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Undergraduate Physical Education Teacher Preparation: What Practitioners Tell Us

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Introduction

Many believe academic performance in American elementary, middle and high schools is declining sharply. This perceived decline has frequently been attributed to poor teaching and thus, by extension, poor teacher preparation. This perception has been supported by educational scholars as well as citizens committed to improving the educational process. As far back as 1983, *A Nation at Risk* (National Commission on Excellence in Education, 1983) outlined disturbing inadequacies in the way the educational process is conducted. Although this frankly written document moved universities and colleges to examine the manner in which they prepared pre-service teachers, teacher education programs in the United States continued to be in disarray (Goodlad, 1990).

Over the past decade, there is evidence of significant scrutiny by researchers, practitioners, parents, politicians and the press regarding the goals, approaches and content of teacher education programs. Concurrently, there has been a strong movement towards standard-based programming, as well as increased attention from national professional societies and accrediting agencies. Despite these efforts, pre-service teacher education programs remain largely unchanged. Generally, these programs deliver a combination of subject matter knowledge, pedagogical knowledge, knowledge of learners and the learning of professional values and conduct (Metzler & Tjeerdsma, 2000). If anything has changed, it may be the relative amount of time given to each aforementioned area. Changes appear to be related to the priorities, resources and length of individual programs. Consistency across institutions is not apparent. Thus, the fundamental question remains: *how* can we better equip teachers with the skills necessary to conduct quality educational programs in schools (Bain, 1990)?

Despite the acknowledged need for improved, high-level preparation, pre-service teacher education program assessment has not received systematic attention. Metzler and Tjeerdsma (2000) have referred to program assessment as the "orphan" of teacher education, as it lies somewhere between pedagogy and research. Although teacher preparation can be regarded as a lifelong process, the preponderance of research has focused on formal teacher preparation delivered in colleges and universities (Bain, 1990). Furthermore, this research has narrowly examined selected aspects of pre-service education (e.g., student teaching, or the values held by pre-service teachers upon their arrival in college) (Ducharme & Ducharme, 1996).

As noted, despite general dissatisfaction with the preparation of teachers, there have been few significant curricular changes in teacher preparation (Metzler and Tjeerdsma, 2000). Changes made have come largely from "site specific" discussions at individual institutions, as well as follow-up surveys with recent graduates and/or their supervising teachers.

Although the appropriate preparation of teachers in *all* curricular areas is of paramount importance, we would argue that the preparation of physical education teachers requires particular attention. Because of physical education's marginalized value within schools (Bain, 1990), its

very existence is threatened. If the quality of teaching and learning in physical education is significantly sub-par, critics will have ample reason to argue for this program's reduction or, perhaps, complete removal.

A positive recent development in the preparation of physical education teachers is increased collaboration among teachers in higher education and their professional counterparts in the public schools (Metzler & Tjeerdsma, 2000, Van der Mars, (personal communication, September 30, 2001). Despite this collaboration, practitioners' perspectives concerning pre-service teacher education, is missing from the discussion—particularly in the area of curriculum development.

Galluzzo and Craig (1990) have outlined four purposes for teacher education program research: accountability, improvement, understanding and knowledge. Although we hope this work increases the professional knowledge base, our initial reason for conducting this research was to prepare our students to teach physical education in appropriate and meaningful ways consistent with the challenges of today's physical education instruction. Thus, the purpose of this research was to provide practitioner data to assist faculty in determining curricular decisions and future directions in undergraduate physical education programs.

Method

Participants

Kindergarten through twelfth grade physical education teachers from Wisconsin, Oregon, Washington, Idaho and California participated in this investigation during the winter and spring of 2000. Wisconsin teachers provided 256 responses, while 103 responses were received from teachers in the Pacific Northwest. Teacher demographics are outlined in Table 1. Table 1 demonstrates that the sample is both highly educated (with 44% of participants holding at least a Master's degree) and experienced (with 40% teaching for more than 20 years, and 67% teaching for ten years or more). The majority of these teachers (49%) taught in a rural setting, with the remainder relatively equally distributed between suburban and urban settings.

Survey Development

Survey development began with the designing of survey items and scales by the researchers. Next, four professionals, noted for expertise in pedagogy and curriculum design, reviewed the survey items and format and provided feedback on content validity, appropriateness of demographic information and readability. The seven-page survey was then pilot tested on six elementary

Table 1

Teacher Demographics

Setting	Grade Level taught	Educational Level	Years of experience
Rural (167)	K-8 (199)	Undergraduate (200)	1-5 years (71)
Suburban (96)	9-12 (60)	Master's degree (71)	6-10 years (45)
Urban (81)	K-12 (86)	Beyond one Master's degree (84)	10-20 years (96)
			More than 20 years (144)

and secondary physical education teachers, who provided written and verbal feedback. Once again, the survey was modified based on feedback regarding the clarity of questions and directions, readability and time to complete the survey. The revised survey consisted of 24 questions covering the following areas: (a) teacher demographics, (b) value of selected teaching approaches, (c) value of selected teaching certifications, (d) importance of selected functional teaching skills, (e) importance of selected activity based competencies, (f) importance of selected course work, (g) importance of selected programming areas, and (h) importance of selected in-service training topics. At the end of the survey, respondents were encouraged to add qualitative comments/suggestions regarding pre-service teacher education preparation. The wording was somewhat open ended, allowing a wide variety of responses.

Respondents were asked to respond to *each* option within a question on a six-point Likert scale ranging from 0 (no value) to 5 (high value). Questions had anywhere from 5 to 14 possible options, with no limits placed on respondents' answers. That is, they could give as many (or as few) fives, fours, threes, twos, ones or zeroes as they chose. A follow-up question then directed them to choose their first, second and third most valued option. An example of each type of question is provided in Table 2.

Table 2

Sample Questions

Q-1 Listed below are some approaches to teaching physical education. Based on your experience as a physical educator, do you place no value, low value, medium value, or high value on the following teaching approaches?

How much value do you give to each approach

	None (0)	Low (1)	Medium/Low (2)	Medium (3)	High/Medium (4)	High (5)
1. Adventure education (e.g. team building)						
2. Low organized games (e.g. lead up games)						
3. Physical fitness activities (e.g. weight training)						

Q-2 Of the approaches listed in Q-1, which do you feel are most important for our profession? (Please write the approach number from Q-1 on the appropriate line.)

Most Important _____

Second Most Important _____

Third Most Important _____

Procedures

Using a list of public and private schools in Wisconsin, each K-12 physical education department in Wisconsin received the survey and a cover letter with a return-stamped envelope. To survey physical education teachers in Oregon, Washington, California and Idaho, a sample of convenience was used. Survey responses were gathered at an annual physical education practitioners' conference in Portland, Oregon, attended by 311 physical education teachers. At the start of the conference, attendees received the survey and cover letter in their registration packets. Twice daily during the two-day conference, attendees were publicly encouraged to complete the survey by conference organizers. Completed surveys were placed in clearly marked boxes placed throughout the conference grounds.

Data Analysis

Data were examined by way of descriptive statistics. Frequency counts, percentages, means and standard deviations were tabulated. Data were entered and reduced, using the Statistical Package for the Social Sciences (SPSS) version 10.

Results

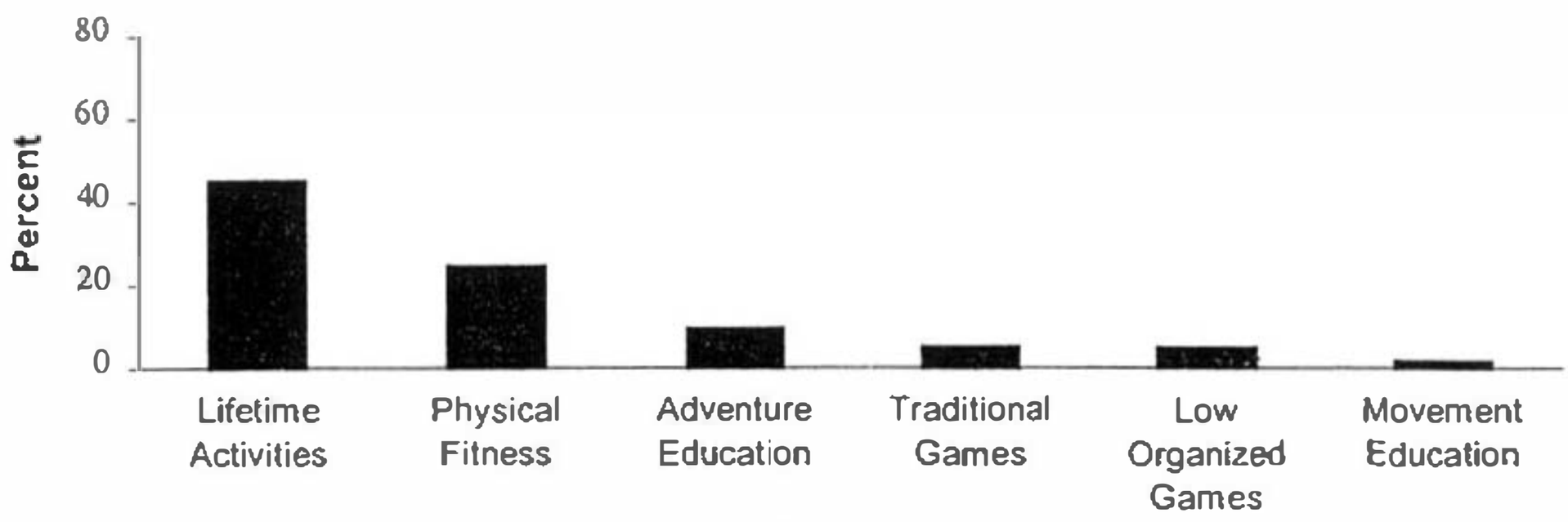
Survey return rate was 31% for the Wisconsin survey respondents and 33% for attendees at the professional conference in Oregon. Data across all respondents will be initially presented followed by, where appropriate, a breakdown by grade level taught (K-8 and high school). The data were broken down by grade level as a result of the greater number of K-8 practitioners in the study and because high school and K-8 teachers answered certain questions in a significantly different manner. Finally, qualitative responses were provided by 133 respondents and will be discussed throughout this section whenever appropriate.

Most Important Teaching Approach

Respondents were asked to indicate which teaching approach was most important for the physical education profession, given the following choices: (a) adventure education, (b) low organized games, (c) traditional games (e.g. team/individual sports), (d) movement education, (e) lifetime activities, and (f) physical fitness activities. A lifetime activities approach was viewed as significantly more important than other teaching approaches listed. Forty-five percent of the respondents selected lifetime activities as most important, while physical fitness was selected by 24% of respondents. Although anecdotal comments by respondents suggested an interest in adventure education, only 9% of respondents felt this approach was the most important to our profession. These results are presented in Figure 1.

Figure 1

Most Important Teaching Approaches



When grade level was taken into account, it became evident that high school physical education teachers viewed lifetime skills as extremely valuable, with 63% identifying this as the most important curricular approach. Interestingly, lifetime skills was also viewed as the most important teaching approach (35%) by teachers working in elementary and middle school. Both elementary educators and those working at the secondary level felt that a physical fitness approach was important, with 24% and 21% respectively making this curricular area their top priority.

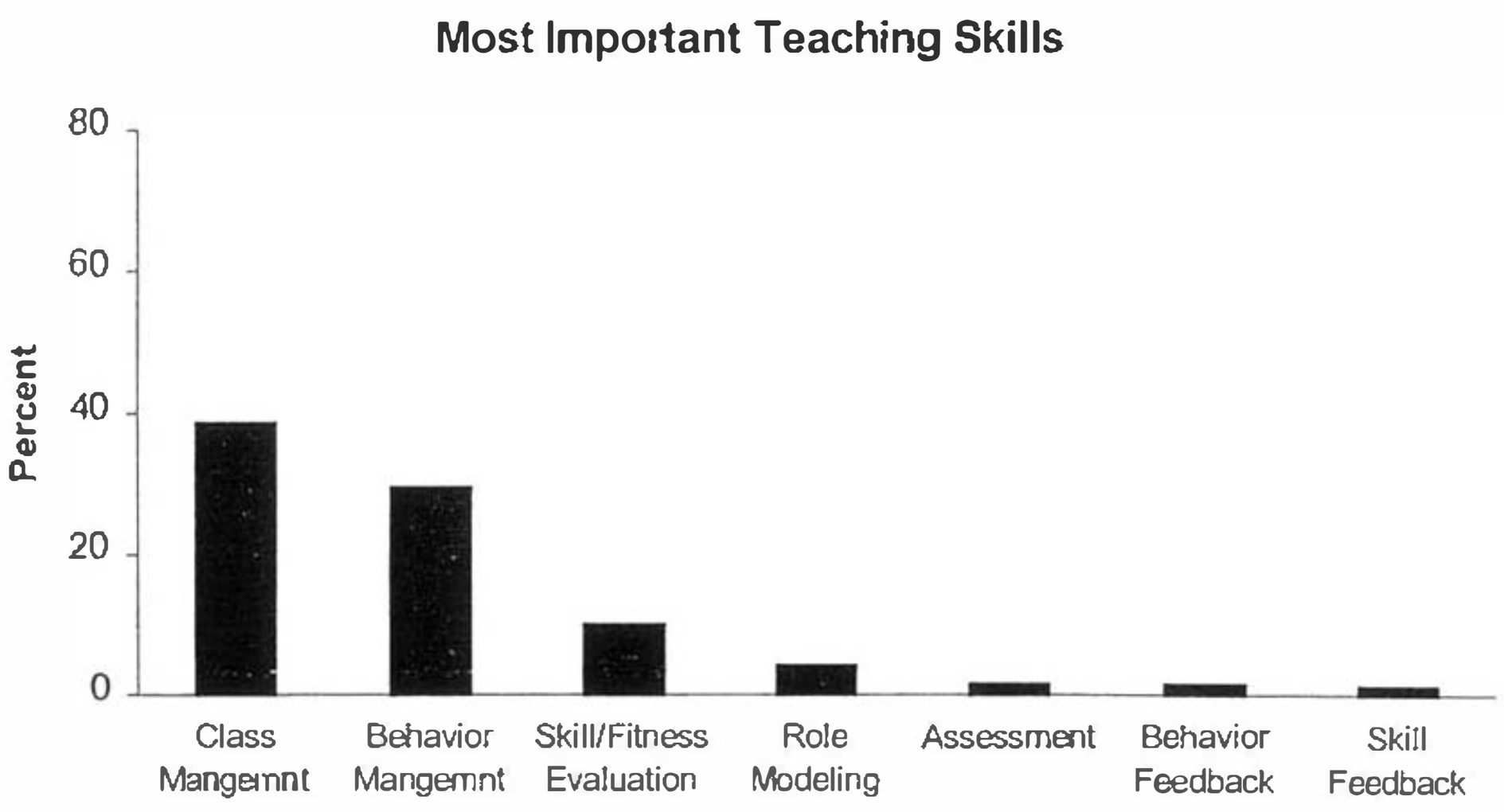
Qualitative data supports the above findings, perhaps best reflected in the following comment from an elementary school physical educator: "Physical educators must understand that the ultimate goal of your field must be to encourage ALL people to lead an active lifestyle." A middle school educator stated: "I believe the most important thing we need to teach students is how to be fit for life. Activities must all be packaged so they will have fun, experience success and learn that it's not just for today's class or grades but also for life!"

The importance of creating an atmosphere of fun and play was echoed by a number of professionals. A K-12 educator concluded, "Play is one of the most important factors in a healthy joyous life experience. I want them aware they have moved (sweated, heart rate elevated and muscles used) and are smiling and giggling and looking forward to more."

Most Important Teaching Skills

Respondents indicated which skill was most important in teaching effectively, given the following choices: (a) behavior management, (b) personal skill proficiency, (c) classroom organization and management, (d) skill/fitness/ knowledge evaluation, (e) providing feedback regarding behavior, (f) assessment (measurement and evaluation), (g) provision of feedback regarding physical skill performance, and (h) personal fitness level (role modeling). Skills concerning "classroom management" (38% of respondents) or "behavior management" (29% of respondents) dwarfed all others in terms of importance (Figure 2). The next most popular choice—"fitness skill evaluation" garnered 10% of the respondents' vote. When broken down by grade level taught, these data remained consistent.

Figure 2



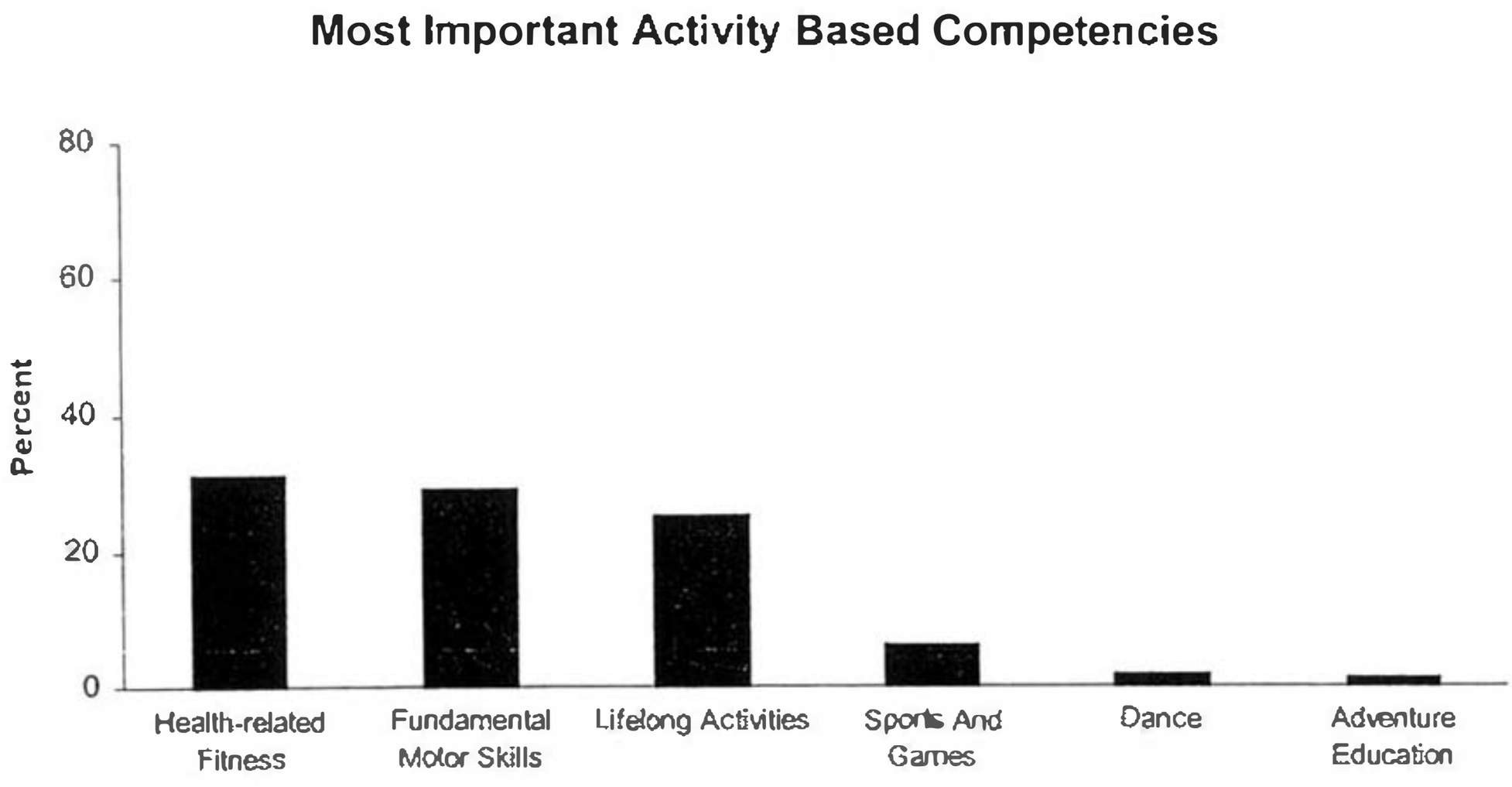
Qualitative data supported the importance of behavior management and classroom management techniques. "I believe classroom organization, management, and behavior management are *very* important," stated one middle school teacher. An elementary teacher agreed. "There needs to be more realistic discipline techniques taught and they need to practice them in college." A high school teacher echoed this concern: "It is very unfortunate that new teachers need to know so much about behavior control, but without it they will not survive." A middle school educator indicated that practicing teachers also need support and ideas in behavior management, stating, "Even as an existing teacher I am constantly looking for new ideas."

Most Important Activity Based Competencies

Reflecting on their preparation and teaching experience, respondents were asked to indicate the amount of emphasis that should be given to the following activity based competencies in undergraduate physical education programs. In other words, they were to determine which were the most important in terms of teaching effectiveness. They were given the following choices: (a) fundamental motor skills, (b) sports and games, (c) lifelong leisure activities, (d) dance and rhythms, (e) exercise and health-related fitness, and (f) adventure education. Exercise and health-related fitness (31%), fundamental motor skills (29%), and lifelong leisure activities (25%) were valued at high levels (Figure 3). Conversely, activity-based competencies in the areas of sports and games (6%), dance and rhythms (1.5%), and adventure education (1%) were viewed as much less valuable.

The grade level taught had a significant bearing on what activity-based competency was viewed as the most important. While 44% of elementary and middle school teachers valued fundamental motor skills highly, only 16% of high school teachers felt this way. Conversely, 45% of high school teachers viewed lifetime skills as important, while 35% of elementary and middle school teachers felt this way. With regard to exercise and health related fitness, both elementary/middle school teachers and high school teachers were in agreement regarding its worth (30% and 26% respectively).

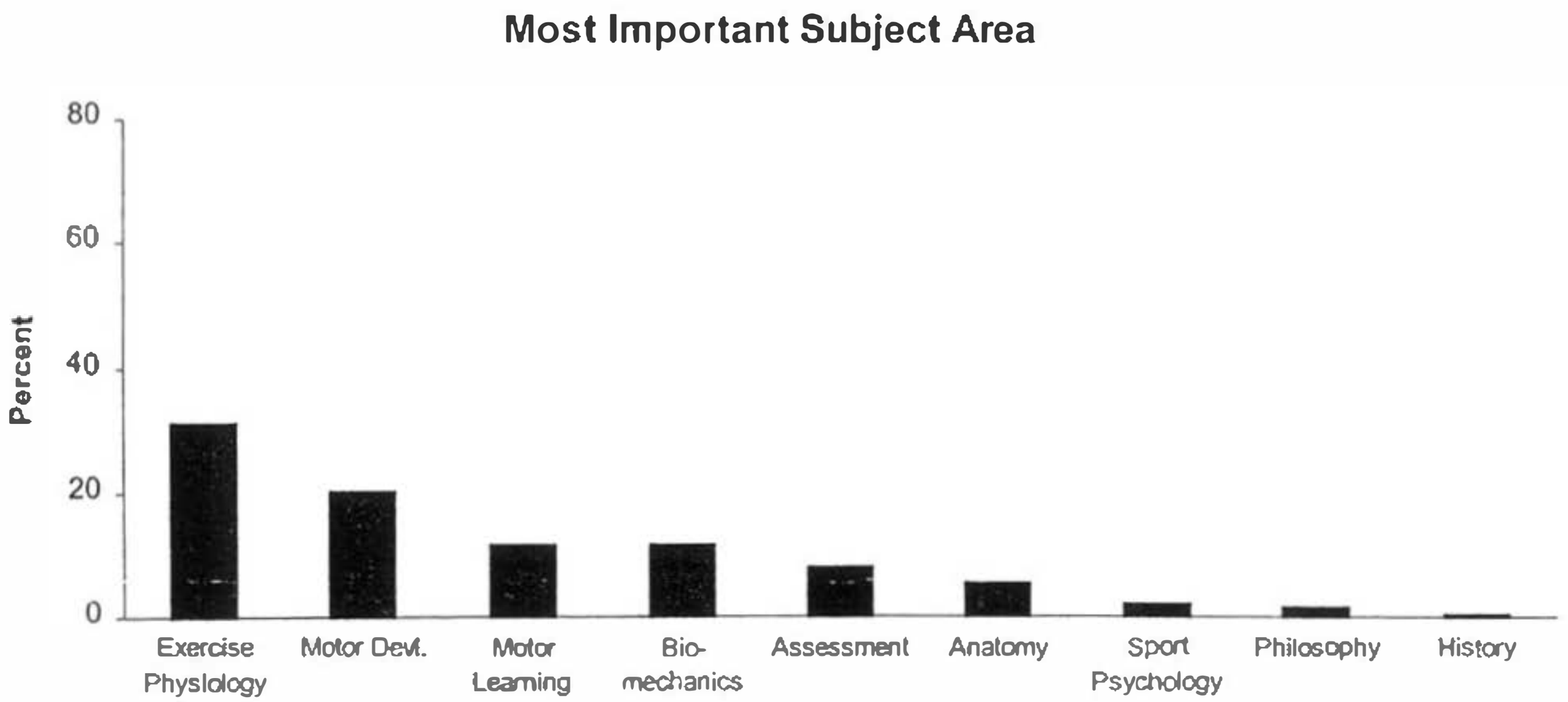
Figure 3



Most Important Subject Area

Participants indicated which academic subject was most valuable in terms of their preparation, given the following choices: (a) exercise physiology, (b) assessment (measurement and evaluation), (c) human anatomy, (d) biomechanics/kinesiology, (e) motor learning, (f) motor development, (g) history of physical education and sport, (h) sociology of sport, (i) sport and exercise psychology, and (j) philosophy of sport. The overall results are presented in Figure 4.

Figure 4



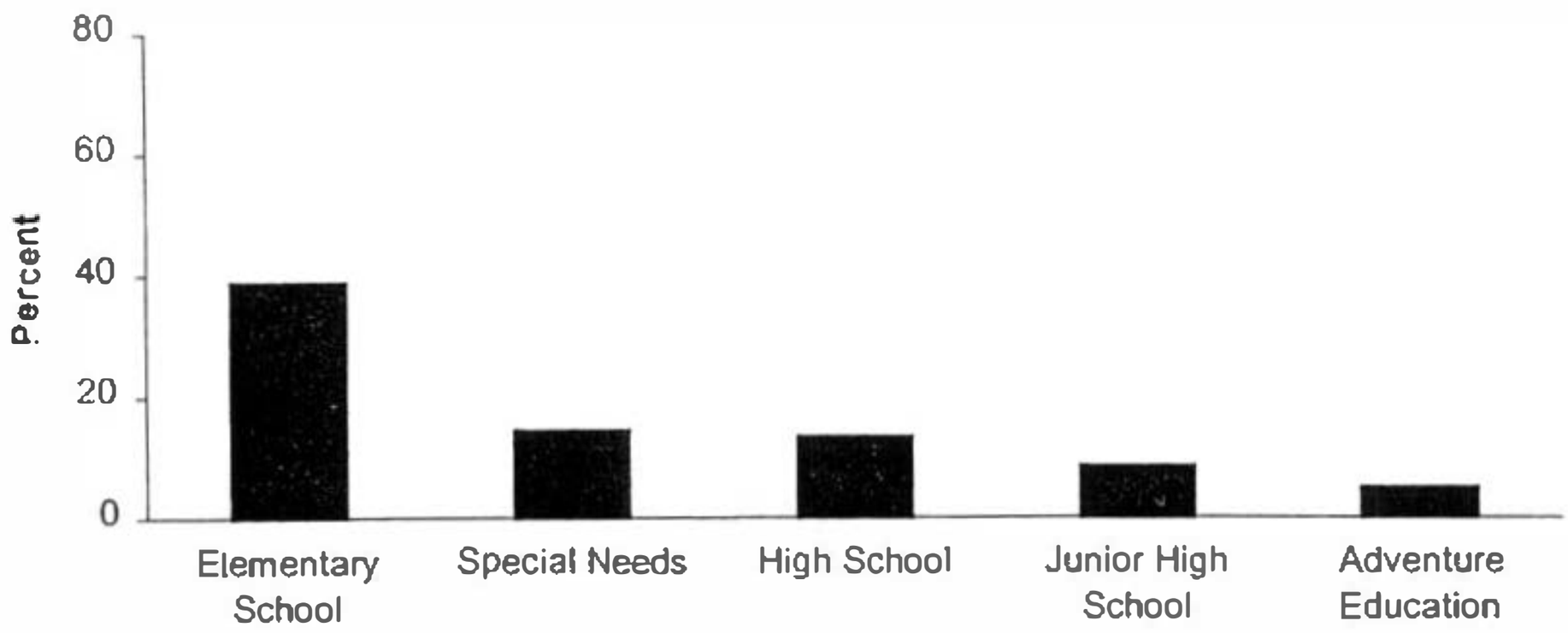
At the high school level, 38% viewed exercise physiology as the most important subject while 27% of elementary and middle school teachers shared this perspective. The value of exercise physiology was best demonstrated by the following comment from a high school educator: "I do integrate a good deal of physiology and human kinetics into my classes. I want physical education seen as a science class, with their bodies as the lab subject." While elementary and middle school teachers felt that motor development was critical to their pre-service development (26%), only 10% of high school teachers felt this way.

History, sociology of sport, exercise and sport psychology and philosophy were seen as significantly less important. Less than 1% of participants identified these subject areas as the most important.

Most Important Instructional Area

Teachers participating in this investigation indicated which instructional area was of most importance given the following choices: (a) physical education programming for students with special needs, (b) physical education programming for elementary school students, (c) physical education programming for junior high school students, (d) physical education programming for high school students, and (e) adventure education programming. As shown in Figure 5, competency

Figure 5



in physical education programming for elementary school was seen as more important than the other programming areas (38% of respondents). As would be expected, a majority of K-8 physical educators (55%) believed programming for elementary school was the most important. Interestingly, 25% of high school physical education teachers felt the same way. Programming for students with special needs was viewed as the most important for the same number of K-8 and high school teachers (15%). Anecdotal comments suggested that pre-service teachers have less experience with elementary-aged students, and thus begin their teaching tenure with less well developed tools.

Experiential Learning

In closing, it is important to mention the strong suggestions in the qualitative data for providing undergraduate students with hands-on teaching opportunities as early as possible in their pre-professional training. Many respondents spoke of being unprepared for teaching children after their own undergraduate curriculum. An elementary teacher, reflecting on her training summarized her dissatisfaction with the curriculum: "It has been 13 yrs since I graduated from college, and the most glaring omittance from my preparation was hands-on learning. I honestly feel that I should have been with school-aged children and learning from *real*, in-the-trenches teachers who could let me absorb some of their experience and ideas." These thoughts are echoed by another elementary educator: "Students need more real world experiences. Professors need to be aware of what present teachers are actually doing in their area and prepare students for 500+ students a week, two times a week classes etc., and realistic prep." One high school teacher said, "To get a better understanding of teaching health or physical education, college students need to go right to schools and observe or participate in the activities. Hands-on teaching activities, I feel, are always the best."

Discussion

Bain (1990) and Lawson (1985a) have noted that practitioners employed in the elementary, middle and high schools prefer *working* knowledge that blends the scientific, empirically derived with the practical and experientially gained. After examining and evaluating the data in light of the demographics of survey respondents, it appears

we have both types of information. By attending to the quantitative and qualitative data gathered from practicing teachers, we may be able to focus the pre-service education of physical education teachers more sharply and accurately.

A significant amount of support emerged from the data with regard to the following general categories: teaching skills, teaching approaches, and activity-based competencies. With regard to teaching skills, classroom organization and behavior management were mentioned frequently. These findings are in concert with recent data (Hellison, 1995) that suggest physical educators are leaving teaching because of the perceived increase in behavior problems and a lack of preparation in dealing with these incidents. In all likelihood, participants have observed or worked with colleagues who were not adequately prepared in classroom organization and/or behavior management techniques. From this data, it appears teacher preparation programs are not spending adequate time or resources preparing pre-service teachers to deal with a more diverse and, potentially, difficult to teach student body. A student body that, due to a reduction in contact hours, teachers don't get to know as well. Our results point to the need to teach positive and proactive behavior management strategies originating from a sound theoretical base. Learning and practicing these skills within the context of "real world" practicum experiences appears to be essential (G. Reid, personal communication, June 24, 2001).

Regarding teaching/curricular approaches, an emphasis on lifetime activities and physical fitness activities was evident at both the K-8 and high school levels. Clearly, our sample's attitude matches the focus at both the local and national levels (NASPE, 1995) on teaching physical skills and activities that can be enjoyed and built upon throughout one's life, and on teaching health-related fitness activities and concepts. One message for teacher preparation faculty includes the need for examination of curricular offerings in the basic "sports skills" classes. Should we, instead, move beyond our more traditional team and individual sport skills, and incorporate more activities that would appeal to a broader range of students (e.g., rock climbing, skateboarding or archery)? It seems important to provide students with activities that could be pursued for a lifetime.

A second message concerns the teaching of health-related fitness. Are we preparing physical education students to teach these concepts in a meaningful, understandable and integrated manner? Are school-aged students exposed to approaches to teaching health-related fitness that are educationally sound and enjoyable? A potential approach would be to prepare physical education students to seamlessly combine the two curricular approaches (lifetime activities and health related fitness), thereby providing school-age students the skills and knowledge to pursue lifetime activities, which encourage and incorporate physical fitness. A potential issue involves educating students beyond the gymnasium and fields and promoting healthy lifestyle behaviors and skills. One could argue that the teaching of lifetime skills and physical and health-related fitness are important goals in any sound physical education program; the clear support from practitioners gives added credence to this position.

With regard to coursework offered within the physical education major, a somewhat surprising finding was the high ranking "exercise physiology" received from all teachers. Although one might expect college faculty to rank this scientifically based course highly, for practitioners to do so, perhaps, further supports the previously noted emphasis on health-related fitness and the teaching of lifetime activities. Less surprising was the importance placed on motor development, especially by teachers at the elementary and middle school levels. These findings support instruction in the development, structure and function of physical systems and how these systems interact in the development of motor skills.

An unexpected finding was the low level of importance attached to adventure education, both in terms of a curricular approach, and in terms of

additional in-service training. This was unanticipated, given the recent attention to affective goals in physical education (Gallahue, 1996; Graham, 2001; Hellison, 1995), and recent attention given this approach at national and regional teacher education conferences. In the state of Wisconsin, a number of school districts have invested in climbing walls and challenge courses, thereby combining physical education with experiential concepts. Perhaps, surveyed practitioners have had little exposure to adventure programming, or do not perceive adventure education to be closely linked to physical education. Indeed, adventure education is taught predominantly in therapeutic recreation and experiential education departments, rather than physical education departments (Roth, 2001). As well, there may be concerns regarding risk, liability and the costs associated with starting up and maintaining a program (e.g., building climbing walls). Given their recent experiences in Wisconsin, the authors expected adventure education to garner more support.

In summary, pre-professional preparation faculty must closely examine the curricular opportunities afforded pre-professionals with respect to exposure to lifetime activities, physical and health-related fitness and behavior management and classroom organization. They must specifically analyze the depth and breadth of opportunities afforded students to work directly with children in well-supervised practicum settings. The opportunity to apply theory to practice and receive appropriate feedback from faculty, cooperating teachers, peers and children allows for individual growth and ultimately, growth within the profession. Assessment of undergraduate curriculum, and, utilization of input from practitioners, provides another voice in the attempt to improve the preparation of future professionals. As professionals involved in curricular revision, we would recommend this data be used to help guide the process, but not to drive it. We have gained insights from practitioners; such insights will assist us in shaping the direction of teacher preparation.

Limitations

While examining the survey data, a number of questions need to be asked with regard to curricular revisions. Do the practitioners who completed the survey have significant professional information and does their extensive experience in the field make them more or less open to change? How much stock should be given to gathered data when shaping future curriculum, and how closely does the survey data align with "best practices" within our physical education profession? How do we determine what is valued and what is not? Results of this study are limited by the fact that there is no guarantee that the surveyed practitioners represent a highly qualified group of experts. On the other hand, herein lies the appeal and strength of this study. We are hearing the voices of practitioners.

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