

# Re-defining the Role of Physical Activity Courses in the Preparation of Physical Education Teaching Professionals

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Physical education as a teaching discipline is in a state of crisis and recent reports on the status of physical education within our universities (Chu, 1989; Macintosh, 1992) and our schools (van Holst, 1992) illustrate the extent to which problems exist. Internal dilemmas, at the level of higher education, include confusion over the profession's identity in the greater academic community (Sage, 1987), a tendency to see physical education as inferior to other disciplines (Corbin, 1993), and what Massengale (1987) has termed "institutionalized helplessness" or an "inability to predict, control or determine [our] . . . professional destiny. . ." (p. 2). Teaching programs, moreover, seem to be merely encouraging students to engage in routine actions to get the job done (Tinning, 1988) rather than to develop rich, flexible and expandable professional knowledge bases. Most importantly, the quality of physical education instruction at the elementary, junior and senior high school levels, has been compromised and confidence within the discipline, and externally in the form of public confidence, is sadly lacking (Tempelin, 1987).

One possible reason for this predicament within the schools may be simply that, over the last few decades, undergraduate physical education programs have lost sight of the objectives and the value of physical activity courses in the preparation of future teaching professionals. Activity courses are

those via which students gain declarative, procedural and conditional knowledge about sport, dance and physical activity, through a hands-on, primarily participation-based approach. A student enrolled in an activity course in squash, for example, learns about the history and rules of the game, as well as the mechanics of basic and advanced strokes, footwork and positioning via classroom-based and on-court instruction. Some time may also be spent on honing observational and evaluation techniques in order to provide feedback to fellow students. Courses like this were once an integral part of physical education programs, however, in recent years their status has dwindled. To comprehend why, one must understand the history of physical education, and its struggle to find a balance between its professional and disciplinary identities.

## **HISTORICAL BACKGROUND**

Formal physical education programs emerged in the late 1800s when the political policies of democracy signalled the need for physically fit citizen armies (Glassford, 1992). Physical educators were trained within the universities and they subsequently introduced activity and sport programs into the public schools. Opposition to the discipline within the universities, however, was strong. In an attempt to counter their critics and to legitimate the discipline, university physical educators accepted the responsibility of overseeing university athletic programs at the turn of the century (Chu, 1989). Intercollegiate sports pro-

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grams were beset with moral and ethical problems at this time, but the acquisition of physical (e.g., stadia, gymnasia) and human (e.g., coaches) resources afforded by the new alliance provided physical education programs with some much needed visibility. According to Chu (1989), there is little evidence that physical education departments were ever given real control over intercollegiate sport, yet coaches were awarded faculty status in return for their teaching of activity courses.

As faculties and departments evolved, and intercollegiate sport grew, the value of the alliance between physical education and athletics was questioned. By the 1960s, academic programs began to distance themselves from intercollegiate athletics, making it possible to hire faculty to teach and to conduct research (Corbin, 1993). Those who had an interest in physical education as a profession were gradually displaced from the faculty ranks, as the search for academic credibility (Corbin, 1993) and the aging of the "Baby Boom" generation (Hawkins & McLean, 1993) led programs to alter their focus from the profession (i.e., careers in teaching) to the discipline. Physical educators began to align themselves with the parent disciplines of physiology, sociology, psychology and the like while at the same time distancing themselves from instructional physical education programs (Lawson, 1990). By the 1990s, many departments and faculties had gone as far as to drop the physical education label, preferring to be known as kinesiology or human movement programs.

### **CURRENT STATUS**

A consequence of this shift in emphasis from the profession to disciplinary study, and hence the increased demand for courses in non-teaching areas of physical education, has been a reduction in the number and breadth of activity courses offered, or, their elimination from the curriculum (Corbin,

1993; Macintosh, 1992). In those undergraduate programs where such courses are still offered, their value has been marginalized (Sage, 1987) in the eyes of the students by the frequent allocation of teaching responsibilities to part-time instructors and graduate students rather than the full-time academic faculty. Moreover, often little control is exercised over course content or the method of course delivery leading to less than effective instructional experiences. Students are often inactive and little if any attention is paid to pedagogical issues (Livingston, 1993). Sadly, students are frequently graded on the basis of skill performance with high marks being awarded to the best athletes. University students, not unlike their high school counterparts (Chernysh & Crossman, 1994), avoid unfamiliar and work-demanding courses, searching for those that will provide the opportunity to meet program requirements and afford high grades (i.e., they enroll in familiar activities, ones that they are already proficient at, rather than novel ones) to improve their grade point averages or to increase the probability of gaining admittance to post-degree programs (Sperber, 1990).

The net result has been that graduates of physical education and kinesiology programs are now more likely than ever to enter post-degree teacher education programs with lesser knowledge (i.e., declarative, procedural) than their predecessors of basic physical activity, sport and dance. Equally problematic are the misconceptions about teaching that these potential physical education teachers may gather through their activity course experiences. There is a substantial body of evidence to suggest that preservice and novice teachers will teach as they were taught (Kennedy, 1991; O'Sullivan & Tsangaridou, 1992; Tinning, 1988) and that previously acquired beliefs about content, instruction and evaluation will influence curricular decisions (Ennis, 1994). Preestablished observations and be-

liefs about teaching (gathered via poorly taught activity courses) may lead students to reject some or all aspects of their teacher education programs, resulting in what has been termed knowledge disavowal (O'Sullivan & Doutis, 1994; Rovegno, 1993). If left unchanged, ill-conceived perspectives that undergraduate students have of the physical education teacher's role prior to entering teacher education may, as Hutchinson (1993) has suggested, "potentially perpetuate a teaching force already stereotyped as "rolling out the ball" (p. 353).

Indeed, today's elementary and secondary school physical education programs have been ineffective in instilling positive student attitudes toward physical activity largely because the quality of instruction has been compromised (Templin, 1987). There are several reasons for this. First, students spend large amounts of class time being inactive, often as a result of the teachers' improper curricular choices and ineffective instructional behaviors (McKenzie et al., 1993). Second, teachers themselves all too frequently display limited enthusiasm for activity (Wilson, 1993a, 1993b). Third, and perhaps most disturbing, is the observation that success in physical education is often measured through skill performance (Chernysh & Crossman, 1994) at the expense of fun, participation and personal progress (Macintosh, 1992). Teachers, in taking interest in the best athletes (Hall, Slack, Smith, & Whitson, 1991), have alienated the less competent and inadvertently created a competitive atmosphere in the classroom. Finally, permissive and elective curricula contribute to the problem by allowing the dissatisfied to opt out of physical education (Chernysh & Crossman, 1994; Macintosh, 1992), a decision bolstered by the perception of students and their parents that enrollment in more traditional academic courses would aid in ensuring entrance into college or university programs (Templin, 1987).

## THE CHALLENGE

It would be erroneous to imply that such problems exist in all school physical education programs. Yet, without change, it would seem reasonable to suggest that the problem will only get worse if undergraduate physical education programs continue to ignore their role in preparing students for careers in teaching. University and college-based physical education programs must accept the task of ensuring that teacher preparation meets the needs and expectations of current desired practice within the schools (Macintosh & Whitson, 1990; O'Sullivan & Doutis, 1994). We must also assume some of the responsibility for the sad state of affairs in the schools. In our search for academic credibility as sport scientists, the obligation to prepare students for professional careers has been neglected (Ziegler, 1993). Students will continue to pursue teaching careers and, as such, we have a responsibility to assist them in becoming qualified for such roles.

It seems appropriate, at this time, to propose specific objectives for undergraduate physical activity courses, and to recommend specific criteria to be implemented for the realization of such objectives. These suggestions should not be viewed as a firm prescription of what physical activity courses should be, but rather as a beginning point for critical thought and discussion aimed at redefining their value in undergraduate physical education and/or kinesiology programs.

## FUTURE DIRECTIONS

To meet the needs and expectations of current desired practice, and to prepare undergraduates for careers as professional physical educators, undergraduate physical activity courses should challenge students, and afford them the opportunity, to accomplish the following objectives:

### *Develop Rich and Varied Knowledge Bases Related to the Teaching of Physical Activity*

The primary purpose of post-secondary education is to assist students in building an extensive and detailed long-term memory store, the contents of which will be dictated largely by the subject area in which they major. As a result of the information gathered and experiences encountered, distinct memory reserves capable of storing differing types of knowledge are thought to evolve (Tulving, 1985). Three of these memory reserves, which are thought to underlie the development of teaching expertise (Shulman, 1987), have been defined by Ennis (1994, p. 165) as follows:

*Declarative knowledge* (or subject matter knowledge) is factual information that serves as the foundation for the disciplinary knowledge base. Declarative knowledge must be connected to the student's experience in order to be remembered and used.

*Procedural knowledge* (or pedagogical content knowledge) consists of information about how to perform a task. The ability to analyze movement and to prescribe appropriate corrections, in relation to the developmental stage of the learner, is required as is an understanding of effective teaching strategies.

*Conditional knowledge* is knowledge of when, why and under what conditions declarative and procedural knowledge should be used. It may include when to use a teaching style or when to introduce the next skill progression. This category of knowledge may be strongly influenced by the beliefs of the teacher.

While declarative knowledge is necessary for the development of the more complex structures associated with procedural knowledge (Martinek, 1991), such knowledge alone does not make a person a good teacher of that subject (Ferguson & Womack, 1993).

Indeed, qualitative performance differences between beginning and expert teachers are attributed to highly developed, richly detailed declarative, procedural and conditional knowledge bases (Dodds, 1994) from which the latter can easily access and integrate information when needed.

### *Integrate Information Across Knowledge Bases*

Teachers must draw information from all three knowledge domains to create effective and efficient learning experiences. The diverse interests and abilities of the learners in the activity environment often demand individualized solutions; therefore, the ability to access and integrate information across domains is vital. Indeed, the more effectively the teacher's knowledge networks are connected, the more alternative solutions the teacher can generate to teach any given skill (Ennis, 1994).

### *Explore Reflective Thought Processes*

Teachers of the future must be seen as thoughtful persons intrinsically motivated to analyze a situation, set goals, plan and monitor actions, evaluate results and reflect on their own professional thinking (Colton & Sparks-Langer, 1993). The importance of reflective thinking in physical education cannot be underestimated, for without it, teachers may simply continue to search for new ways to teach inappropriate content (van Holst, 1992) rather than to critically explore all aspects of their teaching. Indeed, if physical educators are to break the pedagogy of necessity and test the pedagogy of the possible, reflective thinking will be required (Tinning, 1988).

### *Appreciate the Issue of Equity*

Undergraduate physical education majors have high personal perceptions of athletic competence (Crocker & Ellsworth, 1990) and skill, and enjoy participating in sport and physical activity. Personal percep-

tions such as these, however, may make it difficult for them to understand the hesitation of others to become involved. For many students, hesitation to participate in school physical education programs is related to the nature of the class environment. The physical education milieu can be discriminatory and hostile and as such, teachers must attempt to create equity for all by addressing motor elitism, racism, sexism, homophobia and other social injustice issues (Dodds, 1994). Therefore, physical education teaching must extend beyond the traditional academic agenda to include the social, political and moral dimensions of physical activity (O'Sullivan & Doutis, 1994).

### IMPLICATIONS FOR INSTRUCTION

All teacher education and physical education faculty members must share similar views of effective teaching and be committed to practice the underlying philosophy of the program in their own teaching (Taggart, 1988). They must envision activity courses as opportunities to educate future elementary and secondary school teachers, rather than to develop high performance athletes and coaches. As such, appropriate instructional strategies must be implemented and may include the following:

#### *Creating Information-Rich Learning Environments*

Activity courses should aim to create rich declarative, procedural and conditional knowledge bases of physical activity by deliberately presenting such information to students (Livingston, 1993). While it is important that students be well grounded in understanding the elements of skilled movement, the need to excel should be de-emphasized (Dodds, 1994) so that time may be taken to address relevant pedagogical-content and conditional issues. Instructors can themselves convey information from all domains by incorporating innovative teach-

ing strategies and simulations (Colton & Sparks-Langer, 1993; Graham et al., 1993) or through the use of expert role models and case-based instruction (Martinek, 1991; O'Sullivan & Doutis, 1994).

#### *Utilizing Active Learning Environments To Enhance Knowledge Acquisition*

If physical education teachers are expected to deliver their services in active learning environments, it seems logical to suggest that activity courses are best taught in the same. As Housner and French (1994) have suggested:

We must be careful not to hypocritically espouse the importance of educational practices such as active learning, curricular relevance, and authentic assessment and then place students in large lecture classes in which knowledge is transmitted passively and assessed only through the use of objective tests (p. 243).

It is not fully known how much one's knowledge structure evolves from performing a skill versus watching it being performed (Starkes, 1987), yet there is evidence to suggest that the acquisition of procedural knowledge is enhanced through hands-on experience (Glasson, 1989). Active learning environments also afford instructors (i.e., in some cases, full-time academic faculty members) the opportunity to be physically active, providing positive role models for their students in the same way that elementary and high school teachers should do with their students (Wilson, 1993a, 1993b).

#### *Relating Theoretical Knowledge to Professional Practice*

Activity courses should be viewed as opportunities to emphasize to students how theory relates to practice in the field (Housner & French, 1994). Instructors should highlight, where possible, the explicit links between knowledge gathered via undergraduate coursework in the subdisciplines (e.g., biomechanics, exercise physiology, mo-

tor development, motor learning, etc.) and the activity being studied. This will assist the future teacher in understanding how theory relates to practice, and in establishing and enhancing links within and between their personal knowledge structures. The establishment of such links is vital, for the more effectively a teacher's knowledge networks are connected, the more alternative solutions they can generate, for example, when teaching a skill (Ennis, 1994).

#### *Requiring the Study of Ethics in Physical Activity*

If future physical education teachers are expected to address the social, political and moral dimensions of physical activity (O'Sullivan & Douthett, 1994), then enrollment in at least one ethics course seems warranted.

#### *Changing the Focus of Student Evaluation*

Grades for physical activity courses should not be calculated on the basis of skill performance. More innovative methods of assessment might include the provision of marks for activities requiring the use of reflective thought processes (Connolly & Wood, 1992) or movement analysis skills (Dodds, 1994). Evaluating pedagogical approaches using a case study approach, or other innovative tasks specifically aimed at eliciting declarative, pedagogical-content and conditional knowledge, relative to the activity at hand, may also be advocated.

### **CONCLUSION**

The lack of public confidence in school-based physical education programs has provided the impetus for university physical education programs to re-think, first, the need to offer and, second, their approach to teaching physical activity courses. The preparation of future teachers begins during the completion of the undergraduate degree and it is activity, not sport psychology or biomechanics, that must be effec-

tively taught in the classroom. Better informed consumers, including the students enrolled in all levels of our educational system, are asking for more specific and competent services (Godbout, Samson & Berube, 1992) from teaching professionals. If we expect youth to place value on physical activity, then we best value it in our undergraduate programs by delivering quality activity course instruction. The time for change is now.

### **REFERENCES**

- Chernysh, K., & Crossman, J. (1994). The perception of students regarding grading in physical education. *CAHPER Journal*, 60(1), 21-24.
- Chu, D. (1989). *The character of American higher education and intercollegiate sport*. Albany, New York: State University of New York Press.
- Colton, A.B., & Sparks-Langer, G.M. (1993). A conceptual framework to guide the development of teacher reflection and decision making. *Journal of Teacher Education*, 44(1), 45-54.
- Connolly, M., & Wood, G.A. (1992). Dustballs in the equipment room: A metaphor for reflective praxis in physical education. *CAHPER Journal*, 58(1), 7-11.
- Corbin, C.B. (1993). The field of physical education - common goals not common roles. *JOPERD*, 64(1), 84-87.
- Crocker, P.R.E., & Ellsworth, J.P. (1990). Perceptions of competence in physical education students. *Canadian Journal of Sport Sciences*, 15(4), 262-266.
- Dodds, P. (1994). Cognitive and behavioral components of expertise in teaching physical education. *Quest*, 46(2), 153-163.

- Ennis, C.D. (1994). Knowledge and beliefs underlying curricular expertise. *Quest*, 46(2), 164-175.
- Ferguson, P., & Womack, S.T. (1993). The impact of subject matter and education coursework on teaching performance. *Journal of Teacher Education*, 44(1), 55-63.
- Glassford, R.G. (1992). History of the physical activity sciences. In C. Bouchard, B.D. McPherson, & A.W. Taylor (Eds.), *Physical activity sciences* (pp. 9-17). Champaign, Illinois: Human Kinetics Publishers.
- Glasson, G.E. (1989). The effects of hands-on and teacher demonstration laboratory methods on science achievement in relation to reasoning ability and prior knowledge. *Journal of Research in Science in Teaching*, 26(2), 121-131.
- Godbout, P., Samson, J., & Berube, G. (1992). The service component of the physical activity sciences. In C. Bouchard, B.D. McPherson, & A.W. Taylor (Eds.), *Physical activity sciences* (pp. 131-137). Champaign, Illinois: Human Kinetics Publishers.
- Hall, M.A., Slack, T., Smith, G., & Whitson, D. (1991). *Sport in Canadian society*. Toronto, Ontario: McClelland & Stewart Incorporated.
- Hawkins, B.A., & McLean, D. (1993). Delivering services to a diverse aging population: Challenges for the future. *JOPERD*, 64(4), 31-34.
- Housner, L.D., & French, K.E. (1994). Future directions for research on expertise in learning, performance, and instruction in sport and physical activity. *Quest*, 46(2), 241-246.
- Hutchinson, G. (1993). Prospective teachers' perspectives on teaching physical education: An interview study of the recruitment phase of teacher socialization. *Journal of Teaching in Physical Education*, 12, 344-354.
- Kennedy, M.M. (1991). Some surprising findings on how teachers learn to teach. *Educational Leadership*, 49(3), 14-17.
- Lawson, H.A. (1990). Sport pedagogy research: From information gathering to useful knowledge. *Journal of Teaching in Physical Education*, 10, 1-20.
- Livingston, L.A. (1993). Integrating declarative and procedural knowledge for a practical, hands-on learning experience. In D. McIntosh (Ed.), *Proceedings of the sixth annual show & tell for Ontario colleges and universities conference* (pp. 143-153). Guelph, Ontario: University of Guelph.
- Macintosh, D. (1992). Glancing back, looking forward: The R. Tait McKenzie Address, 1992. *CAHPER Journal*, 58(4), 9-17.
- Macintosh, D., & Whitson, D. (1990). *The game planners: Transforming Canada's sports system*. Montreal, Quebec: McGill-Queen's University Press.
- Martinek, T.J. (1991). *Psycho-social dynamics of teaching physical education*. Dubuque, Iowa: William C. Brown, Publishers.
- Massengale, J.D. (1987). Considering the future of physical education. In J.D. Massengale (Ed.), *Trends toward the future in physical education* (pp. 1-7). Champaign, Illinois: Human Kinetics Publishers.
- McKenzie, T.L., Sallis, J.F., Faucette, N., Roby, J.J., & Kolody, B. (1993). Effects of a curriculum and inservice program on the quantity and quality of elementary physical education

- classes. *Research Quarterly for Exercise and Sport*, 64(2), 178-187.
- O'Sullivan, M., & Douthett, P. (1994). Research on expertise: Guideposts for expertise and teacher education in physical education. *Quest*, 46(2), 176-185.
- O'Sullivan, M., & Tsangaridou, N. (1992). What undergraduate physical education majors learn during a field experience. *Research Quarterly for Exercise and Sport*, 63(4), 381-392.
- Rovegno, I. (1993). The development of curricular knowledge: A case of problematic pedagogical content knowledge during advanced knowledge acquisition. *Research Quarterly for Exercise and Sport*, 64(1), 56-68.
- Sage, G.H. (1987). The future and the profession of physical education. In J.D. Massengale (Ed.), *Trends toward the future in physical education* (pp. 9-23). Champaign, Illinois: Human Kinetics Publishers.
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57, 1-22.
- Sperber, M. (1990). *College sports inc.: The athletic department vs the university*. New York, New York: Henry Holt and Company.
- Starkes, J.L. (1987). Skill in field hockey: The nature of the cognitive advantage. *Journal of Sport Psychology*, 9, 146-160.
- Taggart, A.C. (1988). The systematic development of teaching skills: A sequence of planned pedagogical experiences. *Journal of Teaching in Physical Education*, 8(1), 73-86.
- Templin, T.J. (1987). Some considerations for teaching physical education in the future. In J.D. Massengale (Ed.), *Trends toward the future in physical education* (pp. 51-67). Champaign, Illinois: Human Kinetics Publishers.
- Tinning, R.I. (1988). Student teaching and the pedagogy of necessity. *Journal of Teaching in Physical Education*, 7, 82-89.
- Tulving, E. (1985). How many memory systems are there? *American Psychologist*, 40(4), 385-398.
- van Holst, A. (1992). QDPE: Voices from the trenches. *CAHPER Journal*, 58(4), 23-26.
- Wilson, J. (1993a). How to set an example. *CAHPER Journal*, 59(2), 21.
- Wilson, J. (1993b). Let's set an example. *CAHPER Journal*, 59(1), 41.
- Ziegler, E.F. (1993). Jacks-of-all-trades and masters of none? *CAHPER Journal*, 59(2), 36.