

The Many Faces of Integrated Physical Education

JUDITH H. PLACEK MARY O'SULLIVAN

The concept of an integrated curriculum in the schools, while appearing in the educational literature since the early twentieth century, has received increased attention recently. Given the many criticisms of public education in the last decade and the increasing concern for relevance in the education of the nation's children, schools are looking for ways to address the needs of our students. Schools, and in some cases, state departments of education (McNeil & Sartorius, 1995), are demanding curricular integration. The push for integration may also be traced to the increased popularity of middle schools and their philosophy that calls for a team approach to integrating the core subjects of math, science, language arts, and social studies.

What does it mean to integrate subjects or, indeed, the entire curriculum? While different levels of integration are possible (Fogarty, 1991), a truly integrated curriculum is more than just the linking together of one or more disciplines in order to pursue a particular topic. Genuine integration is difficult because clear disciplinary identities (e.g., math, English) are not maintained, but blurred, as material is restructured and new organizing concepts and methodologies are required (Klein, 1990). Fogarty (1991) declares that integration must occur both within and across disciplines to

have a fully integrated curriculum.

What forms might be assumed by an integrated physical education curriculum in the schools? Before considering this question, we first need to ask, what is a standard or traditional curriculum that requires restructuring in order to achieve an integrated curriculum? The traditional emphasis in physical education programs is on instructing students in fundamental movement, games, sport and fitness; that is, curricula center around students learning movement skills that can be used in game and sport situations. If these traditional types of programs are used as a baseline, what would it mean to integrate physical education both within and across disciplines as Fogarty suggests? Two forms of integration seem appropriate, internal integration (within the field of physical education) and external integration (integration with other subject matter).

Internal Integration

What topics might be considered candidates to integrate from within physical education? The knowledge base in physical education has increased exponentially over the last 30 years as physical education curriculum in higher education has undergone revolutionary change. Departments in which the major focus was producing physical education teachers have expanded to offer a va-

riety of subdisciplinary courses and career path options such as sport medicine, sport psychology, and sport management. While most school physical education has not mirrored the changes in higher education, the winds of change are beginning to blow through K-12 physical education.

Examples of school physical education curricula exist today that differ quite radically from a traditional sport- and game-oriented curriculum. While a traditional curriculum often includes some cognitive and affective material (e.g., rules, regulation, norms), the major focus is on students learning to become competent players in the sport or physical activity. Examples include the multi-activity model (Siedentop, Mand, & Taggart, 1986) and sport education (Siedentop, 1994).

In an integrated curriculum, concepts, social interaction/personal development skills, or thinking skills are consciously selected and specifically taught as a significant part of the curriculum. This means that teachers make an intentional and deliberate effort to go beyond teaching students motor skills, games, sport, and fitness activities (Placek, 1996). One example of concept integration is the teaching of fitness concepts such as target heart rate, the FIT formula, and stretching principles and developing personal fitness programs based on these concepts.

Social interaction/personal development skills may be integrated in a number of ways, but two well-known models for this type of curriculum are Adventure Education (Rohnke, 1984, 1989) and Hellison's framework for teaching responsibility to self and others (Hellison, 1985, 1995).

Although physical education has claimed to teach thinking skills such as problem solving and critical thinking, these skills usually have been left to incidental learning (i.e., assuming the learning would occur because the students were involved in the activity). While the movement approach in elementary physical education (Logsdon et al., 1984) deliberately integrates skills such as problem solving within a movement context, the conscious teaching of thinking skills at the secondary level is a relative newcomer. Two examples, however, are the use of specific teaching strategies that encourage reflection (e.g., asking open-ended questions) or the inclusion of cognitive material as part of a sport unit (e.g., students learning specific game strategies). Finally, a generic model for teaching students at any level to think about the games they are learning to play is the tactical approach to learning games (Curtner-Smith, 1996; Griffin, 1996; Mitchell, 1996; Werner, Thorpe, & Bunker, 1996).

Further examples of integrated curricular material may be found in many sources. For many years, articles have appeared in *JOPERD* (Placek, 1987a, 1987b, 1987c), and the *Basic Stuff Series* offers both content (Kneer, 1981; Dodds, 1987) and specific ideas for teachers (Carr, 1987). A burgeoning textbook industry offers texts for students and teachers' editions to provide help for teachers who wish to teach an integrated curriculum (e.g., Means, Taylor, & Zanin, 1988; Spindt, Weinberg, Hennessy, Holyoak, & Monti, 1993a, 1993b, 1993c; Stokes, Moore, & Schultz, 1993).

Beane (1990) has suggested that a thematic curriculum in which

themes intersect the developmental concerns of students and social concerns faced by people in the larger world may provide the best hope of blurring subject matter boundaries and creating a true integrated curriculum. Themes such as justice (that relate to the early adolescent concern of questioning authority and the broader social concern of laws and social customs) and identities (developing a personal identity and cultural diversity) are examples of themes that might be integrated into physical education (Placek, 1992). While physical education has some examples of thematic curricula (e.g., Hoffman, Young, & Klesius, 1981), these curricula have not been widely accepted or implemented.

External Integration

Integrating physical education with other subjects such as math or social studies may be thought about in two ways. The first, integrating physical education content into other subjects, requires us to think about what physical education topics might be appropriate to link to other subject matters. The second, integration of other subjects into physical education, uses the physical education setting to teach concepts from subjects such as math, language arts, or social studies. While the topics actually taught may be similar, the distinction between the two is important to consider because in the former, the content focus will be physical education, whereas in the latter the focal point will be the other subject(s).

Physical educators have written very little about the integration of physical education topics into other subjects. The ideas of non-physical educators thus predominate and tell us a great deal about their views of physical education's possible contributions to other subjects. Many of the ideas portray a view of physical education as consisting of games, dance, and sport activities; thus integrative opportunities are fairly narrow. For example, two favorite suggestions are teaching games and

dances of other time periods or cultures (e.g., colonial America) in social studies, or reading and writing about sports topics in language arts. On the other hand, some suggestions stretch the imagination. While it may be laudable that curriculum writers find physical education worthy of inclusion in subjects such as environmental education, building construction, and pottery, lack of knowledge about physical education goals is very obvious. For example, physical education's contribution to the pottery unit is the physical manipulation of the clay (Counts, 1976)!

Physical educators have written a great deal about ways physical education can help students learn material from other subjects. The writers suggest that topics from language arts, math, science, geography, history, social studies, art, health, music, and biology can be taught in physical education classes. Many of the ideas take the concepts from the other subjects and try to apply them to a traditional physical education curriculum. For example, math concepts may be learned in a fitness-focused unit. Science concepts such as flight trajectories can be taught in archery and Newton's Laws of Motion can be demonstrated in gymnastics. The most popular suggestion for social studies is familiar, teaching games and dances from special holidays, other time periods, or cultures.

Many of the ideas do not seem truly integrative, that is requiring a real restructuring of curricula, but forced fits or add-ons. That is, isolated content ideas are tacked onto a framework that is not really integrative or physical education content may not really fit into the integrated curriculum (e.g., pottery), but writers feel the need to include it anyway.

Implications of an Integrated Curriculum for Teachers and Schools

Given that integrative curricula are different than curricula typically taught in schools, what are the impli-

cations for adoption of these models in schools? What are the potential benefits and problems of adopting an integrated curriculum, whether internally or externally integrated? Placek (1995) gathered responses from a group of elementary and secondary teachers who attended a workshop on integration and were asked to write down their perceptions of advantages and problems of initiating an integrated curriculum. The teachers listed the following advantages: (1) students benefit by increased learning, (2) students learn that physical education and other subjects are linked, (3) physical education benefits as it is seen as not just "playing" but a real subject, and (4) teachers benefit through opportunities for team teaching. The potential problems that the teachers listed were: (1) reluctance to change by teachers and administrators, (2) student resistance to an integrated curriculum, (3) reduction in time for actual movement, (4) need for additional teacher knowledge, (5) time needed by teachers to develop new curriculum, and (6) costs of new materials (especially for textbooks, as these have not been used in the past).

While the workshop teachers' ideas were based on anticipated benefits and problems of an integrated curricula, two examples of school and university personnel working toward such a curricula confirm these teachers' perceptions of the complexities involved in developing and implementing an integrated curricula. Working collaboratively, three high school teachers, a teacher educator, and two graduate students, reconceptualized physical education in three high schools (O'Sullivan, Kinchin, Kellum, Dunaway, & Dixon, 1996). They developed, implemented, and evaluated an integrated Sport Studies unit where high school students reflected on their own physical activity biographies, reviewed and critiqued the sport culture of their high school, and addressed the role of sport in the larger society. Their experience con-

firmed many of the issues raised by the teachers in the workshop. This type of curricular effort takes enormous energy from teachers in the face of some significant resistance from students.

Another example of the complexities in developing an integrated curriculum is the experience of Beechcroft High School in Columbus, Ohio. The school administrators, faculty, and staff have spent considerable time rethinking how they can better educate their students in ways that make schooling, in general, and physical education, in particular, more meaningful and challenging. The initiative at the school level is called "Adventure-Based Learning, Career Exploration & Education" and is focused on three goals:

- **Adventure-Based Learning:** students' development of critical thinking, problem solving, risk, trust, and cooperation in classroom and physical education settings
- **Career Exploration:** exploration of careers in health, sport, recreation, and allied medical fields with courses in sport nutrition, personal fitness, sports photography, psychology, and sport management
- **Education:** establishment of proficiency readiness groups, tutorial study halls, cooperative learning, group guidance to increase students' achievement and graduation rates.

Beechcroft's health and physical education component of this school-wide curriculum is an example of both internal integration of subdisciplinary content within physical education and external integration with teachers in health, biological sciences, business, and the school nurse. The curriculum initiative is concerned with helping students gain knowledge and skills in the ever expanding fields of health, fitness, and recreation that will help them accept and carry out the roles and responsibilities demanded of them in school, in college, and in life (Beechcroft High School, n.d.). Integration of Adventure Education concepts of problem solving, risk, trust, and cooperation unifies this pro-

gram emphasis with the rest of the Beechcroft High School Program. The diversity of faculty interests and agendas proved a major challenge in providing the school the sustained and substantive assistance it sought. These examples show that while development of integrated curricula can be accomplished, the cost in terms of time and effort for both school and university personnel can be high.

Implications for Teacher Educators and Physical Education Units

The increased specialization in our respective schools and departments of physical education at the university makes it difficult to help teachers who are trying to challenge the traditional boundaries of high school physical education curricula. While at some basic level university faculty all are involved (health, recreation, and exercise science faculty) in educating physical activity professionals who service children, youth, and adults in a variety of settings, too often faculty have no shared research interests and undergraduate exercise science and physical education majors have little or no coursework in common. Because of this fragmentation, it may take outside agencies or individual schools or school districts to pressure faculty in higher education to provide more integrated professional preparation that can prepare teachers to teach the kind of integrated curricula addressed in this article. Preparing physical educators who know how to design and teach an integrative curricula to their students demands that teacher educators and physical education faculty be able to do the following:

- Work with other subdisciplinary specialists or become familiar with basic content (a monumental task) so that we can help prospective teachers learn the necessary content to teach this material
- Help prospective teachers develop pedagogical content knowledge to provide integrated curricular experiences to pupils that are mean-

ingful and challenging

- Redesign professional preparation programs to ensure this type of preparation is provided
- Integrate interdisciplinary coursework in "curriculum" coursework in the major
- Develop model curriculum in nearby schools for observation and practice opportunities for prospective teachers
- Encourage interdisciplinary colleagues to focus on the challenges of K-12 physical education. Teacher educators cannot and should not be solely responsible for the professional preparation of teachers if this type of curricular integration in schools is to succeed.

Why Bother?

To what might we attribute the growing interest by teachers and publishing companies in subject matter integration involving physical education? Is the interest in integration at the K-12 level a way to establish credibility in public schools for our subject matter? Are integrated curricula viewed as opportunities for physical education to connect with the lives of children and youth today? Do we have any exemplars of this curricular effort? Do we know what goals are set for these units and the experiences of teachers and students who carry out such work? What knowledge and skills emerge from a specific integrated curriculum? What kinds of assessments make sense for this type of curriculum? How would preservice majors think about and react to a physical education program organized in this way? Research on these questions is scarce and mixed.

How might teachers and teacher educators think about and react to the possibilities for more integrated physical education programs for children and youth? We have evidence that teachers have taken up the challenge to think differently about their subject matter and teachers and students have benefited from these efforts. Rovigno's (1995) work suggests that preservice majors' ideologies about teaching physical educa-

tion can be changed though it is a long and slow process. The question remains: Do we believe integrative physical education models as described in this article to be the content of physical education and if so are we prepared to take on the challenge and change the way we do teacher education to reflect those beliefs? The struggle with these issues will require extended conversations by teacher educators and their disciplinary colleagues about the role of physical education in the schools and the role of faculty (teacher educators and non-teacher educators, alike) in the education of prospective teachers for tomorrow's schools.

References

- Beane, J. (1990). *A middle school curriculum: From rhetoric to reality*. Columbus, OH: National Middle School Association.
- Beechcroft High School. (n.d.). *Adventure based learning, career exploration and training and education (ACE)*. Proposal submitted to Columbus School Board, Columbus, OH.
- Carr, N. J. (Ed.). (1987). *Basic stuff series II* (2nd ed.). Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance.
- Counts, R. (1976). *Pottery*. Georgia: Walker County Board of Education. (ERIC Document Reproduction Service No. ED 132 269)
- Curtner-Smith, M. D. (1996). Teaching games for understanding: Using games invention with elementary children. *JOPERD*, 67(3), 33-37.
- Dodds, P. (Ed.). (1987). *Basic stuff series I* (2nd ed.). Reston VA: American Alliance for Health, Physical Education, Recreation and Dance.
- Fogarty, R. (1991). *The mindful school: How to integrate the curricula*. Palatine, IL: Skylight Publishing.
- Griffin, L. L. (1996). Improving net/wall game performance. *JOPERD*, 67(2), 34-37.
- Hellison, D. (1985). *Goals and strategies for teaching physical education*. Champaign, IL: Human Kinetics.
- Hellison, D. (1995). *Teaching responsibility through physical activity*. Champaign, IL: Human Kinetics.
- Hoffman, H. A., Young, J., & Klesius, S. T. (1981). *Meaningful movement for children*. Boston: Allyn & Bacon.
- Klein, J. T. (1990). *Interdisciplinarity: History, theory, and practice*. Detroit: Wayne State University Press.
- Kneer, M. E. (Ed.). (1981). *Basic stuff series I*. Reston VA: American Alliance for Health, Physical Education, Recreation and Dance.
- Logsdon, B. J., Barrett, K. R., Ammons, M., Broer, M. R., Halverson, L. W., McGee, M., & Robertson, M. A. (1984). *Physical education for children* (2nd ed.). Philadelphia: Lea & Febiger.
- McNeil, A., & Sartorius, S. (1995, October). *Montana health enhancement: An interdisciplinary model*. Paper presented at the national conference of Focus on Teacher Education Visions and Ventures across the Career Span, Morgantown, WV.
- Means, C., Taylor, B., & Zanin, E. (1988). *The new physical education and me!* Winston-Salem, NC: Hunter.
- Mitchell, S. A. (1996). Improving invasion game performance. *JOPERD*, 67(2), 30-33.
- O'Sullivan, M., Kinchin, G., Kellum, S., Dunaway, S., & Dixon, S. (1996, April). *Thinking differently about high school physical education*. Paper presented at the national convention of the American Alliance for Health, Physical Education, Recreation and Dance, Atlanta, GA.
- Placek, J. H. (1987a). Annotated bibliography grades K-3. In E. S. Bressan (Ed.), *Basic stuff in action grades K-3* (pp. 121-123). Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance.
- Placek, J. H. (1987b). Annotated bibliography grades 4-8. In L. T. Lambert & R. T. Trimble (Eds.), *Basic stuff in action grades 4-8* (pp. 180-183). Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance.
- Placek, J. H. (1987c). Annotated bibliography grades 9-12. In M. E. Kneer & H. M. Heitmann (Eds.), *Basic stuff in action grades 9-12* (pp. 143-145). Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance.

- Placek, J. H. (1992). Rethinking middleschool physical education curriculum: An integrated, thematic approach. *Quest*, 44, 330-341.
- Placek, J. H. (1995, November). *Integration as a curriculum model in physical education*. Workshop presented at the PACT/PAPT Annual Teachers Conference, Montreal, Quebec.
- Placek, J. H. (1996). Integration as a curriculum model in physical education: Possibilities and problems. In S. Silverman & C. Ennis (Eds.), *Student learning in physical education: Applying research to enhance instruction* (pp. 287-311). Champaign, IL: Human Kinetics.
- Rovegno, I. (1995). *The development of pedagogical content knowledge*. Paper presented at the national conference of Focus on Teacher Education Visions and Ventures Across the Career Span, Morgantown, WV.
- Rohnke, K. (1984). *Silver bullets: A guide to initiative problems, adventure games, and trust activities*. Hamilton, MA: Project Adventure.
- Rohnke, K. (1989). *Cowstails and cobras II: A guide to games, initiatives, ropes courses, & adventure curriculum*. Dubuque, IA: Kendall/Hunt.
- Siedentop, D. (1994). *Sport education*. Champaign, IL: Human Kinetics.
- Siedentop, D., Mand, C., & Taggart, A. (1986). *Physical education teaching and curriculum strategies for grades 5-12*. Palo Alto, CA: Mayfield.
- Spindt, G. B., Weinberg, G., Hennessy, B., Holyoak, C., & Monti, W. H. (1993a). *Moving as a team*. Dubuque, IA: Kendall/Hunt.
- Spindt, G. B., Weinberg, G., Hennessy, B., Holyoak, C., & Monti, W. H. (1993b). *Moving with confidence*. Dubuque, IA: Kendall/Hunt.
- Spindt, G. B., Weinberg, G., Hennessy, B., Holyoak, C., & Monti, W. H. (1993c). *Moving with skill*. Dubuque, IA: Kendall/Hunt.
- Stokes, R., Moore, C., & Schultz, S. L. (1993). *Personal fitness and you*. Winston-Salem, NC: Hunter Textbooks.
- Werner, P., Thorpe, R., & Bunker, D. (1996). Teaching games for understanding: Evolution of a model. *JOPERD*, 67(1), 28-33.

Judith H. Placek is an associate professor in the Physical Education Teacher Education Program, School of Education, at the University of Massachusetts, Amherst, MA 01003. Mary O'Sullivan is a professor in the School of Health, Physical Education, and Recreation at Ohio State University, Columbus, OH 43210.

Teacher Education Programs— Continued from page 19

programs that specialize in preparing students for more specific contexts—probably yes—but this will require the licensing and hiring practices of most schools to change, which is not likely in the near future.

The usual approach to curriculum that is left at a sequence of courses, even if the concepts within the course are given many practical examples, will probably not be effective in doing what is needed. Programs should be able to trace the development of important ideas throughout their curriculum and be able to identify the level to which the concept is developed as it is threaded (Fogarty, 1991) through the program. For obvious reasons, programs in which faculty share a knowledge base and language to talk about teaching and learning how to be a teacher are likely to be more successful. This kind of attention to detail takes time to develop and time to implement. It takes a group of professionals sitting down and carefully working through a program together so that the responsi-

bilities of different components of the program are clear. Mostly it takes time.

References

- Chi, M., Glaser, R., & Farr, M. (1988). *The nature of expertise*. Hillsdale, NJ: Erlbaum.
- Ennis, C., Mueller, L., & Zhu, W. (1991). Description of knowledge structures within a concept based curriculum framework. *Research Quarterly for Exercise and Sport*, 62, 309-318.
- Fogarty, R. (1991). *The mindful school: How to integrate curricula*. Palatine, IL: Skylight.
- Graber, K. (1995). The influence of teacher education programs on the beliefs of student teachers: General pedagogical knowledge, pedagogical content knowledge, and teacher education course work. *Journal of Teaching in Physical Education*, 14, 157-178.
- Graham, G., Hopple, C., Manross, M., & Sitzman, T. (1993). Novice and experienced children's physical education teachers: Insights into their situational decision making. *Journal of Teaching in Physical Education*, 12, 197-214.
- Graham, K., French, K., & Woods, A. (1993). Observing and interpreting teaching-learning processes: Novice PETE students, experienced PETE students, and expert teacher educators. *Journal of Teaching in Physical Education*, 13, 46-61.
- Greene, M. (1975). Curriculum and consciousness. In W. Pinar (Ed.), *Curriculum theorizing: The reconceptualists* (pp. 299-317). Berkeley, CA: McCutchan.
- Griffey, D., & Housner, L. (1991). Differences between experienced teachers and inexperienced teachers' planning decisions, interactions, student engagement and instructional climate. *Research Quarterly for Exercise and Sport*, 62, 196-204.
- Rink, J., French, K., Lee, A., Solmon, M., & Lynn, S. (1994). A comparison of pedagogical knowledge structures of pre-service students and teacher educators at two institutions. *Journal of Teaching in Physical Education*, 13, 140-162.
- Stroot, S., & Oslin, J. (1993). Use of instructional statements by preservice teachers for overhand throwing performance in children. *Journal of Teaching in Physical Education*, 13, 24-45.

Judith E. Rink is a professor in the Department of Physical Education at the University of South Carolina, Columbia, SC 29208.