The Impact of the Program for Athletic Coaches Education (PACE) Certification –MIVCA Coaching Association

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THE IMPACT OF THE PROGRAM FOR ATHLETIC COACHES EDUCATION (PACE) CERTIFICATION - MIVCA COACHING ASSOCIATION

by

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This study identified the level of awareness, and perceived usefulness of the Program for Athletic Coach (PACE) by the Michigan Interscholastic Volleyball Coaches Association (MIVCA) (n=296). The study further examined: (1) the extent MIVCA coaches are engaged in PACE; (2) the relative importance of content delivered; (3) the important content to improve coaching; and (4) what the MIVCA coaches believed their personal investment should be in a coaching education program.

The participants were asked to complete a survey that ranked the importance of the domains and standards found in the National Standards for Athletic Coaches (NSAC). Results indicate a relatively low level of engagement, but high level of intent and support for coaching education. The coaches believed the three domains of teaching/administration, social/psychological aspects and tactics/strategies as the three most important, while risk management and injury prevention were considered less important. Coaches expressed willingness to personally investment in the coaching profession, and that mandatory coach education, though necessary, would be difficult.
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CHAPTER 1

INTRODUCTION

"In the U.S. more than 10 million children under the age of 16 play organized sports, coached or otherwise supervised by more than a million adults, many of them unscreened male volunteers—which is to say, men on whom background checks have never been done" (Sports Illustrated, 1999, p. 43).

Youth sport has always been a special area of interest in the study of sport and continues as such into the new millennium. Public displays of poor sportsmanship that lead to violence, disclosure of unacceptable athlete/coach behavior, increased accusations of negligence and litigation, athlete attrition and reports of coach sexual misconduct have raised the question of who is coaching Americas’ high school and youth sport programs. In Seattle between 1989 and 1996 nine settlements or jury verdicts in school sport cases exceeded one million dollars (Mac, 1998). The increasing number of liability suits against coaches and school districts makes the question of coach preparation and training a priority issue.

Litigation often claims a failure in coaches to properly instruct skills or technique, warn of inherent danger/risks, or gain appropriate training prior to assuming leadership responsibility in a sport program (Johnson, 1992). The appointment of unprepared individuals to coaching roles could lead to serious medical problems for the athletes and serious legal problems for the sport organization (Kelley, 1984).

A new area of litigation has emerged from complaints of harassment. The evidence is not clear whether the frequency of inappropriate relationships between
coaches and athletes has changed, although the reporting of such cases has markedly increased (Mac, 1998). For every child who reports being molested, sport experts suggest that at least 10 more keep their secrets unrevealed (Sports Illustrated, 1999). The reporting of child molestation in youth sports is about where the reports of rape in society were 30 years ago (Sports Illustrated, 1999).

Physical activity and sport participation has many positive physical and psychological benefits. It is widely accepted that sport participation increases one’s self-confidence, self-image, fitness level, and cardio-respiratory benefits including a lower resting heart rate, lower cholesterol and stress management. The Surgeon General defines moderate physical activity at roughly the equivalent to a physical activity that uses 150 Calories (kcal) of energy per day or 1,000 kcal per week. An example of moderate exercise would be playing volleyball for 45 minutes (Surgeon General Report, 1996). The Carnegie Corporation continues by stating the involvement of young people in sports produces multiple benefits for them. Sport programs promote responsible social behaviors, greater academic success, confidence in one’s physical abilities, an appreciation of personal health and fitness, and strong social bonds with individuals and institutions (Poinsett, 1996).

Sport participation is especially critical for girls, as female adolescents are much less physically active than male adolescents (Surgeon General Report, 1996). Young females in particular have been found to have significant positive social, emotional and physical outcomes as a result of participation in youth sport, high school athletics or recreational physical activity. Freedson and Bunker (2001) concur by stating that independently organized clubs, recreational programs, school-based
physical education and sport programs are ideal ways to facilitate health related and fundamental skills for lifetime activity.

Female athletes of all ages are healthier, more academically successful, and have higher self-esteem than non-athletes (The Feminist Majority, 1995). The President’s Council on Physical Fitness and Sport supports the notion of physical activity having a positive impact on the overall health of girls. The report indicates girls who are physically active have better fitness and adequate strength and flexibility (Freedson & Bunker, 2001).

Participation in High School and Youth Sport

A recent estimate by Ferguson (1999) suggests 40 million American youth participate in various sport organizations. Ewing, Seefeldt and Brown (1997) identify that approximately 22 million youth participate in agency-sponsored sports (Little League Baseball, Pop Warner Football), 2.5 million in club sports (pay for services, such as gymnastics, ice skating, and swimming), and 14.5 million in recreational sports programs (those sponsored by recreational departments).

High school sport is at an all time high. The National Federation of High Schools (NFHS Survey, 1999) reports that the number of high school athletes participating nationally in the 1999 – 2000 school year as 2,675,874 females, and 3,861,749 males. Basketball, track & field and baseball are the most popular sports for boys, while basketball, track & field, and volleyball (382,755 volleyball participants) continue to be the most popular sport for girls nationwide (NFHS, 2000). High school participation in Michigan is also at an all time high. The Michigan High School Ath-
The Michigan High School Athletic Association (MHSAA) recorded an all-time high of 282,426 participants in sanctioned sports during the 1999-2000 school year, (MHSSA, 2000). Of that figure, 41.9% of the participants were female, totaling 118,292 participants, and 164,134 participants were male. In contrast to the NFHS report, high school volleyball in Michigan was the most popular sport for girls (20,943 participants) for the fourth consecutive year (MHSAA, 2000).

As sport continues to become more popular and as society continues to invest both financial and human resources, one issue will remain constant, how to attract and retain qualified personnel as coaches (Cohen, 2000). Efforts to improve conditions in education-based sports have identified that high school and youth athletes will only experience the positive outcomes of athletic participation if supervised by qualified coaches (Poinsett, 1996).

Who Is Coaching?

The rise in participation by female and male athletes has in turn created a universal need for a greater number of qualified high school and youth coaches. Currently, there are 3.1 million coaches working in all levels of youth sport (Clark, 2000), a 13 to 1 ratio of coaches to athletes. In Michigan there are over 11,000 high school coaches (MHSAA, 2000), a ratio of 25 to 1 of coaches to.

One critical area in which the United States lags behind other countries is in the formal preparation of coaches (Clark, 2000). Young coaches in the United States enters’ the coaching profession with little knowledge regarding instruction, skill development or formal training. While other countries, require formal training, exams,
and certificates and licensing, American sport programs at all levels remain dominated by amateur coaches (Clark, 2000).

In the United States the two roles of teaching and coaching are traditionally linked, and have in the past served in a dual role (Chelladurai, Kuga, & O’Bryant, 1999). Chelladurai, et al., (1999), suggest that the primary motivation for becoming a teacher/coach is that the role provides the social support and rewards to satisfy important personal needs. Even so, this may not be enough in today’s coaching and teaching world, as more non-teacher coaches are hired to fill vacant positions. A 1992 study finds that 89% of the coaches surveyed were teachers, but only 31% were teaching physical education. Therefore, 69% of the coaches surveyed were making attempts to remain current in two unrelated areas of teaching (Stewart & Sweet, 1992). The MHSAA recommends to schools report personnel and occupational data of coaches hired from outside the school site. Summary data was not available describing the occupation background. Currently in Michigan (1999-2000) the number of non-teacher coaches is 657 at the high school level, and 326 at the junior high level. These numbers only reflect the voluntarily identified non-teacher coaches submitted from member schools.

Coaching education is needed to ensure coaches be competent, and qualified as more full-time teachers decide not to coach (Houseworth, Davis, & Dobbs, 1990). Sawyer (1992) concurs that in the past a significant percentage of the coaches were teachers who were experts in the physical growth and development of children. He suggests that there is a steady and rapid increase in the number of non-teacher
coaches who assume the responsibilities for training athletes who may have no formal training in traditional educational domains.

Bergmann-Drewe (2000) examines the relationship between coaching and teaching. Coaches are always referred to as the "coach" and never a "teacher." The "coach" title reflects a higher value given to sport, as opposed to education, in our society. Sabcock and Chandler–Garvin (1986) suggest that if coaching is such an important part of our educational experience, then we should require trained professionals, such as physical educators to coach. The reward systems within the school may favor coaching over teaching in terms of better job evaluations, job security, salary, and promotion opportunities (Chelledurai et al., 1999).

Coaching Education Requirements

The range of educational expectations is varied. Minimal expectation for high school and youth coaches range from a bachelors degree in teaching with a current teaching certificate, to having no educational requirement, a minimum age of 19 years old, with the encouragement to complete a recognized coach education program (McMillin & Reffner, 1999).

An example of a more rigorous state requirement is that of Colorado. The Colorado High School Activities Association (CHSAA) require non-certified teachers to register with the state high school association for terms of one, three or five years (American Sport Education Program, (ASEP), 2000). An extensive list of coaching requirements exists and includes such items as: evidence of skill in sport to be coached, documented coaching experience, successful completion of the state coach-
ing test, successful completion of a coach education program that includes sports medicine components, and current First Aid/CPR certification. Renewal of one’s coaching registration would include the completion of a college major or minor in coaching or teaching, and or documentation of the completion of 60 clock hours of coaching education activities (ASEP, 2000).

If coach education is required, then the general recommendation is that the coaching candidate have exposure to core courses in the principles of coaching, first aid and CPR, technical and tactical information specific to the sport, and prevention and care of sport injuries (ASEP, 2000). Research indicates that formal coaching education programs positively influence a coach’s ability to affect learning and performance, yet such programs seldom are mandatory and reach only a small minority of the nation’s approximately 3 million youth coaches (Clark, 2000).

Currently, ASEP reports that 36 states require coach education for non-teaching coaches, 15 states require coach education for all coaching candidates and 32 states require that their coaches fulfill the National Federation Interscholastic Coaches Education Program (NFICEP) course work (ASEP Report, 2000). The range of coaching education requirements by state and sport organization is extreme.

Coach Certification Process

Coaching education programs fluctuate in scope and breadth of program content or delivery. However, there are three common goals for formally preparing people for coaching roles. First, to allow the eventual development of trained coaches to provide a positive experience for their athletes. Second, to increase the professional-
ism of coaching, and third to increase legal protection and coach organizational skills (McMillin & Reffner, 1999).

Currently, there is no set definition for coach education. The Directory of College and University Coaching Education Programs (McMillin & Reffner, 1999) reports a total of 179 higher education institutions in the United States offering some sort of coaching education major, minor or graduate degree program (148 undergraduate minors, 10 undergraduate majors and 21 graduate degree programs).

Forty-five percent of the 179 undergraduate and graduate programs combined require sport-science courses, 59% required sport specific technical or theory courses, 54% required a practical component, and 80% required a course in prevention, care and treatment of sports injuries. Fifty percent of the undergraduate coaching minor programs required 18 to 24 credit hours for completion (McMillin & Reffner, 1999).

McMillin and Reffner (1999, p. 4) report the following five observations regarding current undergraduate coaching majors (n=10):

1. Five (50%) of the programs require general principles of coaching course that includes the sport sciences.

2. Nine (90%) of the programs require technical or theory courses in specific sports.

3. Seven (70%) of the programs require a practical experience or internship.

4. All of the programs (100%) require training in the prevention, care, and treatment of injuries.

5. The range of semester hours required for a major is from 56–91 hours.
General course requirements for graduate level coaching programs (n=21) include research methods, required fieldwork or thesis, statistical analysis, sport psychology and sociology, ethical and legal issues in sport, administration, and prevention and care of injuries. Seventy percent of the technical and theory-based courses require practical experience (McMillin & Reffner, 1999).

Coaching education is also provided in non-academic settings through numerous sport organizations and publishing companies. ASEP, in conjunction with the NFICEP, is the most widely used sport education program in the United States. Ten years prior ASEP developed the NFICEP to provide a practical, convenient, and economical coaches education program for high school coaches (ASEP, 2000).

The ASEP program presents coaches with the information on how to place the physical, mental, and social development of the athlete before winning. ASEP offers workshops, support services, educational resources and testing. ASEP certification information can also be delivered via videotapes, and clinic settings requiring four to seven hours of classroom time. ASEP is currently investigating the potential role of the Internet and teleconferencing systems for content delivery (ASEP, 2000).

The NFICEP and ASEP programs are geared toward secondary school level coaches as it was originally designed to meet the professional needs of high school coaches in America (ASEP, 2000). Since implementation in 1990, ASEP is currently required by 30 state high school associations and the District of Columbia.

Seefeldt (1992) speculates that coaching certification will be a reality by 2001, and will include the minimum levels of professional competencies. Coaching certification will be conducted on a state-by-state basis but due to declining educa-
tional budgets, schools will continue to hire coaches that are not trained in the education field. Educational programs will need to be structured to accommodate various certification levels reflecting beginning and more advanced competencies. Lastly, the recruitment of the most competent coaches will be to non-school sport programs, thus raising the quality of coaches in the interscholastic programs.

**Michigan Coaching Requirements**

The requirements of a coach in the State of Michigan are minimal. The only requirement the Michigan High School Athletic Association (MHSAA) has is that a coach must be a minimum of 19 years of age. The MHSAA council encourages local school districts to consider hiring certified teachers over non-certified teachers for coaching positions (ASEP, 2000). There is no state mandate for coaching education or first aid training. The MHSAA homepage ([http://www.mhsaa.com](http://www.mhsaa.com)) recommends that all head coaches, especially non-faculty coaches, complete the Program for Athletic Coach Education (PACE) or an equivalent program.

The Program for Athletic Coaches Education (PACE) program has been in existence for over 10 years. It was officially adopted by the MHSAA in 1988 by the MHSAA and the Michigan Interscholastic Athletic Administrators Association (MIAAAA). Coursework was redefined in 1992 to conform to the recommendations of the National Association of Sport and Physical Education (NASPE), an association of the American Alliance of Health Physical Recreation and Dance (AAHPERD) (Seefeldt & Milligan, 1992).
Over the past 10 years, 2,868 coaches have received PACE training representing 372 high schools in the State of Michigan. PACE was originally designed to disperse the latest in coaching information and was to compliment other coach education programs, not be a replacement for formal coach education. The components of PACE include State athlete association guidelines for: interscholastic athletics, legal responsibilities of the interscholastic coach; emergency procedures for victims of accidents and injuries; prevention, care and rehabilitation of sports injuries; role of the coach; effective instruction and game strategy; motivating athletes; personal and social skills; positive coaching, and maintaining discipline (PACE Brochure, 2000-2001).

PACE is offered in two separate formats, (a) the evening program is offered over 2 or 4 weeks, 3 hours per night; and (b) a 2-day program with 6 contact hours per day. Certification requirements for the program are attendance of all the sessions and passage of a mastery-model examination (PACE Brochure, 2000-2001).

Optional Volleyball Coaching Education Programs

ASEP (1999) reports that 15 states, such as Michigan, encourage and support coaching education but have no specific coaching education requirements. These states have sport specific associations, such as the Michigan Interscholastic Volleyball Coaches Association (MIVCA) to assist in this process of educating, organizing and increasing membership. One approach is to align coaching education with sport specific content. Sport associations can deliver coach education programs in the United States. The United States of America Volleyball (USAV) homepage
The IMPACT program concentrates on assessing and developing an effective philosophy, developing an awareness of the opportunities and responsibilities of a coach, creating an awareness of the governing body and identifying the resources available to each and every coach (IMPACT, 2000). The United States Volleyball Association (USAV) offers delivery systems for coach education that range from a four-hour IMPACT session to a home equivalency testing for experienced and recognized coaches. More involved USAV formats include multi-day clinics, peer presentations and critical thinking seminars, to a practical experience with a mentor, culminating in a written synopsis that is to be publishable.

The CAP program is comprised of course curricula created from ethical competency based topics taught annually by diverse, experienced Cadre. CAP sites rotate across the U.S. each year. Their mission is to not only increase availability to a large number of coaches, and to enhance the quality of instruction, training and professional status of coaching at all levels of volleyball.

The National Alliance of Youth Sports homepage offers (NAYS, http://www.nays.org) delivery of coach education programs in two, three-hour clinics. The education program content includes: developing a positive coaching philosophy, implementing fun and effective practices, sport specific fundamentals, injury
prevention and treatment, drug, tobacco and alcohol prevention, coach code of ethics, child abuse prevention, and lastly nutrition, safety and first aid.

National Standards for Athletic Coaches

The best approach to developing a supportive culture toward quality coaching is for coaching education to be based on the following questions: (1) what knowledge should be taught to set coaches on the path to expertise? and (2) what is the best way to teach this knowledge to encourage its development? Researchers suggest that there is a complex, but important relationship among the coach’s believed ability to affect the learning and performance of athletes, the satisfaction of the athletes, and measures of coaching success (Feltz, Chase, Mortiz, & Sullivan, 1997). Further, it has been found that coaches taking part in formal educational programs become more convinced of their ability to positively influence their athletes and events (Malete, 1997).

The National Standard for Athletic Coach Education (NASPE) has for the past 30 years collaborated with all levels of sport agencies, from the local youth organizations to National Governing sport organizations (NASPE, 1995). The aim is to provide direction for all involved in youth sport and to insure the status and preparation of coaches. While society welcomes the positive contributions of sport, coaching education programs are challenged to do a better job of serving their institutional groups (NASPE, 1995).

The assessment for coaching education should go beyond the ‘winning and losing’ of a game and include meeting the critical needs of its constituency. Assess-
The National Standard/Domains for Coaching Education

The National Standards for Athletic Coaches (NSAC) contains 37 standards that are grouped into eight domains of knowledge and ability. Domain I Injury Prevention, Care and Management indicates that the welfare and safety of the players is the first priority of all coaches. Standards within this domain encourage sport participation to be an enjoyable and safe experience, and properly trained coaches can reduce the occurrence of injury and minimize the consequences of those that may occur. Good coaches create safe environments for practices and competitive activities, and are able to provide for appropriate emergency care when needed (NASPE, 2001).

Domain II Risk Management identifies the role coaches’ play to minimize the potential risks inherent in sport participation. Standards prepare coaches by identifying the scope of coach responsibilities, understanding how parents and players can provide informed consent, and conveying the need for appropriate insurance (NASPE, 2001).

Domain III Growth, Development and Learning contain standards that address one of the most challenging aspects for a coach, varying individual and developmental differences in young players. Players of the same chronological age can have widely different maturity levels. Knowledge about the typical course of physical,
mental, and psychosocial development is critically important to the coach’s job, and therefore, a key component in coaching education (NASPE, 2001).

Standards in Domain IV Training, Conditioning and Nutrition are at the heart of successful athletic performance and athlete safety, proper fitness and sport conditioning. Coaches need to understand the body systems and science of proper conditioning. Standards identify specific coach competencies to benefit the overall health of the individual and a coach’s proper understanding of training, conditioning (NASPE, 2001).

Domain V Social/Psychological Aspects highlights the strong tie between the social, emotional and physical factors influencing the potential positions and outcomes of sport. Coaches play an important role in creating a nurturing environment for the human spirit and the spirit of competition. Standards in Domain V identify how coaches can develop a positive confident athlete, while recognizing individual differences and needs of players. Coaching competencies in this domain help coaches develop a positive coaching philosophy by identifying and encouraging leadership behaviors that will support players and the development of life skills for personal and social responsibility (NASPE, 2001).

Domain VI Skills, Tactics and Strategies deals with competency and mastering of sport skills. Standards address knowing the tactics and strategies of a particular sport in order to teach players the basic skills and provide athletes a functional understanding of how the sport should be played. Participation with a chance for success is the most important goal of this domain (NASPE, 2001).
Standards in Domain VII Teaching and Administration are essential to the pedagogical development of the coach. Standards address a variety of instructional methods in order to convey information to players. Coaches are also presented with competencies on how to use objective and effective procedures for evaluating and selecting players and staff. The most novice of coaches must be able to demonstrate organizational and administrative skills. Competencies also address how the coach may nurture public support by conveying the positive benefits and outcome of sport participation through positive and effective communication (NASPE, 2001).

Domain VIII Professional Preparation and Development identifies standards designed to increase the awareness of the need for continued professional development of the coach and recommend resources for coaching, safety, sport science, and sport specific information (NASPE, 2001).

Coaching Education Program Effectiveness and Delivery

Coaching education must be presented in a way that allows for the development of both deep content knowledge (skills and drills) and disposition (higher order thinking, substantive conversation)(Michigan Department of Education, 1996). Brylinsky and Sullivan (2000) suggest that the critical step in planning coaching education lies in the development of assessment standards that are consistent with the vision of good curriculum and instruction that is captured in a variety of instructional formats.

Clark (2000) states that if we are to improve the coaching profession and further enhance the playing experience of young athletes, the issue of how we “coach
the coaches' is critical and must assume a more important place in our dialogue regarding sport in America. Bloom, Durand-Bush, Schinke and Salmela (1998) concur there is a necessity in providing opportunities for acquiring hands-on experience through more structured educational programs, and begin to implement changes. Bloom et al., (1998) continue by stating that the quality of learning experiences can only improve and have imminent positive repercussions on coaching systems down the road.

Malete and Feltz (1999) state that an effective, well-designed coaching education program should enhance one's coaching efficacy. In the teacher education literature, studies have found teacher efficacy to be influenced by training and experience (Ashton, 1984; Hoy & Woolfolk, 1990). Currently, standardized coaching education is not as formalized as teacher certification programs, but some coaches may prepare more for their coaching job than others by taking courses, going to workshops and clinics, reading coaching manuals, and assisting a head coach before taking their own head coaching position (Malete & Feltz, 1999).

Fuller's research (1979) included college level, assistant football coaches in four southern states. The coaches felt their weaknesses were: (1) not receiving enough exposure to coaching psychology as it pertains to counseling and motivation; (2) the coaches resented not having received sufficient instruction regarding the maintenance of positive public relations with faculty, community, and staff members; and (3) the lack of formal training for dealing with problem athletes. This research demonstrates that even top-level coaches seek information beyond the basics of sport skill development.
The results of Stewart and Sweet (1992) concur that the coaches of today need additional information in the sport science area. Half of the coaches surveyed were not trained in physical education and only 31% were currently teaching in that area; therefore, the majority of coaches needed to access coaching education to properly train young players.

Pertinent Research - Houseworth, Dobbs and Davis Prior Research on Coaching Education

There is little evidence that existing national and local coaching education programs are meeting the needs and expectations of active coaches. Research conducted by Houseworth, Dobbs and Davis, (1990), attempted to determine the preferences of coaches and athletic directors in the State of Illinois toward content and format features for coaching education programs. A survey instrument was developed to determine the coaches and athletic directors’ perceptions of coach knowledge strengths/weaknesses, as well as program topic and format feature preferences, such as topic preferences for coaching classes and educational format. Survey items also sought to measure coaches’ preferences for completing educational programs and willingness to devote time and money for their education.

Results of the Houseworth et. al, (1990) study indicated coaches were perceived to be most knowledgeable about the specifics of the sport coached and its teaching methods. Coaches were perceived less knowledgeable about sport science areas, such as psychology, physiology and injury care, and were consistent in stating the perceived need for more information on these topics. Education on such topics as
preventing, reducing and treating injuries were perceived as a highly needed area, while administration was rated relatively low. Based on the good alignment between perceived weakness and needed topics, it was surprising that coaches did not prefer to attend topics on areas of greatest need, but rather on topics they were already knowledgeable on.

Coaches in the Houseworth et. al., (1990) reported a preference for clinics and in-service sessions over that of formal graduate programs to obtain improved coaching skills. Willingness to seek continuing education increased if it would have direct influence on being a better coach or increase in salary. There was a strong consensus (100%) that all coaches should be required to seek minimal training in the specific sport coached, with additional support (81%) in the sport science area, both leading to some form of certification (74.8%). Coaches also reported a willingness to spend $15-20 to attend an educational program if it required only 20-25 hours to complete. The overall support for coach education was balanced by concerns over administration, and personal investment of a required coaching education program, and possible exclusion of current experienced coaches. Surprisingly, there was a general response that certification might inhibit or discourage new people into the field.

Conclusions from Houseworth et al., (1990) study also implied that school districts needed to offer incentives for coaching education programs in spite of the reported altruistic desire to be a better coach. Houseworth et al., (1990) research recommends that coach education programs be offered at the graduate level for credit, that certification programs should be part of a larger system and that rewards for completion of such a program could result in an increase in salary or future opportu-
nities.

Houseworth et al., (1990) results indicate that coaching education programs are a valuable tool. The results indicate a concern for the lack of preparation of coaches, and school districts need to have strict policies for coach proficiency. The research concluded that national standards are needed to support the state efforts at coach certification (Houseworth et al., 1990).

Statement of the Problem

The purpose of this project was to identify the level of awareness and perceived usefulness of the Program for Athletic Coaches Education (PACE) by the Michigan Interscholastic Volleyball Coaches Association (MIVCA) coaches. The study also examined the perceived need of specific content areas outlined in the National Coaching Education Standards addressed by PACE to improve coaching performance. This research addressed the following questions: (1) To what extent are the MIVCA coaches and member institutions aware of and engaged in PACE? (2) What do the MIVCA coaches believe to be the relative importance of coaching education content areas? (3) What do the coaches believe to be the important domain specific standards to improve their coaching? and (4) What do the MIVCA coaches believe their personal investment should be in a coaching education program.
CHAPTER II

METHOD AND PROCEDURES

Subjects

The subjects for this study were solicited from coaches attending the annual Michigan Interscholastic Volleyball Coaches Association (MIVCA) clinic, November 10-11, 2000. The participants registered, entered the facility at random and received their survey. Once coaches completed registration, they volunteered to participate in the study and received a survey material. Acceptance of participation selection was indicated through a willingness to complete and return the research survey, as in compliance with HSIRB protocol (Appendix D).

Table 1 represents the descriptive statistics for the sample demographics from Section I of the survey instrument. Items include PACE certification status, faculty status and other identified demographic categories of gender, geographic location, years coached and age of current Michigan interscholastic volleyball coaches.

Table 1

Sample Demographics (N=296)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>School Classification</td>
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21
Table 1--Continued

Sample Demographics (N=296)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
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</thead>
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<tr>
<td>School Classification</td>
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<td>B</td>
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<td>C</td>
<td>79</td>
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</tr>
<tr>
<td>D</td>
<td>37</td>
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</tr>
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</tr>
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<td>Club</td>
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<td>.3</td>
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<tr>
<td>Faculty</td>
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<td>Male</td>
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<td>Female</td>
<td>220</td>
<td>74.3</td>
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<tr>
<td>PACE Certified I&amp;II</td>
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<tr>
<td>Age (yr)</td>
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</tr>
<tr>
<td>Years Coached</td>
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<td>7.19</td>
</tr>
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</table>

Note: The classification of school population according to the MHSAA (2000-2001): Class A 992+ students, Class B 495-991 students, Class C 494-252 students and Class D 241 and below.
Development of The Survey Instrument

A survey questionnaire developed by Houseworth et al., (1990) was used as the basis for developing the current survey instrument. The present survey instrument was formed to assess the coaches’ awareness and engagement in PACE, perception of importance of PACE content areas identified by specific coaching standards, the need for coaching education requirements and a willingness for personal investment in coaching education.

Survey Development and Pilot Study

The survey used in this study was developed by the author in an attempt to incorporate the Houseworth et. Al., content and format. The author included the NASPE standards for ranking purposes and to determine the relevance to coaching education programs available in Michigan.

A pilot study was conducted to validate the developed survey questionnaire. It was pilot-tested for format and readability among a professional representation that included 12 local high schools and travel team volleyball coaches, and a general coaching education class at a local community college. In addition, the survey was sent to the MIVCA board members, and other related experts in the field to determine content validity and usefulness of items. The survey items were revised to more operationally define the National Standards for Athletic Coaches (NSAC), and to further include information that determines how many of the MIVCA coaching population is currently engaged in PACE.
Two sections of the survey used in this study reflect the sport science content areas identified in the eight domains of the NSAC and program delivery considerations offered by PACE. The final survey instrument included four sections.

Specific items in Section I of the survey questionnaire (see Appendix A) included participant demographics (items 1–4) program delivery and awareness of PACE certification(s) (items 5-7), type of program delivery utilized if certified (item 8), support of the school administration toward PACE (items 9-11), and interest in PACE certification (item 12). The coaches responded by checking appropriate categories.

Section II of the survey questionnaire required the coaches to rank order the domain specific content areas of the National Standards for Athletic Coaches, (NSAC). A rank of one being the most important, through a rank of eight, being the least important. Content areas include teaching and administration, social/psychological aspects, risk management, injury prevention, care and maintenance, growth, development and learning, tactics and strategies, and professional preparation.

Section III of the survey questionnaire evaluated what specific coaching standard is most to least important, with respect to improving coaching within each of the specific content domains. Coaches were asked to rank individual competencies that would be presented in a coaching education program for that area of knowledge. There are eight statements in section III to be ranked. One of which has eight individual competencies, one has seven, two have five and the remaining four statements have four competencies each.
In Section IV coaches indicated, what type of minimum training they should be required to have prior to coaching a team (item 1), how much they would be willing to spend (item 2), and the number of hours they would be willing to dedicate to coaching education (item 3). The coaches were asked to check the appropriate category personally. Finally, the participants were given an opportunity to express personal or professional feelings regarding coach certification in Michigan through a written open-ended question (item 4).

Survey Procedures

Surveys were administered at the MIVCA Coaching Clinic in Battle Creek, Michigan, November 10 and 11, 2000. The survey was included in the participant registration package (Appendix A). This project was approved under the expedited category of review by the Human Subjects Institutional Review Board of Western Michigan University (HSIRB Project Number 00-09-11). The Michigan Interscholastic Volleyball Coaches Association (MIVCA) Board members granted permission to solicit participants as part of the conference registration (Appendix B). Included in the registration material was a detailed letter explaining the proposed research and that participation was voluntary (Appendix C).

The participants were asked to respond and return the questionnaire before the conclusion of the clinic. The information gathered was kept anonymous with only aggregate/group data used in the report or analysis. To encourage participation periodic announcements were read over the loud speaker between conference sessions to
ask coaches to complete, seal and return the survey. Incentive for survey completion included 1999 CHAMPS T-shirts that were drawn each day.

Data

Five hundred participants at the Michigan High School Coaches clinic were asked to complete a coaching needs survey. Two hundred & ninety six (n=296), a return rate of 59.2%, completed all or part of the survey. Descriptive statistics indicated an acceptable representation of MIVCA coaches in the sample reflecting proportionate school size, faculty, non-faculty, and gender (see Table 1).

Once the questionnaires were returned, data were entered into a SPSS data file. The data was treated using a chi-square, a non-parametric statistic to determine if a relationship existed between faculty and non-faculty coaches. The results indicate that no discernable differences were found between the faculty and non-faculty coaches; therefore, the data groups were pooled as one.
CHAPTER III

RESULTS

Survey Section I

Sample Demographics

Section I of the survey included (items #1-12) descriptive information of the participants. As reflected in Table 1, the sample reflected that MIVCA coaches are typically female (74.3%) with an average age of 35.1+-10.41 years. Coaching experience averaged a 7.71+-7.19 years. The sample reflected a slightly lower number of coaches held teaching positions (46.4%), as non-faculty positions (53.6%) and the largest school classification represented was Class B (n=105).

Awareness and Engagement in PACE

Only a small percentage of the participants (21.7%) reported having PACE certification, but many (65.7%) were interested in becoming PACE certified. MIVCA coaches reported overwhelming support for coaching education as 79.2% had positive endorsement from their administration. Seventy four percent of the coaches surveyed reported that they have monies allocated in their budget for coaching education, such as the MIVCA clinic.
Relative Importance of NSAC Content

Section II includes the eight domains from the National Coaching Standards. The coaches (n=296) were asked to rank the domains in order of most to least important with respect to the components in coaching education. Table 2 reflects the results indicating the frequency of item ranked from most to least important. The percentages reflect the responses that the coaches considered were in the top three choices of importance.

The top three ranked content area for the NSAC were the (1) administration domain (55.4%, n=159), followed by (2) social/psychological skills (52.4%, n=151); and (3) tactics and strategies (50.4%, n=145). These tendencies are in line with prior research indicating that coaches are more concerned with the basic teaching of skills, motivational tools, and daily maintenance of their program than other specified areas. It would appear that the coaches closely link the importance of the age appropriate tactics for individual players and team strategies with the development of basic skill and ways to motivate their players.

NSAC content domains that deal with sport science were considered somewhat important in ranking. The three domains: growth, learning and development (37.2%, n=107), injury prevention, care and management (33.5%, n=96), and, training, conditioning and nutrition (30.2%, n=87) were ranked 4th, 5th and 6th by the coaches. This contradicts data from Houseworth et. al., (1990) where coaches believed hearing more about these topics was a highly needed area.
The content domains that deal with professional and legal responsibilities were the two lowest ranked domains in Section II of the Survey. Professional preparation and development (30.0%, n=86) was still considered somewhat important, however risk management (11.1%, n=32) was clearly viewed as least important of all eight domains. The perceived importance of having coach education programs is high, yet this coaching sample ranked professional development seventh. Lastly, the risk management domain verifies that coaches feel the safety of facilities, equipment, etc., is not a top priority.

Table 2

National Standards—Rank Order of Importance (n=296)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Teaching &amp; Administration</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Social/ Psychological</td>
<td>159</td>
<td>55.4</td>
</tr>
<tr>
<td>2</td>
<td>Tactics &amp; Strategies</td>
<td>151</td>
<td>52.4</td>
</tr>
<tr>
<td>3</td>
<td>Growth, Development &amp; Learning</td>
<td>145</td>
<td>50.4</td>
</tr>
<tr>
<td>4</td>
<td>Injury Prevention, Care &amp; Management</td>
<td>107</td>
<td>37.2</td>
</tr>
<tr>
<td>5</td>
<td>Training, Conditioning &amp; Nutrition</td>
<td>96</td>
<td>33.5</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>87</td>
<td>30.2</td>
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Table 2—Continued

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<th>National Standards—Rank Order of Importance (n=296)</th>
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<tbody>
<tr>
<td>Rank</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Professional Preparation &amp; Development</td>
</tr>
<tr>
<td>Risk Management</td>
</tr>
</tbody>
</table>

Note: Percentage reflects responses that were considered in top three choices of importance.

Survey Section III

Perceived Need for Specific Coaching Competencies

Section III of the survey identified the rank importance of each specific coaching standard within each Domain content. Appendix F, Table 3, reflects the perceived importance of specific content items. Items were ranked by perceived level of importance. For example, if five or more items were ranked the terminology used was most important, important, somewhat important, less important and least important.

Teaching and Administration

Five items total were ranked for this domain. Coaches determined that various instructional methods (85.6%) was “most important,” while technical sport specific skills (76.7%) was perceived as “important” items. Objective and effective pro-
ecedures for evaluating players and staff at (54.9%) and the key elements of sport principals (50.1%), such as basic skills or strategies, were “somewhat less important.” The selection of personnel/support staff (33.0%) was ranked “least important.”

Social/Psychological Aspects

Eight items total were to be ranked in this domain. Coaches ranked conducting practices and competitions to enhance the social/emotional growth of the athletes (59%) as the most important item. Motivational skills (55.7%) that recognize the importance of self-esteem, a player’s development and sport success was deemed “important.” The coaches considered experiences that develop desirable behaviors and model good sport behavior (50.5%) and utilizing the basic principles of goal setting to motivate athletes toward immediate and long-range goals (47.8%) as “somewhat important.” Competencies that were considered “less important” were development of a philosophy that acknowledges the role of athletics in personal development (34.3%), identification of values that are to be developed in sport participation (21.1), and the treatment of each athlete as an individual (20.3%). Ethical conduct (13.7%) was “least important” in the social/psychological domain.

Tactics and Strategies

Four items total were to be ranked in this domain. Identifying and applying age appropriate strategies (72.7%) ranked “most important.” The data indicates that the evaluation of practice sessions, with regard to appropriate program goals (71.6%) was “important.” Of “less importance” is the organization and implementation of
materials for scouting, planning of practice sessions and game analysis (36.6%). En­
forcing the rules and regulations of a governing body (19.0%) ranked “least impor-
tant.”

Growth, Development and Learning

Six items were to be ranked in this domain. The coaches’ ranked providing
experiences that are growth and developmentally age appropriate in practice and
game situations as the “most important” item (75.6%). The results indicate that in­
struction to develop sport specific skills (68.5%) and the influence of physical and
mental development (67.2%) are critically “important” on learning and motor skills,
while age appropriate activities (58.8%) are “somewhat important.” The “less impor-
tant” competency of social and emotional development (44.7%) is closely tied to the
“least important” item, the analysis of human performance (43.6%).

Injury Prevention, Care and Management

Seven items in total were to be ranked in this domain. Injury prevention, care
and management results show that the welfare, safety and prevention of injuries for
players were the “most important” item (64.2%). Prevention, recognition and evalua-
tion of injuries and recovery/rehabilitation (57.3%) are “important,” increased knowl-
dge of conditioning and risk of injury on the circulatory and respiratory systems
(49.0%) and the provision of injury rehabilitation education (44.3%) are “somewhat
important.” Planning, coordinating and implementing procedures for appropriate
emergency care (36.3%) and of “less importance” is protective equipment (26.2%) its
proper fit, equipment and facility standards. The coordination of roles between the coach, athletic trainer and physician (23.8%) is “least important” item.

Training, Conditioning and Nutrition

Four is the number of items to be ranked in this domain. The results indicate designing training programs to be the “most important” item (81.0%). The basic knowledge of physiological systems and their responses to training was “important” (60.2%), while proper nutrition and the effects on health and performance (46.0%) was “somewhat important.” Coaches ranked the promotion of chemical health (13.2%), in a competitive environment, as the “least important” item.

Professional Preparation and Development

Five items were to be ranked in this domain. The administration of sports programs and event management (76.1%) is “most important.” The participation in public relations activities (73.2%) and increased practical experience prior to coaching are “important” (68.9%). Of “some importance” is the working knowledge of budget issues (44.6%), while the “least important” is facility maintenance (37.4%).

Risk Management

The risk management domain sees enhancing player safety as the “most important” item (80.7%). “Important” competencies in this domain, deal with informing parents and players of the inherent risks (58.7%) in sport. “Somewhat important” is understanding the significance of documentation and planning with respect to the le-
gal scope of responsibilities (47.3%) that go with coaching. Acquiring proper medical insurance (14.5%) for participation in sport was the “least important” item to the MIVCA coaches.

Coach education programs are to be developed, based on the coaches’ perception of needed, or important competencies, the following is strongly encouraged. Emphasize knowledge of various pedagogical skills such as exposure to coaching methods, various training programs/skill development. How to motivate player performance in practice and competition is important, as is age appropriate strategies for athlete development. Coaches are also interested in goal setting for athlete and program development. Injury prevention skills are also important.

Coaches do not think they need training in the areas of budget, analyzing human performance, personnel selection or coordination of roles between the coach and support staff (athletic trainer and doctor). Other administrative duties, such as compliance with governing body rules and knowledge of medical insurance were also seen as unnecessary. Skills on how to apply ethical conduct or promote chemical health were perceived least important.

Survey Section IV

Importance of Practical Experience and Personal Investment in Training

Section IV identified factors that influence the delivery of coaching education. Such items included required minimal training prior to supervising a team, the amount of money spent on coaching education, the amount of time put into a coach-
ing education program, personal, and or professional feelings regarding specific certification for coaches in the State of Michigan. Items 1-4 in Section IV, Table 4, of the survey is included in this category.

The data shows that coaches believed training for coaches should be required (75.4%) prior to supervising a team. The data indicates that 67.4% of the coaches will spend between 10 and 20 hours toward professional development and that coaches will spend greater than 50 dollars (42.7%) on that sport specific development.

Forty four percent (n=132) of the total number of coaches responded to the written question regarding specific certification for high school coaches in Michigan. Over one third (37.8%, n=50) indicated that training for coaches, of some sort, is necessary. Such comments were recorded as it is “long over due,” “varsity coaches need to lead the way to certification,” “different information for non-teacher coaches is necessary” and that “any requirement would be an improvement.” A small number of coaches (n=18) remarked that “other” content areas be included in the programs, such as, child-development, legal liability, age appropriate activities, injury prevention, First Aid/CPR and social/psychological/emotional issues related to the adolescent athlete.

An equally low number of responses (n=18) took the opposite stance stating that coach certification/PACE was “unrealistic.” Rationale given described the lack of “time and money” would not only hurt sport, but most importantly, “girls sports” would suffer. Others indicated that one should “not have to pay money to be certified,” and many felt that there “would be a loss of many quality coaches” if certifica-
tion were required, and it may “deter coaches from entering the field” if certification were the case.

Table 3
The Michigan Interscholastic Volleyball Coaches Implications for Personal Investment

<table>
<thead>
<tr>
<th>Variable</th>
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<td>16-20</td>
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<td>21-25</td>
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<tr>
<td>40+</td>
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<td>Money Spent</td>
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</tr>
<tr>
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<td>14.0</td>
</tr>
<tr>
<td>$50+</td>
<td>119</td>
<td>42.7</td>
</tr>
</tbody>
</table>

Note: These numbers reflect the amount of money and time coaches were willing to spend toward completing a coaching education program.
Question 1: To what extent are the MIVCA Coaches and member institutions aware of and engaged in PACE?

Results of Section I indicate that most of the MIVCA coaches are not PACE certified. Yet the results, in an almost contradictory manor, show the coaches would be interested in becoming PACE certified. This is in agreement with the original findings by Houseworth et al., (1990) that coaching education would be welcomed and valuable to high school coaches. The other results show that the MIVCA coaches were mostly female, that non-faculty coaches were in the majority, and the coaches attending were mostly from schools with a population between 495-991 students were well represented.

Question 2: What do the MIVCA coaches believe to be the relative importance of coaching education content areas?

Results of Section II of the survey asked the coaches to rank the importance of the eight domains in the National Standards for Athletic Coaches. The results indicate the coaches ranked the teaching and administration domain as the most important, while an overwhelming majority declared the risk management domain as the least important item.
The literature reveals that there is increased awareness to the inherent risks in sport participation, and today's coaches are expected to be risk management experts, hold advanced degrees in coaching technology and maintain emergency medical technician status (Lincoln, 1992). Coaches are in a pivotal position to reduce risk and maintain safety, yet this sample group indicates it the least important domain. Mac (1998) suggests that one remedy is to have coaches more involved in the educational programs.

Question 3: What do the coaches believe to be the important domain specific standards to improve their coaching?

Results of Section III of the survey required the coach to determine the most important competency within each individual domain. The top group of competencies included athlete centered concerns while somewhat important items dealt with program management, strategies and skill instruction. The less important competencies were motivational skills and injury prevention.

The findings in this study are similar to the findings of Houseworth et al. (1990). They report that the coaches would most like to attend clinics that were sport specific and related to teaching skills, such as proper mechanics and tactics/strategies. The Houseworth et al. research (1990) verifies that items coaches were least knowledgeable about were ranked low in importance. For example, administrative duties, and budget, were ranked low.

In summary, the data indicates that player/game concerns are most important. For example, the coaching/teaching of skills is more important than administrative
duties, that the control of practice, games and players is more important than sports-
manship, ethics, values and personal development. Age appropriate evaluation and
goals are more important than rules, scouting and game analysis. Appropriate experi-
ences with respect to practice/game and skills are more important than social emo-
tional development and analysis of performance. Prevention, care and evaluation of
injury are more important than the rehabilitation, emergency medical care and proper
equipment. Conditioning/physiological systems are more important than nutrition
and sound chemical health. Event management, public relations and practical experi-
ence are more important than facility and budget issues. Player safety is more impor-
tant than informing parents’ or legal responsibilities.

Question 4: What do the MIVCA coaches believe their personal investment should be in a coaching education program?

The last section asked the coaches to indicate if training prior to taking a
coaching position was training necessary. The data indicates that an overwhelming
majority believes it necessary to have training before taking a coaching job. This is
in line with the Houseworth et al. (1990) research, where 100% of the coaches and
athletic directors surveyed indicate that “yes” coaches should receive training in the
specifics of the sport to be coached.

The question relating to time commitment received responses ranging from
10-15 hours 40 plus hours for a coach education program. This indicates that there is
a difference in opinions with respect to what is acceptable training for a coach. This
could be an item to study in the future. Houseworth (1990) suggests that perhaps
coaches perceive coaching education program as something distinctly different and separate from contemporary coaching clinics.

The data continues to indicate that coaches are willing to spend more than $50 dollars per year on their professional development. The coaches in the study were at the clinic and it is clear they are willing to pay to advance their personal development in coaching. Since the question was not asked in the survey, it might be of interest in the future to ask how much of their “own” money coaches are willing to spend towards improved coaching.

In general, the concept of coach certification was viewed positively. The responding coaches felt that although it was long overdue and that some training was better than none, it would be impractical to require certification due to: current lack of funding, mandatory certification is unrealistic, due the fact that it is already difficult to find and hire people to coach girls volleyball, let alone qualified personnel.

Conclusion

The results of this study allow for speculation concerning the questions of engagement, perceived need and support of MIVCA coaches toward coach education as offered by PACE, while the coaches are supportive of PACE, many have not engaged in seeking certification.

Similar to previous studies, coach training should focus on the day-to-day tasks of teaching sports skills and tactics, and how to improve the psychological/social factors that enhance performance. The MIVCA coaches were least interested in areas that dealt with any type of administrative duties, analysis of perform-
ance, the enforcement of rules or ethical conduct and lastly promoting positive chemical health. Finally, the belief is strong that coach training is important, and should even be required. The coaches are willing to commit adequate time and money to receive quality training. However, inferred comments reflect a concern regarding mandatory coach education requirements that could deter new coaches from entering the field and jeopardize the status of existing coaches.

Suggestions for Future Research

To further assess the impact of PACE in the State of Michigan, follow up studies should be conducted to determine if reported support of Athletic Directors for PACE is being followed by hiring coaches with PACE certification. This may provide more clarity on the discrepancy between support of PACE and low engagement of the MIVCA coaches.

Such information could be used to determine if non-faculty coaches are required to complete their coaching education either prior to the first day of the season, or within one year of being hired. A duplication of the current study could be used to determine the rate of PACE certification and coach education among the other sanctioned high school sports within the MHSAA. Information may further clarify if the noted discrepancy of support and engagement is unique to the sport of volleyball or program delivery parameters.

The implementation of the current PACE test could be delivered in conjunction with the current survey. This could assist in determining what the coaches cur-
rently know compared to what coaches’ think they need, or should have, in order to coach.
Appendix A

The Michigan Interscholastic Volleyball Coaches Association (MIVCA) Program for Athletic Coaches Education (PACE) Survey
The Michigan Interscholastic Volleyball Coaches Association (MIVCA) Program for Athletic Coaches Education (PACE) Survey

SECTION I

Coaches, please provide the following information.

1. Total number of years coached ____

2. Check one or any of the following that apply to you. You may currently be involved with one or more of the categories.
   ____ Head Coach
   ____ Assistant Coach

Athletes that you coach: ____ Females  ____ Males  ____ Both

Do You Coach at:  ____ Class A  ____ Class B  ____ Class C  ____ Class D
                   ____ MiddleSchool/JuniorHigh
Other: ___________________________

Are you currently:  ____ Faculty
                   ____ Non-faculty in the district that you coach in.

Are you a MIVCA member? (Circle one)  YES    NO

3. Gender:  ____ Female  ____ Male

4. Present Age:  ____

5. Do you know what PACE is?  ____ YES  ____ NO

6. Do you have PACE I certification?  ____ YES  ____ NO

7. Do you have PACE II certification?  ____ YES  ____ NO

8. Did you acquire your PACE certification through:
   a. college coursework  ____
   b. 6 hour workshop  ____
   c. weekend intensive  ____
   d. other: ___________________________

9. Does your Athletic Director/Principal encourage coaching education?  ____ YES  ____ NO

10. Does your Athletic Director/Program budget for your participation in coaching education programs?  ____ YES  ____ NO

11. Did you need PACE certification to be hired for your current coaching position?  ____ YES  ____ NO

12. Are you interested in being PACE certified?  ____ YES  ____ NO

13. What district are you currently coaching in? ___________________________
SECTION II

Please rank the following eight domains in an order that reflects the most important components in coaching education: (1 being the most important to 8 being the least important)

- Injury prevention, care and management – athlete safety
- Risk management – legal responsibilities of the coach
- Growth, development and learning – age appropriate conditioning
- Physical training, sport conditioning and nutrition – sport science
- Social/psychological aspects of coaching – motivation/sportsmanship
- Sport specific skills, competitive tactics and strategies
- Coaching methods – planning, instruction and supervision of personnel
- Professional preparation and development – practical experience

SECTION III

Rank the following statements in order of importance:

1. To improve my coaching I need to learn more about: (1 being the most important to 7 being the least important)

   a) prevention of injuries and recognition of safe playing conditions
   b) protective equipment, its proper fit, equipment and facility standards
   c) conditioning and risk of injury on the circulatory and respiratory systems
   d) planning, coordinating and implementing procedures for appropriate emergency care
   e) prevention, recognition, evaluation of injuries and recovery/rehabilitation
   f) coordinate roles and actions of the coach, a NATA certified trainer and a physician
   g) provide education about injury prevention, injury reporting and sources of medical care

2. To improve my coaching I need to learn more about: (1 being the most important to 4 being the least important)

   a) understanding the scope of legal responsibilities that comes with coaching
   b) the inherent risks of my sport, so participation with an informed consent can be made
   c) the need and availability of appropriate medical insurance
   d) continuing education and other information to enhance safety and success of the athlete
3. To improve my coaching I need to learn more about: (1 being the most important and 5 being the least important)

a) physical and mental development and how these can influence learning and motor skills
b) social and emotional development
c) analyzing human performance in terms of developmental information and individual body structure
d) provide instruction to develop sport specific skills
e) providing experiences that are growth and developmentally age appropriate in practice and game situations

4. To improve my coaching I need to learn more about: (1 being the most important and 4 being the least important)

a) basic knowledge of physiological systems and their responses to training
b) designing programs that incorporate proper mechanics of movement
c) proper nutrition and the effects on health and performance
d) the use and abuse of drugs to promote sound chemical health

5. To improve my coaching I need to learn more about: (1 being the most important and 8 being the least important)

a) developing a philosophy that acknowledges the role of athletics in developing the complete person
b) identifying those values that are to be developed from participation in sport
c) the identification and application of ethical conduct in sport
d) motivational skills and providing positive, appropriate feedback
e) how to conduct practices and competitions to enhance the social and emotional growth of the athletes
f) the basic principles of goal setting to motivate athletes toward immediate and long range goals
g) treating each athlete as an individual while recognizing the (gender, race, socio-economic)
h) how to structure experiences to develop desirable behaviors (self-discipline, support of teammates, following directions)

6. To improve my coaching I need to learn more about: (1 being the most important and 4 being the least important)

a) specific competitive tactics and strategies appropriate for the age and skill level
b) organizing and implementing materials for scouting, planning practices, analysis of games
c) understanding and enforcing the rules and regulations of appropriate bodies that govern sport and education
d) evaluating practice sessions with regard to program goals that are appropriate
7. To improve my coaching I need to learn more about: (1 being the most important and 5 being the least important)

   a) the key elements of sport principles
   b) technical skills
   c) various teaching methods
   d) effective procedures for the evaluation
   e) selection of personnel involved in the program

8. To improve my coaching I need to learn more about: (1 being the most important and 5 being the least important)

   a) administration of sports programs and event management
   b) budget
   c) facility maintenance
   d) participation in public relations activities
   e) how to acquire more practical experience prior to coaching

Section IV

1. Should coaches be required to complete some minimal training in the sport science prior to coaching/supervising a team. (circle one)

   YES/NO

2. What would you be willing to spend to complete a coaching education program? (Check One)

   __ $10-15   __ $20-25   __ $30-35   __ $40-45   __ $50 or more

3. I would be willing to spend ____ hours to complete a coaching education program. (check one)

   __ 10-15   __ 16-20   __ 21-25   __ 26-30   __ 31-35   __ 36-40

   ____ more than 40

4. Explain your own personal, or professional, feelings regarding specific certification for coaches in the State of Michigan.
Appendix B

Permission Letters from the Michigan High School Athletic Association (MHSAA) and the Michigan Interscholastic Volleyball Coaches Association (MIVCA)
August 8, 2000

To Whom It May Concern:

I hereby give my approval for Heather Sawyer to conduct the research project described at the MIVCA clinic. The Impact of the Program for Athletic Coaches Education (PACE) Certification on the Michigan High School Athletic Association (MHSAA) and Specifically the Michigan Interscholastic Volleyball Coaches Association (MIVCA).

I have read the attached description of the project and understand it as described.

__________________________________  MIVCA Board Member

___________  Date
August 8, 2000

To Whom It May Concern:

I hereby give my approval for Heather Sawyer to conduct the research project described, The Impact of the Program for Athletic Coaches Education (PACE) Certification on the Michigan High School Athletic Association (MHSAA) and Specifically the Michigan Interscholastic Volleyball Coaches Association (MIVCA).

I have read the attached description of the project and understand it as described.

_________________________________ MHSAA _________ Director

__________ Date
Appendix C

Board Member and Participant Letter
Dear MIVCA Board Members,

I am conducting a research project entitled "The Impact of PACE Certification on the Michigan High School Athletic Association (MHSAA) and Specifically the Michigan Interscholastic Volleyball Coaches Association (MIVCA)."

As a fellow volleyball coach, I realize that we are limited in the number of objective assessment tools when evaluating coaching education programs. With your help and permission I would like to utilize the MIVCA clinic in November to collect data from the participating coaches. It is my intent to further the ability of the interscholastic coaches in the State of Michigan to be one step closer to knowing how to access the information they need to train their athletes more safely and efficiently.

This survey will take approximately twenty (20) minutes to complete. In order to preserve the validity of this study. All information gathered will be completely anonymous. If a coach decides not to participate, they can simply discard the survey. Returning the survey means that the coach has given their consent with the answers they supplied. There will be three (3) well labeled boxes throughout the facilities for easy and simple return (Full Blast, the hotel ballroom and the Kellogg Arena).

I am hoping to publish this project and make available all results to the MHSAA and MIVCA. If you have any questions regarding this study, please feel free to contact Heather Sawyer, Graduate Assistant at (616) 387-2689, Dr. Jody Brylinsky at (616) 387-2710, the Human Subjects Institutional Review Board at WMU (616) 387-8239, or the Vice President for Research at (616) 387-8398.

Thank you very much for your time and thoughtful consideration. I will see all of you in November at MIVCA!

Sincerely,

Heather Sawyer
Graduate Assistant
HPER Department
Western Michigan University
Dear MIVCA Volleyball Coach,

You are invited to participate in a research project entitled "The Impact of PACE Certification on the Michigan High School Athletic Association (MHSAA) and Specifically the Michigan Interscholastic Volleyball Coaches Association (MIVCA). Heather Sawyer, Graduate Assistant from Western Michigan University, Department of Health, Physical Education and Recreation, is conducting this project as a part of the university thesis requirement.

As a fellow volleyball coach, I realize that we are limited in objective assessment tools when evaluating coaching education programs. Many times we are left on our own to seek out information that will aid in our advancement as well rounded, educated coaches. So how does a Michigan interscholastic volleyball coach find the path toward this promised land? With your help by participating in this research project interscholastic volleyball coaches in the State of Michigan can be one step closer to knowing how to access the information they need to train their athletes more safely and efficiently.

This survey will take approximately 20 minutes to complete. In order to preserve the validity of this study, your answers will be completely anonymous, so do not write your name anywhere on the form. You may choose not to answer any question by leaving it blank. If you choose to not participate in this survey, you may simply discard it. Returning the survey indicates your consent for use of the answers you supply. If you choose to participate, return the survey in the provided boxes throughout the conference facilities (Full Blast, the hotel ballroom and the Kellogg Arena). There will be prizes drawn daily, MHSAA 1999 CHAMPS t-shirts. All coaches participating in the MIVCA clinic will be eligible for the daily drawing(s).

I am hoping to publish this project and all results will be made available to the MHSAA and MIVCA. If you have any questions regarding this study, please feel free to contact Heather Sawyer, Graduate Assistant at (616) 387-2689, Dr. Jody Brylinsky at (616) 387-2710, the Human Subjects Institutional Review Board at WMU (616) 387-8293, or the Vice President for Research at (616) 387-8298.

Thank you very much for your time and thoughtful consideration. Good luck with your teams and athletes in the coming volleyball season!

Sincerely,

Heather Sawyer
Graduate Assistant
HPER Department
Western Michigan University
Appendix D

Protocol Clearance From the Human Subjects Institutional Review Board
Date: 20 October 2000

To: Jody Brylinsky, Principal Investigator
    Heather Sawyer, Student Investigator for thesis

From: Sylvia Culp, Chair

Re: HSIRB Project Number: 00-09-11

This letter will serve as confirmation that your research project entitled "The Impact of Pace Certification in the MHSAA and Specifically the MIVCA Coaches" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 20 October 2001
Appendix E

PACE Brochure: 2000-2001
PROGRAM FOR ATHLETIC COACHES' EDUCATION

2000-2001 SCHEDULE

Presented by
Michigan High School Athletic Association
MSU — Youth Sports Institute
Michigan Interscholastic Athletic Administrators Association

Program of Athletic Coaches’ Education

COURSE OBJECTIVES:

Pace is a program designed and endorsed by the Michigan High School Athletic Association, Michigan Interscholastic Athletic Administrator Association and the Youth Sports Institute of Michigan State University. The twelve-hour course will provide interscholastic coaches with the latest information pertaining to their day-to-day coaching responsibilities.

PACE is offered in two separate formats. Coaches have an opportunity to enroll in the traditional evening programs which will be offered over two or four weeks, three hours per night. Attendance at the evening programs and passage of a mastery-model open-book examination will complete PACE requirements and result in a certificate of completion.

PACE is also offered as a two-level program over two separate days. Level I and Level II, six-hour programs will be presented at various locations throughout the state. Completion of both Levels and passage of the examination will allow coaches to receive the certificate of completion.

Attendees will receive a reference manual of supplemental reading to accompany the information presented during class sessions.

COURSE CONTENT — 4-Week Program

TOPICS

Level I — Session A (3 hours)
Guidelines for Interscholastic Athletics from the Michigan High School Athletic Association
Legal Responsibilities of the Interscholastic Coach
Insurance for Coaches and Athletes

Level I — Session B (3 hours)
Emergency Procedures for Victims of Accidents and Injuries
Essential Medical Records for Interscholastic Athletes
Prevention, Care and Rehabilitation of Sports Injuries

Level II — Session C (3 hours)
Role of the Coach in Interscholastic Sports
Planning, Conducting and Evaluating Effective Instruction
Physical Conditioning and Contraindicated Activities

Level II — Session D (3 hours)
Motivating Athletes
Effective Communication, Personal and Social Skills
Positive Coaching
Maintaining Discipline

TWO-LEVEL FORMAT

Level I (Sessions A & B)
Guidelines for Interscholastic Coaches from the Michigan High School Athletic Association
Legal Responsibilities of the Interscholastic Coach
Insurance for Coaches and Athletes
Emergency Procedures
Essential Medical Records
Prevention, Care and Rehabilitation of Sports Injuries

Level II (Sessions C & D)
Role of the Coach in Interscholastic Sports
Planning, Conducting and Evaluating Effective Instruction
Physical Conditioning, Personal and Social Skills
Positive Coaching, Motivation
Effective Communication, Maintaining Discipline
ENDORSEMENTS AND QUOTES

Michigan Association of School Boards urges all local school boards to work as rapidly as possible to:

• Provide in-service training for all coaches including training in first aid, proper athletic conditioning, and recognition of athletic injuries.
• Make coaches aware of pertinent school policies, rules and regulations and require compliance.
• Require supervision and evaluation of coaches.
• Employ qualified persons as coaches of interscholastic teams.

Robert M. Malina, Director, Institute for the Study of Youth Sports, MSU:

"The current PACE program meets or exceeds the competencies required of coaches in 34 of the 37 standards at levels I, 2 and 3."

And past-participants say:

"PACE was Great! I have been coaching for 22 years and learned a lot. It was nice to hear new ideas and procedures, plus the fact that I was doing things right."

"I really enjoyed PACE! I learned a lot of valuable information. Thank you so much for making it interesting, as well as enjoyable! I will use all of the information as I pursue coaching."

LOCATIONS & DATES

LEVEL I
(One-day Seminars Unless Otherwise Noted) 9 a.m.-4 p.m.

1. Farmington Training Center Saturday, Aug. 5
2. Hartford High School Saturday, Aug. 12
3. Gladwin High School Saturday, Aug. 19
4. Central Lake High School Saturday, Aug. 19
5. Holland-West Ottawa High School Monday & Wednesday, Sept. 11, 13 6:30-9:30 p.m.
6. Milington High School Monday & Wednesday, Sept. 18, 20 6:30-9:30 p.m.
7. BCAM-Lansing Holiday Inn South Friday, Oct. 6
8. Saginaw Heritage High School Monday & Wednesday, Oct. 6 6:30-9:30 p.m.
9. Stirling Heights Henry Ford II HS Monday & Wednesday, Nov. 6, 8 6:30-9:30 p.m.
10. WISL, Lansing, Sheraton Hotel Saturday, Feb. 3, 2001
11. Genesee County ISD Monday & Wednesday, Feb. 12, 14, 2001 6:30 - 9:30 p.m.
12. MIAAA, Traverse City Saturday, March 17, 2001

LEVEL II
(One-day Seminars Unless Otherwise Noted) 9 a.m.-4 p.m.

1. Farmington Training Center Saturday, Aug. 12
2. Gladwin High School Saturday, Aug. 19
3. BCAM-Lansing Holiday Inn South Friday, Oct. 6
4. Saginaw Heritage Monday & Wednesday, Nov. 6, 8 6:30 - 9:30 p.m.
5. Stirling Heights Henry Ford II HS Monday & Wednesday, Nov. 6, 8 6:30 - 9:30 p.m.
6. WISL, Lansing, Sheraton Hotel Saturday, Feb. 3, 2001
7. Genesee County ISD Monday & Wednesday, Feb. 12, 14, 2001 6:30 - 9:30 p.m.
8. MIAAA, Traverse City Saturday, March 17, 2001

Regulation II, Section 3 of the MHSAA Handbook states:

"The Representative Council URGES that all schools strive to the standard that only qualified athletic members are used as head coaches of interscholastic teams, and that all non-faculty coaches complete the MHSAA's Program for Athletic Coaches' Education (PACE) or equivalent program."

ENROLLMENT FORM

Please complete and mail to:
Jerry Cvengros, Associate Director
MHSAA — 1661 Ramblewood Dr.
East Lansing, MI 48823

Name __________________________
Phone ( ) (home street address) (city) (zip)
( ) (work) (home)
( ) (school) (school ID#)
Program location & date __________________________
Amount enclosed __________________________
Previous PACE workshop experience __________________________
(Level I — location) (Level II — location)

I. Four-week course is $75 per individual.
II. PACE, Level I registration is $50 per individual and includes instruction, manual and lunch at site.
III. PACE, Level II registration is $25 per individual and includes instruction and lunch at site. Registrants must first complete Level I.
IV. Make checks payable to MHSAA.
V. Make every effort to pre-register.
Appendix F

Domain Specific Content – Rank of Most/Least Perceived Importance
<table>
<thead>
<tr>
<th>Domain</th>
<th>Rank</th>
<th>Frequency</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Teaching/Administration</td>
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<td>Various Teaching Methods</td>
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<td>Personnel Selection</td>
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<td>Social/ Psychological</td>
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<td>Evaluation of Practice and Competition</td>
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<td>Applying Ethical Conduct</td>
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<td>Specific Age Appropriate Strategies</td>
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<td>Enforce Rules of Governing Body</td>
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<td>Analyzing Human Performance</td>
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<td>Injury Prevention, Care/Management</td>
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<td>Prevention of Injuries</td>
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<td>Training, Conditioning/Nutrition</td>
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<td>Designing Training Programs</td>
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<td>Promote Chemical Health</td>
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<td>Professional Preparation/Development</td>
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Note: National Standard Domains are listed in the rank order of perceived importance. The results reflect responses that were the top two choices as most/least important in domains with four items. Domains with five or more items, results reflect the top three responses.
BIBLIOGRAPHY


