHAPE America (Society of Health and Physical Educators) oversees the development of standards for what teacher candidates (TCs) should know and be able to do upon completion of an accredited PETE program (SHAPE America, 2015) and is one of the

national authorities on physical education in the United States. Programs designed for initial licensure must use SHAPE America's initial PETE standards to meet accreditation requirements. Programs providing advanced-level (e.g., master's degree, post-initial licensure) training should use SHAPE America's advanced standards as a guiding framework, and provide evidence that candidates meet underlying elements of the standards for the standard to be met (SHAPE America, 2015).

Advanced Standards and Guiding Principles

Advanced PETE standards have three focus areas and four foundational guiding principles and were designed for the licensed educator to progress from the skills and knowledge required from one standard to the next. Professional knowledge (Standard 1) acts as a foundation. The master's TC must possess and apply foundational content knowledge into professional practice (Standard 2). Professional leadership (Standard 3) outlines expectations for advanced skills, knowledge, and dispositions to develop the teacher as a professional leader (NASPE, 2009).

Professional knowledge (Standard 1) is based on the idea that advanced TCs in physical education (PE) enter the program understanding content knowledge, application, and assessment that form the preliminary base for instruction (NASPE, 2009). Professional practice (Standard 2) focuses on validating teachers' ability to integrate and apply pedagogical skills, professional knowledge, and dispositions acquired during initial preparation. Teacher leadership (Standard 3) refers to skill demonstrated by practicing teachers whose leadership impact extends beyond their classrooms (Danielson, 2006). To determine programs utilization of SHAPE America's advanced standards, focus was placed on the four guiding principles

which serve as an anchor to the three advanced standards: focus on learning rather than teaching, integrated knowledge base, the importance of inquiry, and the role of leadership.

Purpose

This study provides a descriptive analysis of PETE masters programs in the United States, and addressed the following questions: (1) What is the descriptive profile of PETE master's programs including instructor background and curriculum content? (2) Do PETE master's programs align curricula with the SHAPE America advanced teacher standards for professional knowledge professional practice, and professional leadership, and/or the four guiding principles used to inform these standards? Research in this area is necessary to make a significant addition to essential findings in PETE master's program literature, gain a greater depth of knowledge of the profile of existing PETE master's programs in the United States, and assess PETE master's programs' incorporation of and adherence to SHAPE America's advanced standards.

Method

This study employed a non-experimental, cross-sectional descriptive research design (Ary, Jacobs, Sorensen, & Walker, 2013). The quantitative survey was utilized to analyze descriptively the demographics of PETE master's programs. A reflective qualitative component was utilized to analyze PETE master's programs' use of the four anchors established as guiding framework for advanced standards. An inductive approach to semi-structured telephone interviews was used (Goddard & Melville, 2004).

Participants

Twenty-seven program affiliates from colleges and universities offering a PETE master's degree were recruited to participate using a multiple step sampling procedure. As an

initial step in sampling frame construction, the researcher accessed an extant list of programs from a database of colleges and universities offering a bachelor's degree in PETE (Ayers & Housner, 2008), and from a search of programs listed at www.gradschools.com. The final list of graduate programs was formed for the specific purpose of this study and included 27 United States colleges and universities offering master's degree programs in PETE. Of the 27 programs, 15 (56%) program representatives agreed to complete the survey. Thirteen (48%) of those respondents replied with usable survey data. Two additional participants began completion of the survey but neglected to follow through. Of the 13 respondents, 11 (40%) completed the survey in its entirety. Four of the 13 respondents agreed to participate in semi-structured phone interviews. All semi-structured interview participants were professors directly affiliated with PETE master's programs.

Instrumentation

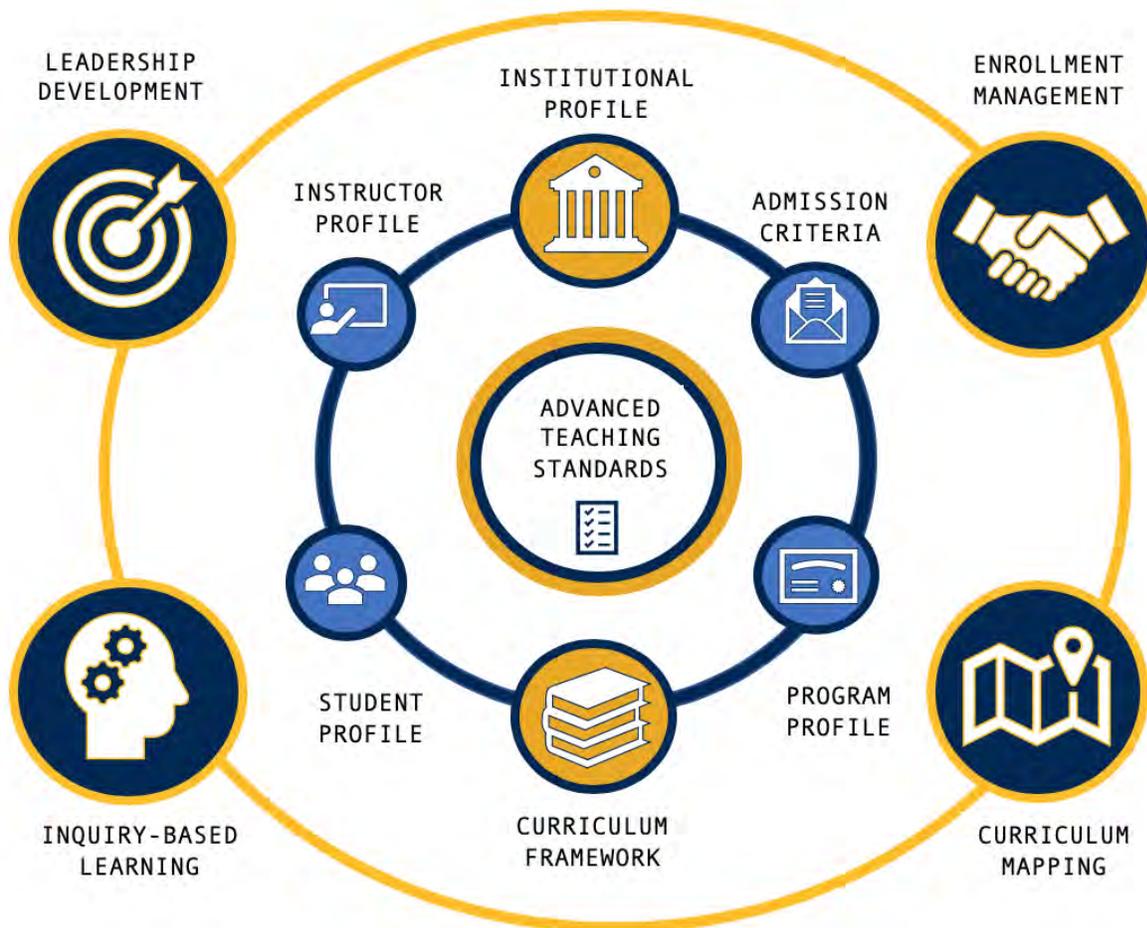
Data were gathered in a two-phase approach. A survey was used to gather demographic profile information about programs offering a master's degree in PETE. The 29-item survey was based on existing instruments (Ayers & Housner, 2008; NASPE, 2008; SHAPE America, 2015), and developed for the purpose of this study. To determine programmatic use of each element tied to advanced standards 1-3, participants were given a detailed description of each advanced standard and guiding principles. Next, they were asked to indicate using a five-point Likert scale ranging from 'not a priority' to 'high priority' the level of priority their program gave to each guiding principle throughout its entire curriculum (Allen & Seaman, 2007). The purpose of interviews was to collect data applicable to each program's adherence to the advanced standards by examining use of the four guiding

principles. Interviews consisted of six questions attempting to ascertain program’s curricular alignment with the advanced standards from the distinct perspective of program affiliates.

Results and Discussion

Data results and discussion are divided into two focal segments and included several subthemes. Merging results and discussion lends to greater clarity for the reader. Inner yellow circles of Figure 1 depict survey results, with Curriculum Framework and Institutional Profile as predominant themes. Student and Instructor Profile are subthemes under Institutional Profile. Program Profile and Admission Criteria are subthemes under Curriculum Framework. Outer blue four major themes from the semi-structured interviews.

Figure 1: Data Themes



Survey

The survey contained two focal categories of institutional profile and curriculum framework. Under these focal categories, subcategories of instructor profile, student profile, admission criteria, and program profile emerged.

Institutional Profile

Institutional profile includes student population, university Carnegie classification, private or public affiliation, geographic region, and developed environment (See Table1). The student population included on-campus and distance learning and ranged from 4,000-36,000 students. The overwhelming majority reported a Carnegie classification of doctoral university (53.85%) or masters granting college or university (38.46%). PETE master's degree programs were offered at predominantly doctoral and masters granting universities. The majority of the respondents (84.62%) indicated that their university offered a master's degree and a bachelor's degree in PETE, and approximately one-third (30.77%) listed the additional availability of a doctoral degree. Of the 13 responses, PETE master's programs ranged from 30 to 39 credit hours ($M=31.48$, $SD=2.62$).

Eleven (84.62%) of the participating universities were public, and the remaining two (15.38%) identified as private. The southeast (30.77%) and Middle Atlantic (23.08%) geographic regions comprised slightly over half of the useable data (53.85% combined). Heartland and rocky mountain regions each made up 15.38% of usable data with the east-central and New England regions each making up 7.69%. Just over three quarters (76.92%) of universities were located in either rural (38.46%) or urban (38.46%) settings. The remaining universities (23.08%) reported a suburban location.

According to Boyce, Lund, and O’Neil (2015), approximately 96% of institutions offering PETE doctoral degrees (23 in total according to 2011-2012 data) also offer undergraduate PETE programs. Programs offering initial licensure in physical education totaled 96% according to 2011 – 2012 data. Programs offering initial licensure included undergraduate programs, standalone graduate programs, and 5-year programs. The previous findings lend themselves to the belief that if institutions offering initial licensure offer doctoral level PETE programs, that the master’s programs may mirror these offerings.

Table 1
Institutional Profile; Classifications, Student Population, Demographics (N=13)

| Institution | Student Population | Carnegie Classification | Private/Public | Geographic Region | Developed Environment |
|-------------|--------------------|-------------------------|----------------|-------------------|-----------------------|
| 1 | 28,776 | Doctoral | Public | East Central | Rural |
| 2 | 36,000 | Doctoral | Public | Heartland | Rural |
| 3 | 8,300 | Master’s | Public | Southeast | Urban |
| 4 | 15,000 | Doctoral | Public | Mid Atlantic | Rural |
| 5 | 4,462 | Master’s | Private | Mid Atlantic | Urban |
| 6 | 6,500 | Master’s | Public | New England | Suburban |
| 7 | 10,000 | Doctoral | Public | Southeast | Rural |
| 8 | 14,551 | Doctoral | Public | Southeast | Suburban |
| 9 | 7,500 | Baccalaureate | Public | Heartland | Rural |
| 10 | 12,000 | Doctoral | Public | Rocky Mountain | Suburban |
| 11 | 4,000 | Master’s | Private | Mid Atlantic | Suburban |
| 12 | 32,000 | Doctoral | Public | Rocky Mountain | Urban |
| 13 | 7,300 | Master’s | Public | Southeast | Urban |

Student Profile

Over half of the respondents indicated their students were enrolled full-time, and 9 programs (69.23%) indicated the availability of graduate assistantships. Of the respondents reporting graduate assistantship availability, half (50%) of those listed other duties as teaching

physical education, teaching before and after-school programs, assisting with labs in schools, teaching physical education in a satellite school, and various instructional responsibilities as additional graduate assistant responses.

In a multi-response question, just over half (62.5%) of respondents indicated teaching basic instruction courses as part of graduate assistant duties and responsibilities. Similarly, 62.5% of institutions stated that research was part of their graduate assistant duties. These findings show that though some PETE masters TCs are gaining valuable experience teaching K-12 students as part of graduate assistantships, those performing other duties may lack the practical experience set forth as a measure for meeting advanced standard criteria. Furthermore, findings indicate that the vast majority are entering master's degree programs without initial licensure, further complicating meeting the requirements of the advanced standards, as advanced PETE Standards are used in the national recognition process to review advanced-level programs. Advanced level programs are defined as "master's degree, post-initial licensure" by SHAPE America (2015, p. 1). Furthermore, SHAPE America explicitly states that institutions offering master's degrees meant for initial licensure should use the initial "PETE Standards for national recognition review" (SHAPE America, 2015, p. 1). When the master's degree is offered in a broad field such as kinesiology, curriculum, or general education, the appropriateness of SHAPE America's advanced standards should receive careful consideration.

Instructor Profile

Eleven participants responded with useable data in the instructor profile portion of the survey (see Table 2). The number of faculty delivering instruction in the participating PETE masters programs varied from a low of two individuals to a high of eight with a relatively

even representation by gender across all programs. The majority of programs were taught by primarily Caucasian faculty of both genders, showing a lack of diversity by race/ethnicity across full-time faculty (92.7% Caucasian, 5.5% Asian). One program did indicate that one instructor fell into the race category of “other,” but did not indicate that race in their reply. This echoes Ayers and Housner’s (2008) and Taliaferro et. al (2017) findings of an overly representative population of Caucasian faculty in PETE (respondents reported employing a 92% Caucasian faculty). However, the trend shows an increase in non-Caucasian faculty; 9% in 2005–2006 to 11% in 2008–2009 and 15% in 2011–2012 (Boyce & Rikard, 2011; Boyce, et al., 2015; Taliaferro et. al, 2017).

Table 2

Instructor Profile; Race, Gender, Status, Higher Education Credentials (N=11)

| Institution | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|------|-----|------|------|-------|------|------|------|------|------|------|
| No. of Instructors | 6 | 5 | 3 | 3 | 8 | 5 | 6 | 5 | 3 | 2 | 5 |
| Gender | | | | | | | | | | | |
| Male | 67% | 20% | | 67% | 37.5% | 80% | 67% | 60% | 67% | 50% | 67% |
| Female | 33% | 80% | 100% | 33% | 62.5% | 20% | 33% | 40% | 33% | 50% | 33% |
| Race | | | | | | | | | | | |
| Caucasian | 100% | 80% | 100% | 100% | 100% | 60% | 100% | 100% | 100% | 100% | 80% |
| Asian | | 20% | | | | 20% | | | | | 20% |
| Other | | | | | | 20% | | | | | |
| Faculty Status | | | | | | | | | | | |
| Full-Time | 83% | 80% | 100% | 100% | 75% | 100% | 83% | 100% | 100% | 100% | 100% |
| Part-Time | 17% | 20% | | | 25% | | 17% | | | | |
| Highest Degree Earned | | | | | | | | | | | |
| Doctorate | 83% | 40% | 100% | 100% | 87.5% | 100% | 100% | 100% | 100% | 100% | 100% |
| Master's | 17% | 40% | | | 12.5% | | | | | | |
| Bachelor's | | 20% | | | | | | | | | |
| K-12 Teaching Experience (Full Time) | | | | | | | | | | | |
| Yes | 67% | 80% | 67% | 67% | 25% | 100% | 67% | 80% | 100% | 100% | 40% |
| No | 33% | 20% | 33% | 33% | 75% | | 33% | 20% | | | 60% |
| Years Teaching in Higher Education | | | | | | | | | | | |
| Mean | 7.5 | 9.4 | 13 | 9 | 15.4 | 10.2 | 10.5 | | 12.6 | 21 | 17 |
| Range | 14 | 10 | 14 | 8 | 25 | 31 | 17 | | 18 | 18 | 39 |

In a 2014 study describing their current practices, many teacher educator interviewees reported falling back on their own experiences as classroom teachers to inform their work with preservice students (Goodwin et al., 2014). Goodwin et al.'s. (2014) findings also showed that teacher educators often feel unprepared in their role, but still offer valuable insight into methodical thinking about what represents a high-quality teacher education program.

Curriculum Framework

Of 13 participating programs, almost half ($n=6$) utilized the cohort system. All 13 programs (100%) are designed for coursework to be completed in the fall, spring and summer terms. The only curricular aspect applicable to all 13 (100%) programs was a research requirement. Participating program affiliates did not indicate that a specific line of research was required.

Content threaded throughout courses included technology and its application to PE, administration research and statistics, teaching methods, motor learning, special education, sport pedagogy, coaching, and health. Specific themes or courses stranded in program coursework included adapted sport and PE, technology, and foundational knowledge. It is important to note that participants were able to select multiple course content offerings. Course content specific to curricular models, standards-based assessments, school-based physical activity, supervision, and hands-on experiences were incorporated less across programs (See Table 4). Based on instructors' areas of expertise (See Table 3), findings may lead to the conclusion that coursework in PETE master's programs appears to be aligned with expertise of faculty as opposed to being based on the advanced standards. Areas in which instructors were highly specialized played a greater role in program coursework according to participants.

Table 4

Concepts Threaded Throughout PETE Master’s Coursework

Note: Participants may choose more than one option (N=13)

| Coursework Themes | Institutions Offering |
|--------------------------------|-----------------------|
| Adapted Sport and PE | 81.82% |
| Foundational Knowledge | 81.82% |
| Technology in PE | 72.73% |
| Field Experiences | 63.62% |
| Multiculturalism and Diversity | 45.45% |
| Hands on Practicum | 36.36% |
| Instructional Models | 36.36% |
| Curricular Models | 36.36% |
| School Based Physical Activity | 36.36% |
| Standards Based Assessments | 36.36% |
| Supervision | 36.36% |

Admission Criteria

Only 2 of 13 programs (15.4%) required an initial teaching license in physical education or another discipline as a requirement for admission. The remainder resulted in initial teaching licensure. Three of 13 (23%) programs that reported no licensure requirement also stated that teaching licensure had been a requirement for admission in the past but has since been eliminated. This may be due to a rising need to maintain and increase program enrollment (Ayers & Woods, 2019; Bulger, et al., 2016). The mean number of students attending full time was 52.69 and mean for part-time attendance was 47.31. This may be due to the availability of graduate assistantships which typically require full time attendance, in the majority of programs. Interestingly, full time attendance and lack of requirement for initial teaching licensure means that the masters TC is not currently a practicing PE teacher. SHAPE America explicitly outlines that its advanced standards are intended for post initial licensure, and those who are currently an

active practitioner (SHAPE America, 2015). Though lack of current practice does not equate to lack of licensure, many programs have intentionally designed course assignments and schedules to benefit those currently teaching in field.

In response to the option to elaborate on the elimination of teaching licensure as a requirement, one respondent indicated, “While this [teaching licensure] is preferred, we have adjusted our admission criteria to not require this [certification]. Although our program is not an initial certification program, we have added a post-baccalaureate track that allows students to earn certification through a combination of UG [undergraduate] and MS-level [masters level] coursework. Background in physical education, sport pedagogy, physical activity, and education is preferred, but not required.” None of the program representatives indicated that previous teaching experience was a requirement for program admission. It should be noted that licensure and experience are separate. Licensure refers to the certification to teach upon completion of the requirements of a bachelor’s degree teacher-training program. Experience refers to the act of teaching in the classroom or gymnasium setting.

Program Profile

Approximately one-third of respondents (36.3%) indicated that their masters in PETE program was accredited on a national level (NCATE/CAEP/TEAC), 36.3% indicated state level accreditation, with the remaining programs (27.4%) not accredited on any level. The overwhelming majority (90.91%) of respondents indicated familiarity with SHAPE America’s advanced standards. It should be noted that familiarity on average, the length of time to complete the program varied from a minimum of 3 and a maximum of 6 semesters ($SD=4.92$). In a multi-response question, 70% of respondents indicated that their program was based on state teaching standards, 40% reported their program was based on SHAPE America’s advanced teaching

standards, and 20% were based on SHAPE America’s initial teaching standards. Each program participant was asked to rate the priority of the elements that composed each of the three advanced standards.

A standard is considered met if all underlying elements are met (SHAPE America, 2015). For Standards 1 (Professional Knowledge) and 2 (Professional Practice) participants rated the majority of the elements as high to essential prioritization in their PETE master’s programs (see Tables 5 & 6). One component of Professional Practice discusses reflection, and systematic inquiry about teaching and 63.6% of participants indicated high or essential prioritization of this element. Reflection and inquiry into planning, instruction, and assessment, are essential for continued teacher enhancement (Metzler, 2015).

Table 5
Prioritization of Standard 1; Professional Knowledge (N=11)

| Elements | Not a priority | Low Priority | Medium Priority | High Priority | Essential |
|--|----------------|--------------|-----------------|---------------|-----------|
| Knowledge of Content in Movement and Pedagogy | 9.09% | 9.09% | 18.18% | 36.36% | 27.27% |
| Knowledge of how to represent content knowledge to make it comprehensible to learners (i.e., pedagogical content knowledge). | 9.09% | 9.09% | 18.18% | 18.18% | 45.45% |
| Knowledge of processes and methods of systematic intentional inquiry about learning and teaching in physical education. | 18.18% | 0.00% | 0.00% | 36.36% | 45.45% |

The results from the prioritization Likert scale and the theme of inquiry-based learning in the qualitative portion point to the fact that the master’s degree programs participating in this

research do prioritize and implement Professional Practice and inquiry into practice. Standard 3 (Professional Leadership) is the only standard that dropped below the majority of high to essential prioritization (See Table 7). According to Wenner and Campbell (2017) and York-Barr and Duke (2004) the importance of teacher leadership in schools may be second only to classroom instruction. What constitutes a teacher leader remains widely diversified, as teacher leaders hold many titles, including a coach, mentor, and department chair (Wenner & Campbell, 2017).

Table 6

Prioritization of Standard 2; Professional Practice (N=11)

| Elements | Not a priority | Low Priority | Medium Priority | High Priority | Essential |
|--|----------------|--------------|-----------------|---------------|-----------|
| Teaching reflects integration of planning, instruction and assessment as a unified process to achieve long- and short-term outcomes/goals. | 9.09% | 9.09% | 9.09% | 27.27% | 45.45% |
| Teaching reflects differentiation of instruction based on personal and cultural characteristics of learners. | 9.09% | 9.09% | 9.09% | 36.36% | 36.36% |
| Teaching reflects systematic inquiry about the practice and the learners served. | 10.00% | 10.00% | 10.00% | 30.00% | 40.00% |

According to the qualitative findings of this study, the Professional Leadership advanced standard, and the Role of Leadership guiding principle have been incorporated by program

affiliates to help to diversify master’s TCs role in and outside of the physical educator further supporting the importance of teacher leadership. The findings from the quantitative portion of this study indicate a lower prioritization than the qualitative portion. This finding lends itself to reexamine the role of teacher leadership in PETE master’s degree programs. Interestingly, findings from this study indicated that advanced standards are not a foreign concept; programs are familiar with and incorporating principles of advanced standards but are not basing the entire program on these standards.

Table 7

Prioritization of Standard 3; Professional Leadership in PETE Master’s Programs (N=11)

| Elements | Not a Priority | Low Priority | Medium Priority | High Priority | Essential |
|--|----------------|--------------|-----------------|---------------|-----------|
| Conducts inquiry into professional knowledge and practice and communicates results of inquiry to the profession and community. | 18.18% | 9.09% | 18.18% | 27.27% | 27.27% |
| Continues personal development through contributions to the growth and professional learning of others. | 18.18% | 9.09% | 27.27% | 18.18% | 27.27% |

Semi-Structured Interviews

When four professors affiliated with PETE graduate programs were interviewed regarding their use of SHAPE America’s guiding framework to inform the advanced standards, four relevant themes of leadership development, curriculum mapping, inquiry-based learning, and enrollment management emerged. Emergent subthemes under each main theme will be outlined following each preceding larger theme. Two of the four participants were affiliated with

PETE master's programs requiring initial licensure for admission. The remaining two programs had no initial licensure requirement.

Leadership Development

Developing teachers as leaders means that the teacher must assume a range of roles to support success in their profession and school. Leadership roles may be formal or informal, alone or shared, and facilitate school, field, and personal improvement. PE teachers and TCs have a responsibility to promote positive health behaviors and outcomes in schools (Goc Karp et al., 2017), lending graduate expectations to focus on developing the practitioner instead of creating effective novice teachers. According to interview participants, K-12 student progress occurs after the teacher continues to progress and develop as a professional. Masters in PETE courses that intertwine leadership development and leadership initiatives in existing courses were a commonality among 3 out of 4 of interviewees. Participant three responded, "I am not sure that we do [focus on leadership]."

Leadership Strands

Several recent studies (Bulger et al., 2017; Deuahnauer et al., 2017; Goc Karp et al., 2017; Sundaresan, et al., 2017; Zhang, et al., 2018) described the importance of reforming PETE undergraduate and graduate plans of study to incorporate the knowledge, skills and proficiencies essential for a teacher leader CSPAP in K-12 schools. Participant four indicated that one course in their curriculum "is going to focus on leadership and advocacy, and how physical educators can be intentional in how they matriculate through a career and develop as leaders." Participant two named leadership requirements for courses in the PETE master's curriculum ranging from sharing leadership-based projects "with their [PETE master's candidate's] school administrator, or their school board, alternatively, they could decide to take the initiative and share the

outcomes of that project or take it to a greater extent onto their community or even state conference.” The program of participant one offered an “assessment course meant for leadership.” Meaningful assessment is quickly becoming central to K-12 physical education programs. In December 2015, the authorization of Every Student Succeeds Act (ESSA) identified physical education as a component of “well- rounded education,” a term that has replaced “core academic subjects.”

There is a need now, more than ever, for teacher leaders who create and implement well-rounded and meaningful pre and post formative, summative, and standards-based assessments covering the cognitive, psychomotor, and affective domains of learning (Sundaresan et al., 2017). The importance of teacher leadership and its relationship to high quality K-12 student assessment is echoed by participant one stating “you are [PETE masters students] taking data, evaluating it and making day to day decisions" based off of those outcomes. A second university offered a course focused on "guiding a group through curriculum development" and establishing deadlines, dates, and goals. These findings show that there is an awareness of the importance of leadership in PETE, and some masters programs have modified curriculum to meet this need.

Classroom Leadership

According to Fairman and MacKenzie (2015), teachers have a responsibility to be a leader in direct and indirect roles. Participant two stated that leadership focusing on the student (K-12) as a learner requires much “more of a leadership focus [for the teacher].” Programs have shifted from giving teachers the next set of skills to giving them a strong focus on leadership in teaching. The focus on the *importance* of leadership in teaching was a consensus among all interviewees. Participant four’s emphasis of this leadership focus is “on bettering oneself as a [master’s degree] learner to impact your professional practice and what it is that you do on a day

to day basis with your learners." Poekert, Alexandrou and Darbiann (2016), stated that teacher leadership is increasingly presented as a useful answer to guide teacher learning, school improvement, and policy reform, and noted that leadership development is positioned in the framework of classroom, school, and community.

Leadership Outside of Teaching

Broadening expectations placed on PE teachers have made it essential for educator preparation programs to provide training for teachers to perform leadership functions inside and outside of instruction (Dauenhauer et al., 2017; Erwin, et al., 2014). Participant two's vision of leadership outside of teaching means taking leadership skills to the next level and facilitating the teachers' desire to grow professionally and building "capacity [for leadership] within the spheres of influence, within their communities and beyond." Courses at participant one's university have been "designed for people who would take leadership roles [relevant to physical education] in special associations." Participant two more specifically stated that outside leadership may take shape in the form of becoming a national board-certified teacher, becoming a master teacher, and having teachers "think about their school and community stakeholders involved, their administrators, and look for ways that they could communicate the value of their physical activity and value of physical education outside of their classroom."

Bagley and Margolis (2018) referred to this as hybrid teacher leadership (HTL). HTL focuses on teaching K-12 students and leading outside of the classroom, most notably leadership in the form of professional development and administration. A master's degree is one way to enhance marketability, participate in professional development, and evolve as a dynamic and

reflective practitioner (Arum & Roksa, 2011; Ott, et al., 2015; Petrie & McGee, 2012).

HTL ties directly to the findings of the leadership from this study, and the leadership focus of SHAPE America’s advanced standards. It is imperative for PETE master’s programs to include a strong leadership focus in the curriculum to develop the advanced TCs as teacher leaders. An additional focus for three interviewees was on building a plan to focus on how they [PETE masters TCs] can develop leadership across their career. The leadership development findings discussed in this section intertwine directly with the guiding principle of the roles of leadership. Note that the small sample size ($n=4$) may show the prioritization of leadership in the questioned programs. The strong focus, however, may be widespread among PETE master’s programs not interviewed for this research. Focusing on building higher capacity for leadership focus in the curriculum lends itself to the next critical topic in the interview findings, curriculum mapping.

Table 8
Summary of Theme 1: Leadership Development

| Participant | Representative Quote |
|-------------|---|
| P2 | "...emphasis then is on bettering oneself as a learner in order to impact your professional practice and what it is that you do on a day to day basis with your learners." |
| P1 | " Leadership is something that we talk about in regard to you are" |
| P3 | "...take it to the next level and share that project with their school administrator, or their school board - and even yet best - they could decide to take the initiative and share the outcomes of that project, or take it to a greater extent onto their community or even state conference..." |
| P4 | "...how would the build capacity within the spheres of influence, within their communities and beyond?" "... legally to justify what it is that their program does ... how it meets national standards... build that leadership plan for themselves of how they are going to develop across their career" |

Curriculum Mapping

Curriculum alignment refers to a coherent well-organized curriculum intentionally created to facilitate learning aligned across courses and program completion. Program structure is the home base of the master's program.

Curricular Structure

PETE master's program curricular structure covered all course offering formats. All participating programs offered some online component, including a blended "unique advanced laboratory, follow up course" followed by a face-to-face laboratory setting within a designated time period. Participant three stated that they "don't see that [online program delivery] changing in the next five years." Online student enrollments increased for the 14th straight year in 2016-17, with more than 31% of all college students taking at least one distance education course — and all evidence suggests the uptick has continued (Bednar, 2018; Seaman, et al., 2018).

Participant one's program offered initial PE certification, stating that "we [they] were getting many students who wanted initial certification." PETE specific coursework and requirements varied by program. Participant one's program offered "gradual courses in education followed by 12-15 [credit] hours in physical education," while a second program offered a "master of arts in education with about 12-15 [credit] hours [in physical education]." Additionally, participant one stated that that their university offers a "fifth-year program that leads to a Master of Arts in education with a physical education component." The shift from training practicing teachers to master's program offering initial certification may be viewed adversely. Students may enter the program with little to no knowledge of pedagogical processes, physical education principles and research, and basic terminology in education. While there is no

exact formula to measure the concepts discussed, this topic may be one for further investigation in the future.

Curricular Theme

Curricular themes unique to each university emerged. Participant two's university "decided to go ahead and create this new master's program with the focus on leadership in education, and adult education," while participant one's university positioned themselves toward "the health science approach instead of strictly physical education." Another new curricular theme from participant four included "interdisciplinary approach or multi-disciplinary approach."

The consensus among four interviewees was to design curriculum focused on creating exemplary master teachers. Participant three's curriculum "take(s) into consideration [taking] a look at an integrated body of knowledge that we think exemplifies the master teacher." For recent graduates, connecting professional preparation and the workforce can be a sizeable task (Ensign, et al., 2017). In some instances, once enthusiastic career expectations conflict with the reality of the daily requirements placed on teachers (Ensign et al., 2017). Interestingly, over 40% of novice teachers exit the profession within the first five years (Perda, 2013). This can be linked to the importance of retaining practicing teachers past the five-year mark and beyond. The induction years are a crucial time for developing teaching practices. It is important to introduce varying new experiences and aid in developing the functions of effective teaching. Positive professional development experiences are crucial at this juncture (Ensign et al., 2017). In addition to positive professional development experiences, many teacher educator interviewees reported utilizing their experiences as classroom teachers to inform their work with preservice students. (Goodwin et al., 2014). The positive professional development experience during PETE master's program may be a link to retaining novice teachers past the first five-year mark. These

positive experiences can be achieved in the master's program by offering masters level TCs the chance to expand and restructure their knowledge and areas of expertise, thus bringing relevant and useful new information to the K-12 curriculum.

Program Diversification

Program diversification is any means of diversifying the existing program to enhance the marketability of students. Participant one stated, "the market is so saturated and difficult to get a teaching job they want to diversify [to] get them [students] onboard with a master's degree in PETE and include for example an 8-10 credit adapted certification." Examples of program diversification present in this research included making program graduates marketable to teach on the college level, experience in grant writing, and pay boosts upon obtainment of the master's degree, while other programs have "developed different standards for students who have an interest in becoming an athletic director or school district administrator."

Table 9

Summary of Theme 2 from Semi-Structured Interviews: Curriculum Mapping

| Participant | Representative Quote |
|-------------|--|
| P1 | "...They take a few undergraduate courses and then they take a series of graduate courses. 18 hours in physical education... no requirement for any undergraduate physical education courses..." |
| P2 | "Reflection is a component of our physical education program" |
| P4 | "...designed to allow practicing teachers, or professionals in the field to work through professional course work that's really designed to allow them to apply content in their practice - in their school or community based physical activity setting." "...unique advanced laboratory follow up course setting..." "The summer work that they do - 3 credit hours of the bonded work - is followed up with a 1- credit hour advanced lab in either the Fall or Spring semester." |
| P3 | "...developed... different standards... have an interest in becoming an athletic director, or some sort of school district administrator, or ... opportunity to learn about those particular issues." |

Inquiry-Based Learning.

Analysis of teaching and learning refers to helping pre-service and practicing PE teachers improve teaching skills through practice, analysis, and reflection. Data analysis can provide a picture of students’ current knowledge, what they need to know, and what can be done to achieve learning goals (Maass & Engeln, 2018). Maass and Engeln (2018) stated it is essential to provide high-quality inquiry-based learning in professional development on a large scale. High stakes performance assessments, such as edTPA support this implementation of best practices and are quickly becoming consequential with teaching licensure in many states (Metzler, 2014). These performance assessments require teachers to show intentionality and reflection in planning, teaching, and assessing K-12 students. This large-scale professional development may occur

through master's coursework. Greater understanding of how student engagement with genuine inquiry-based approaches is needed to design more meaningful experiences for students (K-12) in physical education (Enright & O'Sullivan, 2012; Kretchmar, 2000), and for developing a curriculum to enhance physical education and experiences beyond the classroom (O'Connor, Jeanes, & Alfrey, 2016).

Effective Teaching

According to participant one, "focus [is placed] on effective teaching techniques [because] little or no experience [took place] in [previous] teaching preparation." Participant one additionally cited program goals to "expose the students to as much as we [instructors] possibly can in a limited amount of time, in a limited number of courses to try to enhance the learning related to the field [PETE]."

Some master's programs are tasked with the duty of preparing candidates who have no teaching certification or experience. Participant three noted that "[we] do our best to bring them [students] up to speed and also introduce them to advanced methods of teaching physical education which we go into in broad depth." The expectation for master's PETE students' performance according to participant four is "much higher than it [expectation] is for the undergraduate students." One way that programs have ensured the production of effective teachers is through a rigorous focus on reflection and assessment. Participant one cited that "students coming in [to the program] [with] teaching experience - reflection concerning what is happening, what works, what doesn't work, the impact it has on the students and students' performance," and "are students learning [and] can you document this learning?"

Models-based instruction in PE can be a valuable instructional tool; however, models-based-practices should work in conjunction with a thoughtful and thorough program (Landi, et

al., 2016). Participant two cited the use of Models Based Instruction as a critical component that “is all about reflection.” This instructor conveyed the importance of teaching in the field using a models-based approach followed by reflection for future changes in teaching practice, stating “then they [PETE masters TCs] reflect on parts that are going well and parts that aren’t going well, and make adjustments.” The focus shifts from lesson planning that typically occurs during undergraduate coursework to effective teaching in graduate coursework. Participant four noted that “it [teaching] is more than the lesson plan, going in and teaching and walking away, [teaching requires an] assessment of what exactly happened in that lesson.” Assessment justification and reflective commentary is a critical part of high stakes performance measures that are rapidly becoming consequential with earned teacher certification in many states (Metzler, 2014).

Course Assignments to Reflect Inquiry-Based Learning

During technology coursework, participant four noted that “learners are asked to identify instructional problems that might be solved with an innovative tool and establish a plan for implementing that technology within a unit of instruction then evaluate the effectiveness of it using reflective writing and evaluating the student outcomes and teacher outcomes.”

Additional requirements embedded within PETE master’s curricula took creating active practitioners through assessment and reflection into account. Examples cited by participant one included “talks, discussion posts, reflective assignments built into each classes’ work requires them [students] to think critically about their professional practice.” Moreover, candidates are asked to reflect on their teaching practice. Participant two noted that “[masters] candidates are asked to reflect, whether it is on special topics, contemporary issues, or whether it is on particular examples [given in] coursework.” Coursework specific to assessment took place in

participant three's program and utilized a broad-spectrum approach in general education.

Participant three stated "I try to read widely in regular education, so it is not driven down to just physical education." The purpose of supervision coursework in participant two's program is for "[students to] learn how to observe and watch teaching and giving feedback. So, the emphasis is on promoting student learning."

An action-based research component was unique to one university. Initially designed for social issues and employed in 1946 by K. Lewin, action-based research is a valuable method for executing change through planning, acting, observing, and reflecting (Keegan, 2016). Keegan's (2016) research found that action research was effective in helping PE teachers enhance student learning. The action-based research component discussed by participant four manifested itself as a project requiring the examination of the context "in which they [PETE masters TCs] are in and then be reflective about it," focusing on the question of "is there a particular problem that they may be focusing on to improve." Participant four also noted that "we [faculty] wanted to bring that [action research] back in [to the program]." Overall, participant four outlined the purpose of action-based research on a larger scale was to "take [findings] back to their schools, or community setting, and do action research type of project where they [PETE masters TCs] identify a problem, come up with a plan for implementation, and then evaluate the effectiveness of that plan." Keegan's (2016) research found that action research was effective in helping PE teachers enhance student (K-12) learning.

Finally, formally organized culminating requirements were an essential part of inquiry-based learning in PETE master's programs. Culminating requirements included in participant two's program were "a comprehensive exam with us in physical education before they graduate," "emphasis on learning and learners because it does challenge the student or the professional

learner to think about what practices they can improve upon in themselves (participant four)” and lastly, research requirements in the form of a master’s thesis.

Data Driven Effectiveness Through Evidence-Based Practice

Evidence of effectiveness in participant two’s program was collected by “allowing teachers to provide video documentation... opens the doors for a lot of new possibilities in teacher education” through video analysis, and supervision coursework where students “[acquire] the training and be able to get the data-driven observation.” Since video documentation is becoming a critical component of initial certification through high stakes performance assessment (Metzler, 2014), it is important that those programs offering initial certification in the PETE master’s program prepare students to analyze video documentation of teaching to refine their practice. Also, field systems analysis (FSA) can be used separately for quantitative evidence of teachers’ strengths and areas in need of improvement (Davis & Hawkins, 2014). The goal of video documentation for participant two’s program was to make candidates aware of “formal and informal assessments, discipline, management, and leadership.” The findings from the video documentation showcased students’ ability to identify and display “interesting growth” within themselves “because of those assignments [video analysis].” Two of four respondents indicated assessment and evaluation related courses within their PETE master’s program. These assessment courses take a “data-driven approach...to teach people how to do assessments; how do you assess your students and documenting student learning.” Participant four’s assessment course focused on the use of assessment data in student evaluation and the “second part of the course focused on how you use the data; so, thinking about the kinds of information and the different types of assessments will leave you and reflecting on the data.” Using data to improve teaching allows teachers to inform their instruction, ultimately producing

more effective practitioners. Participant four noted that “teachers that are in the field [are] looking at data points [and] then making decisions and speculating, diagnosing and prescribing what might be next steps.”

Table 10

Summary of Theme 3: Inquiry-Based Learning

| Participant | Representative Quote |
|-------------|--|
| P1 | "... our best to bring them up to speed and also introduce them to advanced methods of teaching physical education which we go into in broad depth." "... level of expectations for their performance is much higher than it is for the undergraduate students." |
| P4 | "...take back to their schools, or community setting, and do action research type of project where they identify a problem - come up with a plan for implementation - and then evaluate the effectiveness of that plan." |
| P3 | "...data driven approach in today’s educational context...course that is going to be an assessment and evaluation... to teach people how to do assessments." |
| P4 | "... submit video artifacts ...things that a teacher has to be aware of.... Formal and informal assessments, discipline, management, leadership." |

Enrollment management

Enrollment management includes student recruitment and retention. Programs also stated features unique to their program are used as a marketing tool to recruit new students. These combine to form the broad category of enrollment management.

Recruitment

All interviewees stated that their universities were deliberate about recruiting students. Participant four stated that “[We are] intentional about providing promotional information to prospective students through a very targeted and automated system; [We are] working with

academic affairs and various online communication platforms for students inquiring about programs.” Programs’ recruitment efforts focused on incentivizing for enrollment through signature features unique to the program, outside tools available for recruitment, and the challenges faced in student enrollment.

Examples of incentivizing for recruitment include an incentive for student referral, accelerated bachelor’s to master’s programs, blended programs, and course offerings for non-degree seeking students. Participant four noted that “[those] who refer somebody to the program, and they actually apply, then there will be some incentive for that person too.” Participant three’s program offers an “accelerated bachelors to master’s program, assisting bachelors and PETE students in their junior semester.” Participant four also noted the importance of their “free webinars that might allow them [students] if they were to register and take some of the segments and chunks of our content that would allow them to work towards a degree in a little bit more self-paced manner.”

Migrating programs toward the online format presented itself as a recruiting tool utilizing distance learning to appeal to the busy practicing educator. Participant two cited that their program is “transitioning solely online from an economic standpoint [and the] university sees that to be a stronger recruiting tool; when it comes to master’s programs distance learning, people from all around the world can be able to take teacher certification courses from anywhere.” The consensus among participants was that more online [PETE] programs pop up as a way to incentivize the PETE master’s program for students considering an advanced degree. At present, countless students access online educational resources with the use of mobile devices, often substituting this for traditional learning interactions (Anshari, et al., 2016). Using online learning has aided professors in increasing efficiency and teaching effectiveness (Park & Lim,

2015; Puzziferro & Shelton, 2014). Over the past two decades, online education has quickly grown (Allen & Seaman, 2015). According to the United States Department of Education (2013), the number of American college students taking an online course is 32%, and those enrolled in a fully online program is 25% (Berry, 2018). Expanding and fine-tuning this online focus in PETE master's program is critical in recruiting and retaining students. According to Berry (2018), Zimmerman and Nimon (2017), and Ke and Hoadley (2009), graduate students who feel connected to peers and faculty have a higher likelihood of engaging academics and are less likely to withdraw from the academic program. These findings greatly impact PETE graduate programs, as all program affiliates surveyed indicated at least some online and distance component in their programs.

Unique Recruitment Features

Unique features of PETE master's programs were fundamental in recruiting prospective students. Participant one noted unique feature of "meetings and hands-on; [I] have people come to my office, sit down, and show me exactly what the program looks like. [Our] strategy is to give that personal touch to students [to let the know that] we have a place for them. [I] personalize as much as I can." Participant two' uses "that [leadership] in some of the recruitment and marketing materials that program graduates go for." Lastly, participant four reiterated the importance of "growing [their program] into a neat mentor-mentee opportunity for the professional learning community to grow in that way we help to attract student with the summer bachelor's program."

Specific recruitment initiatives mentioned by participant four included "looking for ways to connect with Academic Innovation or online tools to help us build some of those professional development credits for teachers in the state and surrounding states," striving to appeal to

students outside of the traditional market, and online education. Enrollment management quickly presented itself as a component in need of attention and expression in PETE master’s degree programs. Online and blended course offerings may offer one solution to continued interest and enrollment. The role of leadership guiding principle presented itself yet again relative to enrollment management. The role of leadership was mentioned by participant four noting the “importance of building a mentor/mentee component into their PETE master’s program.” Additionally, current students are expected to express themselves as leaders in the field by conveying what they have learned during master’s coursework to fellow PE teachers and administrators through course projects and action research projects.

Table 11

Summary of Theme 4: Enrollment Management

| Participant | Representative Quote |
|-------------|--|
| P4 | "...intentional about providing promotional information to prospective students through a very targeted and automated system." "... worked with the Office of Academic Innovation, and WV online to build in a communication plan for those who inquire about the program." |
| P4 | "...offering maybe some courses for non-degree seeking students. So, some free webinars that might allow them if they were to register and take some of the segments and chunks of our content that would allow them to work towards a degree in a little bit more self-paced manner." |
| P3 | "...very good retention in this program...we take care of our students ... try to get to know them as best we can... we want them to be successful." |
| P2 | "...constantly looking for ways to appeal to students outside of the market that we have traditionally reached..." |
| P2 | " We do use that (leadership) in some of recruitment and marketing materials that program graduates go for" |

Limitations and Future Directions

Between 11 and 13 professors teaching in or affiliated directly with PETE master's programs in the United States completed the survey portion of this research. Thirteen participants completed the survey in its entirety, and 11 completed all portions with the exception of the final 3 questions inquiring the prioritization of advanced standards. Results may not apply to additional existing PETE master's programs within the United States, as each program may be comprised of diverse aspects that make each program unique. Additionally, the evaluation of qualitative data summarizes findings from 4 out of 13 responding universities offering a master's degree in PETE, further narrowing external validity. Some programs indicated the availability of initial certification, creating a need to incorporate initial standards in master's degree programs instead of advanced standards. Programs offering a master's degree in PETE should continue to focus on meaningful incorporation the advanced standards, guiding principles, and utilize initial standards for initial licensure only. Programs should strive to continue and refine the Role of Leadership standard focus to relate explicitly to serving as a PE teacher leader. Though not all programs offered a leadership-specific track, all agreed on the importance of incorporating leadership initiatives for the master teacher. This component should continue to evolve with the PETE master's curriculum.

Data-driven teaching effectiveness through evidence-based practice presented itself as integral to producing advanced physical education teachers. Data-driven effective teaching is imperative in master's programs as more states continue to tie objective teacher assessment through edTPA, National Board Certification, and other subject-specific, performance-based assessments. Many programs are taking on a significant online/blended format to meet the needs of an ever-changing student population, indicating a need to align standard and objectives that

may be met via distance learning. The task of PETE master's professors and curriculum planners should be to seek out meaningful ways of incorporating advanced standards, guiding principles, and initial standards (as necessary) to facilitate online learning relevant to teaching physical education in the K-12 setting. Enrollment management quickly manifested as a prevalent theme. This recruitment and retention focus resulted in programs offering initial certification to candidates and admitting candidates without teacher certification and tied directly to the lack of adherence to SHAPE America's advanced standards. Additionally, a full to partial online component to PETE master's degree programs is becoming widespread from an enrollment management standpoint. Based on recent research and participant feedback, this online trend is a component that will continue to grow with time as a principal focus of programs as they strive to create master physical education teachers.

Conclusion

Some PETE master's programs participating in this research have not been designed intentionally around SHAPE America's advanced standards. Most programs do align with and utilize aspects of SHAPE America's advanced standards in curriculum design. No program required teaching experience for enrollment, while some required initial teacher certification in PE or another discipline. Some programs that did not require certification for admission did offer initial certification as part of their master's degree program. This lack of requirement for teacher certification means that masters' level programs offering initial certification should base their curriculum on initial teaching standards (SHAPE America, 2015), as initial standards are meant for programs training effective novice teachers. SHAPE America's advanced standards were designed with the licensed practitioner in mind, are intended for master's TCs possessing the knowledge, skills, and dispositions of a licensed educator (SHAPE America, 2015).

Lastly, the focus on leadership was predominant. This leadership focus, while tying directly to the advanced standard of Focus on Leadership, was utilized from an enrollment management standpoint. Programs offering leadership opportunities and initiatives beyond initial certification such as health science, adapted, or administrative cognate or certification, PETE master's programs incentivize candidates to complete their curriculum to enhance marketability upon graduation. The focus on enrollment management, though not a question posed to interviewees, presented itself as a vital portion of the findings. Enrollment management is the backbone of sustainability and advancement for programs and should continue to be an important focal point for institutions and instructors (Bulger et. al, 2016). Essential to program sustainability and success is the need to recruit students outside of typical demographic areas (outside of state/region).

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