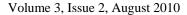
A Critical Review of American Academic Coaching Education Programs

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Abstract

Among the physical activity, exercise and health related academic disciplines, coaching education remains an under-developed field. Once closely aligned with physical education, coaching education has remained practically immobile despite the activity and growth in the related functional fitness and sport performance fields of exercise and sport sciences such as sport pedagogy, exercise physiology, and sport and exercise psychology. This article provides a historical context for the evolution of the academic discipline of coaching education within the broader field of physical education and a brief overview of coaching education as it exists within academia today. Recommendations and suggestions are made for the future growth and development of the coaching education discipline.





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A Critical Review of American Academic Coaching Education Programs

Despite the ever expanding popularity of sport in the United States and value placed on quality physical education as an academic discipline, the level of academic coach preparation as well as the coaching education discipline within university circles has remained surprisingly stagnant. While physical education and sport and the preparation of professionals for these fields have intertwined historical roots, academically, the evolutionary path of each discipline has been very different. This article is designed to provide an overview of the past, in an effort to better understand the context and challenges of academic coaching education. A synopsis of present day coaching education as it exists within academia and the related concerns will be provided. Finally, challenges and ideas regarding the future of academic coaching education and the roles and responsibilities of university-based coaching educators will be addressed in an effort to foster discussion regarding the professional growth of both the profession of coaching and academic discipline of coaching education.

Historical Roots of Interscholastic Sport as Part of American Education

Before the turn of the 20th century, progressive education ideas were impacting most institutions in the United States, including education, government, and monetary systems (e.g., student –centered curriculum, direct election of senators, antitrust legislation, and federal income tax) (Buck, Jable, & Floyd, 2004). With G. Stanley Hall's two-volume work on *Adolescence* in 1904 there was recognition of a defined period of growth and development from childhood to adulthood associated with social factors that impacted learning. Hall believed that "play" was a great facilitator of learning (Jable, 1979), and therefore there was a growing acceptance of structured physical activity as part of a child's education.

With the recognition of different developmental periods and John Dewey's work emphasizing a *child-centered*, *natural education*, the European influence on American physical education evolved from formal gymnastics and calisthenics to human development through educational movement, play, games, and sport (Jable, 1979; Siedentop, 2001; Zeigler, 2005). According to Siedentop, "the progressive movement changed physical education radically and brought sport into the school curriculum, creating a philosophical position with which sport, fitness, and physical education were fundamentally interrelated," (2001, p. 38).

Dewey and other prominent progressive physical educators (e.g., Thomas Woods, Clark Hetherington, and Luther Halsey Gulick) promoted sport and games as they encouraged psychosocial as well as physical development. Woods wrote a treatise titled, *The New Physical Education* which formalized his vision for the field. "With the popularity of *The New Physical Education*, games and sport gradually became the major component of the physical education curriculum because physical educators viewed sport as a means for the socialization of American youth and the assimilation of American culture" (Sage, 1997, p. 321). The overwhelming social belief was that youth could develop good habits and attitudes conducive to good citizenship (e.g., cooperation, discipline, teamwork) through participation in games and sport, which still believed today. Interestingly, as support for the importance of games and sport grew in the United States,

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physical education within the American school system changed from a legitimate part of the academic curriculum to activities that were an extension of the school day (or after-school activities).

While Woods and others promoted the concept of a *New Physical Education*, Dr. Gulick initiated the educational sport movement in the public schools. Gulick believed in the potential social value of sport and established the Public School Athletic League (PSAL) in New York City. PSAL was an attempt to "rescue the youth – especially the males – from the squalor and crime of overcrowded and unsavory urban districts" (Buck et al., 2004, p. 92). The focus of the PSAL was on educational athletics or opportunities for a large number of boys (and girls) to participate in sport as part of an after-school activity; in essence, it was the philosophy of "sport for all" (Jable, 1979). With the overwhelming success of the PSAL in NYC, several other cities formed PSALs. And by 1910, millions of school children were participating in organized athletic programs which resulted in the institutionalizing of interscholastic sport programs as part of the American educational system (Davis, 2009; Jable, 1979). See Jable (1979) for more information on the beginnings of interscholastic athletic competition and the PSAL.

There was a surge of educational movements occurring in the United States in response to concerns of children's health, which resulted in the establishment of playgrounds and camping sites, YMCA/YWCA, and school health programs (Siedentop, 2001), but physical education was not a compulsory subject in every state and so the type of physical activity in schools varied widely. Although there were several physical activity, health, and sport related movements flourishing in the United States, they were all operating independently of each other. For example, J.F. Landis conducted a study on high school athletics in the twenties. The study included 209 secondary schools across 23 states. Since many schools did not have adequate facilities, instead of offering physical education within their curriculum, the school offered high school athletics by utilizing public facilities or sharing facilities with neighboring schools (Mills, 1979). Administrators began hiring athletic coaches as full-time physical education teachers which forced educators to "justify" the existence of athletics as part of the educational system.

In an article which focused on the emphasis placed on interscholastic sport in American education from 1920-1939, Mills (1979) cited a 1932 study by Brammell which was the first study the authors could find documenting who was coaching the interscholastic teams during this era. Of the 327 schools in this study, the director of physical education was typically the person coaching the teams, thus the coaches of interscholastic sports were regular members of the high school faculty. By the early 1930s the State of Ohio was one of the first to specify coaching requirements that paralleled teaching requirements. They required full-time and part-time teachers of physical education and athletic coaches to have a specified number of semester hours earned in health and physical education (Mills, 1979). Thus, the training of a physical education teacher and an athletic coach was viewed as synonymous. By the 1920s and 1930s, education through the physical was the norm, and with many states adopting compulsory physical education laws, the credibility of the profession was beginning. In an attempt to further the status and credibility of the field, several different field assessments were created (e.g., psychomotor skill assessments, Sargent jump test, Physical Fitness Index).

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According to Buck et al. (2004), limited funds were available for research in physical education; the little research that existed dealt mostly with physical and motor testing. Physical education programs in higher education focused only on one outcome – the training of physical education teachers and coaches for public schools and faculty for college physical education preparation programs. "Teacher preparation in physical education closely followed the trends and fashions in the broad field of education, since many college physical education teacher departments were component parts of Colleges of Education" (Sage, 1997, p. 7).

Park (1987) noted that "in spite of the aspirations of Gulick and other physical educators, many of whom were medical doctors, few made any effort to advance physical education as a science by engaging in theoretical endeavors or developing research programs of high scientific standards" (cited in Sage, 1997, p. 7). However by the 1950s and 60s, the focus of physical education preparation began to change and a movement towards the scientific study of physical education was initiated (Buck et al., 2004). Physical education programs in colleges and universities were required to justify their field as an academic discipline that could be studied scientifically. In an attempt to meet this challenge, many of the sub-disciplines that currently define the academic field were developed. These non-teaching options (i.e., exercise physiology, biomechanics, motor learning, sport psychology, sociology of sport education, history, philosophy, comparative physical education and sport, and administrative theory) emerged as scholarly areas that applied disciplinary concepts and theories to exercise and sport (Sage, 1997; Zeigler, 2005).

Concurrently, many departments renamed themselves (e.g., Department of Kinesiology, Department of Physical Education and Sport Studies) in an attempt to better describe the expanded make-up and missions which now included the preparation of fitness professionals, sport managers, sport psychologists, as well as teachers and coaches. And, in some cases, some sub-disciplines left the physical education department to become members of other colleges or departments on campus (e.g., exercise physiology went to medical schools, recreation went to outdoor programs such as forestry).

One of the younger sub-disciplines is sport pedagogy, even though the preparation of teachers and coaches has had a long history and was the earliest foci of physical education programs. Sport pedagogy as a sub-discipline represents a significant advancement in the study of physical education and includes scientific inquiry regarding teaching methodologies and curriculum development in the K-12 school setting, teaching of sports skills, and coaching athletic teams in the school, club, and community setting (Buck et al., 2004; Siedentop, 2001). As the sub-discipline established itself as a profession, the curriculum has embraced specialized courses in teaching and teacher-education research such as, Elementary Methods of Physical Education, Adapted Physical Education, Secondary Methods of Physical Education, Curriculum Development, Test and Measurement, or Assessment Methods. However, similar course work in the area of coaching education lagged.

In addition, the scholarship in the area of teacher education has flourished. In the past four decades scholars have investigated effective teaching, the interaction of teachers and students, and student learning. Graduates from university teacher education programs trained in the pedagogy have developed physical education teacher-education (PETE) programs based on recent teacher-education research. Currently, accredited PETE programs

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in the US are designed to develop the knowledge, skills, and dispositions in teachers associated with research-based pedagogy. Although specialized, research-based coursework has been developed and implemented within PETE programs, the same cannot be said for the curriculum in Athletic Coaching (AC).

Comparison of PETE and AC today

This section of the paper will compare PETE and AC programming and development as academic fields from the following perspectives: 1) professional faculty or trainers, 2) education and training, 3) employment, 4) professional associations, 5) journals, 6) standards, 7) accreditation, 8) certification, and 9) key areas of scholarship.

Professional faculty and trainers

Who is delivering the curriculum and what is their expertise? To more closely examine this question, it is important to examine the occupational socialization of the professionals or characteristics that delineate a group of individuals in an occupation over time (i.e., job-related behaviors). McPherson (1976) identified several of these characteristics for three generations of sport sociologists which the authors will apply to the areas of PETE and AC.

First-generation professionals had a strong interest in the field (i.e., PETE or AC) but were not formally trained at either the undergraduate or graduate level in the discipline. An example of a first-generation professional is someone who received their education in a related field (e.g., medicine), and then applied that knowledge to physical education or sport (e.g., Edward Hitchcock, Delphine Hanna). These individuals had a significant philosophical impact on the training of the next generation of professionals. The second generation was professionals who received formal training in physical education or sport at the graduate level, but probably did not receive the same type of specialized courses at the undergraduate level. Second generation professionals who impacted the profession include Thomas Woods, Luther Halsey Gulick, Dudley Sargent, and C. H. McCloy. The third generation of professionals received specialized training in sport pedagogy at both the undergraduate and graduate level taught by second-generation professionals. In the area of PETE, there are numerous examples of professionals at institutions across the US who are considered third generation, however, in the area of AC, the authors believe there are not yet any third-generation professionals. Many of the faculty or trainers currently delivering AC education are first-generation professionals (former coaches who are teaching or professionals who were trained at the graduate level in a sub-discipline other than coaching but with a strong interest in AC).

Education/Training

To be able to teach physical education in the public schools, students must have a teaching license, which requires them to complete a series of foundational undergraduate courses in the areas of science or sport sciences (e.g., biology, anatomy, biomechanics, exercise physiology) and social sciences (e.g., psychology,

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sport/exercise psychology, sociology), content-specific courses (e.g., curriculum, teaching of _____, fitness education), or pedagogical courses (e.g., teaching methods for elementary and middle school and high school, field experiences, student teaching). Most PETE programs have a very systematic plan of study which culminates in a semester long student teaching practicum before earning the bachelor's degree. The requirements for a bachelor's degree in AC vary depending on the institution, but there is some similarity with course work in the same three areas (foundations, content-specific, and pedagogy). In both AC and PETE, there are national standards which guide the curriculum development process (NASPE, 2006; NASPE, 2008).

In many states, if you have a teaching license in any subject area you are not required to complete any additional course work in order to coach. However, many colleges and universities offer minors or areas of emphasis with course work specifically related to AC. At the master's and doctorate levels, PETE students complete advanced course work typically in a content-specific area, pedagogy and research. Do AC students complete similar course work as part of a master's and doctorate program? The curriculum composition may be different since many master's level programs are servicing high school teachers who may or may not have foundational coursework in the area of physical education or the sport sciences. Thus, an important question to ask is do these programs have content covering foundations courses (e.g., Exercise Physiology, Biomechanics/Movement Analysis, Psychology of Coaching) with little-to-no course work in content-specific knowledge because of the limited credit hours? See Table 1 for what the authors believe is a breakdown of educational training by degree after their informal review of current AC programs.

Employment

There is an important difference between PETE and AC in terms of the available areas of employment and the population with which the graduates of each program will be able to work. Graduates with a PETE bachelor's degree are physical educators who can teach students pre-Kindergarten (PK) through grade 12. With a masters degree, individuals can continue to teach at the PK-12th grades or could opt to teach in higher education, but they typically teach physical activity courses or serve as a clinical instructor teaching activity-based pedagogy classes or supervising field experiences and student teaching in PETE programs.

One does not see the same distinction between educational level and employment in AC. In fact, there are rare instances where athletic coaches who have earned a Bachelor's degree may be coaching at a highly competitive level (e.g., college) while working on an advanced degree. In AC, is there advanced knowledge which all individuals should possess before working with higher skilled athletes? Or, is the foundational knowledge acquired through a four-year degree enough to work with athletes at any age or competitive level? Cushion, Armour and Jones (2003) asked: "How can a single coach education program realistically prepare coaches for a myriad of contexts and contextual factors?" (p. 221). This is a very important philosophical discussion point which athletic coaching educators need to address. See Table 1 for comparison.

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Professional Associations

Both PETE and AC have professional associations at the state, national, and international levels where the focus is on the improvement of professional practice and the enhancement of knowledge for both the educator (PETE and AC) and for the practitioner (PE teacher, athletic coach) (refer to Table 2). Most of the associations have annual meetings or conferences for its members as well as specialized events (e.g., PETE Conference, Pipeline workshops, etc.). Professional conferences/meetings are important in a profession as they bring together interested persons to get acquainted with each other and share research/practice ideas, as well as to establish social ties or networking (Sage, 1997). While some associations serve both fields (e.g., AAHPERD or NASPE), there are other associations which focus only on the one field (e.g., sport specific associations).

Journals

One of the responsibilities of a profession is the dissemination of research and best practices. For both areas, PETE and AC, there are a number of outlets for research-based articles and application of theory articles for practitioners. See Table 2 for examples of journals in both areas.

Standards

Both fields have published national standards to guide programs in the training of future teachers and coaches. In PETE, the 2008 National Physical Education Teacher Education Standards (NASPE, 2008) outline the competences which students receiving an initial teaching license in physical education should be able to demonstrate. There are also the 2008 Advanced Standards for Physical Education (NASPE, 2008) for students who have experience in teaching but completing an advanced degree. The *National Standards for Sport Coaches* (NASPE, 2006) is the only set of standards which outline the skills and knowledge that coaches should possess regardless of degree attainment.

Accreditation

In PETE, there are two national accrediting systems (i.e., NCATE, TEAC) which institutions can utilize to review their programs. In some states, PETE programs submit materials to be accredited through their department of education. In comparison, there is only one accrediting body in AC – the National Council for the Accreditation of Coaching Education (NCATE). Institutional accreditation in AC is purely voluntary, where in many states accreditation of teacher education programs (including PETE programs) is mandated by the state.

Certification

To teach in any state, one must have a teaching license. In comparison, the requirements to coach in the public schools vary state by state. For more information regarding the requirements for scholastic-based coaching in

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each state, go to www.nfhslearn.com on the National Federation for High Schools and click on "State Requirements" to view the summary of the National Coaching Report (NASPE, 2008).

Areas of Study

In PETE, several lines of research have been established which have influenced the content of textbooks as well as the content of workshops for practitioners, and the diverse physical education curriculum (e.g., use of different curricular models) and instruction (e.g., different instructional strategies, use of assessment) implemented in the PK-12th grade settings (Siedentop, 2001). These areas include teacher behavior, student behavior, teacher effectiveness, teacher issues, and curriculum. In the area of AC there have been scholarships on some of the same topics (e.g., coaching behavior, coaching effectiveness) but not the same volume as in PETE and it has been spread inconsistently across other discipline areas. In addition, according to Côte and Gilbert (2009) a major problem with the research completed in AC is the inconsistent terminology (e.g., coaching effectiveness has been measured by win/loss record, athlete satisfaction or enjoyment, and by years of coaching experience) and the lack of recognition regarding the complexity of the coaching context.

Based on their review of the AC literature, Côte and Gilbert (2009) propose a conceptual model of coaching. The authors believe AC needs to look closer at this conceptual model to determine if AC programs and practices are based on current literature.

Conceptual Model of Coaching (Côte & Gilbert, 2009)

Côte and Gilbert's (2009) conceptual model of coaching consists of three components: coaches' knowledge, athletes' outcomes, and coaching contexts. A brief overview of each component will be presented in this paper with its relevance to AC.

Coaches' knowledge

Based on AC research, Côte and Gilbert (2009) identify three categories of knowledge coaches need to possess: 1) professional knowledge, 2) interpersonal knowledge, and 3) intrapersonal knowledge. Professional knowledge includes "declarative knowledge in the sport sciences, sport-specific knowledge, and pedagogical knowledge with accompanying procedural knowledge" (p. 310). In the category of interpersonal knowledge, coaches need in-depth knowledge of how to effectively interact with others (athletes, other coaches, administrators, parents). And in the category of intrapersonal knowledge, a coach needs to know how to understand oneself and reflect on his/her practice.

AC needs to review curricula to determine which courses address each of the three types of knowledge. What percentage of courses provides the declarative knowledge versus procedural knowledge and how are those courses sequenced? Are programs offering sport-specific knowledge classes with accompanying procedural knowledge? Do AC pedagogical courses include interpersonal and intrapersonal knowledge? And, in the courses that programs offer, is the information presented based on evidence-based practices?

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Athletes' Outcomes

Côte and Gilbert's (2009) conceptual model proposes the four C's of Competence, Confidence, Connection, and Character/Caring. In this component of the model, the research has focused on the desirable outcomes that should emerge for coach-athlete interactions in any sport setting.

Athletes' outcomes are addressed in multiple courses within AC curricula, such as sport psychology/psychology of coaching, coaching methods, sport-specific courses, among others. However, emphasis on certain athlete outcomes will vary depending upon several contextual factors (e.g., recreational versus competitive level, developmental level – youth versus young adult). Are AC programs adequately covering this content if the program is trying to meet multiple needs?

Coaching Contexts

The third component of the model emphasizes the importance of the contextual continuum of sport coaching. With regard to coaching context, one needs to examine the performance demands (e.g., recreational vs. Olympic level competition) as well as the developmental needs of the participants. As such, the academic discipline of AC must be able to address the requirements for coaching the novice participant who is learning to play the sport (participation coaching) as well as the elite participant whose needs are very different (performance coaching).

Within what context is AC preparing future coaching professionals to work? Realistically, at the current time, can a singular program prepare students adequately across contexts? What type of coursework and sequencing is necessary for proper cross context education? For example, if one refers back to Table 1, should AC programs at the bachelor's level prepare professional sport coaches (PSCs) for the participation context, while the master's or doctorate levels would build upon this knowledge to prepare PSCs for the performance context?

A Closer Look at Modern Academic Coaching Education Programs

As reviewed, PETE and AC have followed divergent paths and are currently in very different places; however, it should not be assumed that AC is at a dead-end. Instead, to continue the analogy, while PETE built a smooth highway AC is moving forward slowly on an unimproved road without a clear idea of where the road goes. If AC is to evolve, key issues regarding both the condition of the road and the direction it is heading need to be addressed.

In a remarkably extensive and comprehensive analysis of the literature, Gilbert's *An Annotated Bibliography* and *Analysis of Coaching Science* report (2002) looked at the level of scientific inquiry within coaching education over a 31-year period, utilizing a model that had been used to conduct a similar analysis of teaching in physical education research (Silverman & Skonie, 1997). The report found only 611 research-based articles

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between 1970 and 2001 that met the criteria for being scientific-based research and contributed to the academic field of coaching education. In an updated list of coaching science studies, Rangeon and Gilbert cataloged an additional 335 articles published between 2001 and 2008 (W. Gilbert, personal communication, August, 27, 2009). The level of academic scholarship within coaching education remains thin and scattered across areas, a concern with implications for the evidence-based teaching practices (or lack of), credibility of academic-based AC programs, and development of qualified second- and third-generation professionals in the AC field.

Due to the dedication of first-generation AC professionals, AC has established itself within some academic systems. By the end of the 1990's, professionals with a passion for coaching had created approximately 179 academic programs in the United States that offered some level of certification or diploma in athletic coaching education (McMillin & Reffner, 1998). In their *Directory of College and University Coaching Education Programs*, descriptions of 148 undergraduate minors or certificate programs, 10 undergraduate majors, and 21 masters level programs tailored towards coach education were provided. In the decade that followed, the number of programs has remained about the same. Further, as of spring 2010, only eight of these academic programs had received full NCACE accreditation status and just two others had achieved provisional status (NCACE, 2010).

In an informal review of the current AC programs that label themselves as providing a minor, certification or degree in coaching or coaching education, there has been very little change in the number of opportunities at each level or in the scope of the academic preparation over the past decade. Minors and certification programs account for the bulk of the training programs. Many of these programs are housed within departments such as Heath, Physical Education, and Recreation as well as Kinesiology, reflecting the professional evolution of the bigger field of physical education. However, AC curricula, particularly within undergraduate programs, remain centered on general and entry-level coursework such as general coaching principles (pedagogical), injury care/first aid (professional coaches knowledge – declarative and procedural), sport-specific coursework (with some accompanying procedural knowledge), and general coaching principles (pedagogical) classes. Noticeably lacking are upper level exercise science-based classes (professional coaches knowledge - declarative) and courses with an emphasis on the applied sport science knowledge (professional coaches' knowledge - procedural).

Teaching certifications or credentials are recommended in association with many of the current AC programs, suggesting that the programs are designed to prepare coaches only within the scholastic model of sport. Within this context, coaching education is a side discipline to complement another career pathway, making it unlikely that an individual would be in a position to develop as a third- or even a second-generation coaching educator.

One of the few changes in the curricular design appears in the shift, particularly among masters programs, to accommodate blended and online education over traditional on-campus programs. The majority of these programs are also non-thesis based, further limiting the preparation of second-generation professionals, the likelihood for the preparation of third-generation professionals within the field of AC, and contributing to the lack of AC scholarship.

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An interesting note in the examination of the evolution of academic preparation for sport coaching is what is occurring outside the walls of physical education and within other academic disciplines. In the years since physical education distanced itself from coaching, other academic areas have begun to embrace sport coaching and the preparation of coaches. The growth of exercise science and the sub-disciplines related to functional fitness, health and wellness and peak performance exercise physiology, have led to the emergence of related degree programs. Often labeled strength and conditioning, kinesiology, and exercise science, these programs are not explicitly called coaching degrees. However, the sport science preparation is commonly geared towards the fields of personal training, wellness training, exercise testing, and strength and conditioning, as seen in the related program materials. Unfortunately, since these programs have been developed outside of the physical education realm, they contain little if any preparation in the pedagogical foundations that make up the heart of true coaching. While heavy in the foundational sciences and applied sciences, they do not address sport pedagogy or embrace a holistic approach to athlete development. As such, with regard to Côte and Gilbert's (2009) conceptual model of coaching, these programs provide only professional knowledge. Students trained within these programs lack training in interpersonal and intrapersonal knowledge, athlete outcomes, and coaching context – all key elements according to Côte and Gilbert's (2009).

The Future: Building for the Third Generation

As the value of physical well-being and lifetime activity continue to blossom in our collective consciousness and the scientific knowledge related to health, wellness, and sport preparation and performance continues to grow, the academic coaching education discipline needs to grow as well. Informed by both the historical path and by the evolution of related disciplines, first-generation coaching educators have both an opportunity and a professional responsibility to raise questions and engage in discussions designed to build the field. Primary questions for individuals and programs in the field center on developing a clear sense of who AC is, defining and acknowledging the many different contexts of coaching, growing the evidence-based literature related to both professional preparation as well as applied practices, and determining how to best serve future professional coaches.

Building a Home for AC

One of the most fundamental questions facing AC, is where does this discipline belong? In the eyes of many PETE programs and academia at-large, AC is still struggling to justify its existence as a legitimate academic discipline. Even AC programs argue over identity, what the field should be doing, and what purposes the field should serve? The initial challenge for many will be to justify through clear evidence-based information, the need for and value of AC. Two main research lines addressing 1) evidence-based best practice in coaching education practices (e.g., Cushion, 2001; Jones, 2000), and 2) evidence-based practices regarding applied coaching science (e.g., Abraham & Collins, 1998; Stone, Stone, & Sands, 2005) are needed to strengthen AC academically. Academic recognition and validation are an important first step in providing the resources for the growth of the discipline.

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Another key issue that needs to be addressed, perhaps concurrently, is the fact that many AC programs currently exist as an extension to, but not an integral part of, existing PETE structures. Is PETE the right place for AC? Has AC grown beyond being a sub-discipline in the shadows of PETE? Is it time to build its own house with similar or different blueprints? Or does it stay an annex? It should be clear at this point that collectively, as a field, AC is far from being able to decide exactly where it best fits. And like many fields, it is likely that there are many ways this can be handled (e.g., it is possible that at one school AC is best housed within a PETE program, while at another school, it is best housed within a recreation program based on resources, program emphasis, etc.). Arguments and discussions can be made for many different potential configurations that could serve as a potential response to Cushion et al.'s (2003) concerns related to a single program preparing coaches for a myriad of contexts and contextual factors. It is exactly these conversations that need to occur among the generations of coaching educators to enable the growth of AC.

Another concern related to the question of "home," is that physical education departments are no longer the exclusive address for the academic disciplines and degrees that relate to the preparation of coaching professionals. Future coaches are being prepared in undergraduate and masters level programs far removed from PE departments. For these students, the connection between the roots of AC, sport pedagogy, and the new areas of academic preparation are all but non-existent. What can or should coaching educators do to help embrace and fuse the multiple important disciplinary areas that should unite and inform coaching education? Can AC exist with multiple residences in multiple neighborhoods and still provide the cohesive, comprehensive and applied education necessary for the field?

Who Will Build the House?

Currently, the AC workforce is made up of passionate first- and potentially a scattered few second-generation professionals. Interestingly, while additional second-generation colleagues potentially exist across related disciplines (e.g., sport psychology, exercise science, kinesiology), the lack of a clear collective voice and professional organization serves only to further isolate the field, leaving many unaware of the history or the future of the discipline. Early-generation professionals who have a passion for coaching and/or the academic preparation that spans a wide range of disciplines, are scattered among the many conferences, journals, and other academic outlets. Bringing these individuals together will be an interesting but important challenge.

Who is the House For?

As the Côte and Gilbert (2009) conceptual coaching model suggests, coaching like any profession is complex. Few would argue that while some foundational elements are the same, elementary school, middle school, high school and collegiate level teachers require differing academic preparations with regard to both context and academic discipline area. Within coaching, Côte and Gilbert (2009) highlight the importance of the differences between participation and performance sport contexts. Further, athlete development models such as the Canadian Long Term Athlete Development model ("An outline of LTAD", 2009) and the USA Tennis athlete development model (e.g., Otis, 2010) provide detailed information regarding different levels of athlete

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development across physical, social, and cognitive skill levels. Yet, the current coaching education models typically treat coaching education with a "one size fits all" approach.

Educating coaches, without providing a clear path to job opportunities, is another element that currently undermines AC. An academic discipline without a profession that values and recognizes the training has no relevance. This concern is particularly true of programs that treat coaching as uni-dimensional with singular classes to address elements of coaching without delineating the contextual levels of knowledge. Table 3 presents a career concept map used within the West Virginia University undergraduate Athletic Coaching Education program. Not only does the map provide students with academic guidance to enhance their professional preparation options (e.g., highlighting and suggesting areas of emphasis or minor studies designed to best complement their education based on the type of coaching related profession they are most interested in), it also provides the department with clarity for program content development designed to addresses the educational needs of future coaching professionals relative to the contextual requirements of the areas where they are most likely to work.

To continue to grow, AC needs to intentionally cultivate graduate level students as future athletic coaching educators (second and third generation). In the short term, within related programs, AC educators need to work with graduate students to facilitate their coaching interests within their discipline. We also need to move towards the creation of programs that are designed to train and develop true third-generation professionals – those prepared across key areas to return to and grow AC programs. Currently, only a singular program, the Eastern Tennessee State University's PhD in Sport Physiology and Sport Performance, has begun to address this need.

Choosing the Right Building Materials

As noted, AC programs can benefit from determining the profession context that a program is designed to address. For example, an undergraduate program may be designed for coaching preparation of youth sport professionals while another program emphasizes and provides the specialized knowledge for disability sport. This is not to suggest that a singular program can't provide both within a program if it was to offer a common base curriculum and specialization tracks. However, a program that tries to be all things to all contexts following just one model of coaching is destined to fall short at the expense of both the student and the profession.

The National Standards for Athletic Coaches [NSAC] (NASPE, 2006) provides a solid foundation for coach preparation at the entry and participation level of sport. As an academic discipline, AC needs to both embrace and strive beyond the NSAC to develop educational programs in line with collegiate level rigor. Creating an academic program that is rooted in foundation sciences (e.g., biology, anatomy) crosses many sub-disciplines (e.g., sport psychology, nutrition, biomechanics, sport pedagogy) and requires the development of decision making, application and integration skills, and that ultimately needs to be holistic, can seem like a daunting task. Fortunately, AC does not need to invent the wheel to accomplish this task. Other academic disciplines,

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such as nursing, may provide both a practical and successful model. Nursing programs are academically challenging, rely on basic scientific knowledge with a heavy emphasis on practical application skills, and provide an outlet for both practitioner training (RN's) as well as for individuals interested in becoming researchers and educators within the field. Further, nurse preparation programs provide track style training that allows for specialization across the many sub-disciplines of both science and administration that are possible within the field. Naturally, no discipline will provide a perfect example, but the preparation of professional nurses provides an interesting paradigm worth exploring.

Conclusion

This article sought to provide a brief historical perspective coupled with a critique of the current status of the AC profession in an effort to raise questions and spark discussion. We recognize that while many questions were raised, few, if any real answers were given. We do not presume to suggest that we have answers to all or perhaps any of the questions poised. As AC educators are passionate, not only about sport and coaching, but also about the professional development of coaches and the academic discipline of AC, the authors sought to share the questions they struggle with in their efforts to raise the professional bar. As colleagues, we put forth the following question: What are our professional and ethical responsibilities to the PSCs we train, the profession of AC, and to the sport itself? How will we make a difference through our research, teaching, and passion?

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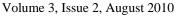
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Table 1.
Comparison of PETE and AC Course Work and Levels of Employment by College Degree

	Physical Education Teacher Education (PETE)		Athletic Coaching (AC)	
	Educational Training	Employment	Educational Training	Employment
Bachelors	Foundation ('ologies'), Content Specific and Pedagogical Courses	Teach PK-12 th	Foundation ('ologies'), Content Specific and Pedagogical Courses	Coach Community, Club, and College levels
Minor			Sport Specific, Pedagogical Courses	Coach Community, Club, MS/HS, and College levels
Masters	Advanced Content Specific, Pedagogical, and Research Courses	Teach PK-12 th , College- aged, and Pre-Service Teachers (PSTs)	Foundation ('ologies'), Content Specific, Pedagogical, and Research Courses	Coach Community, Club, MS/HS, and College levels; Teach college-aged and Pre- Service Coaches (PSCs)
Doctorate	Advanced Content Specific, Pedagogical and Research Courses	Teach college-aged and PSTs	Foundation ('ologies'), Pedagogical and Research Courses	Coach College and Elite Levels; Teach college-aged and PSCs

Note: Foundational Courses include courses in the area of Science/Sport Science such as Biology, Anatomy, Biomechanics, and Exercise Physiology and in the area of Social Sciences such as Psychology, Sport/Exercise Psychology, and Sociology. Content-specific courses include courses in Curriculum and Theory, Teaching of a particular activity (e.g., individual sport, team sports, fitness). Pedagogical courses consist of specialized teaching methods (teaching elementary PE, teaching MS/HS PE), field experiences, and student teaching).

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Table 2.

Comparison of PETE and AC by Characteristics of a Profession.

irison oj 1 ETE ar	nd AC by Characteristics of a Profession.		
	Physical Education Teacher Education (PETE)	Athletic Coaching (AC)	
Associations	American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD), State Associations for HPERD, National Association for Kinesiology and Physical Education in Higher Education (NAKPEHE), International Society on Comparative Physical Education and Sport (ISCPES)	American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD), sport-specific coaching Associations, International Council of Sport Science and Physical Education (ICSSPE)	
Standards	Initial Standards in Physical Education Teacher Education	National Standards for Sport Coaches	
Accreditation	National Council for the Accreditation of Teacher Education (NCATE), Teacher Education Accreditation Council (TEAC), State-level accreditation by Departments of Education	National Council for the Accreditation of Coaching Education (NCACE)	
Certification	teaching licensure	state specific requirements	
Journals	Journal of Teaching Physical Education (JTPE), Journal of Physical Education, Recreation and Dance (JOPERD), Strategies, Journal of Sport Pedagogy, Research Quarterly for Sport and Exercise (RQSE)	Journal of Coaching Education (JCE), Journal of Sport Sciences, International Journal of Sport Science and Coaching, Strategies	
Areas of Study	teacher behavior, student behavior, teacher effectiveness, teacher issues, curriculum	Coaching behavior, coaching effectiveness (win/loss, athlete satisfaction or enjoyment, years experience)	

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Table 3.

Career Concept Map for Undergraduate Athletic Coaching Education (ACE) Majors at West Virginia University.

