The Nature of Knowledge in Sport Pedagogy: A Reply to Schempp

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As always, and as one as come to expect from a scholar of his distinction, Dr. Schempp presented in eloquent fashion an overview of the nature of knowledge in sport pedagogy. Our knowledge base has grown tremendously over the past 15 years. At this point, adoption of a framework to help us view the nature of our knowledge is greatly needed, for such a framework can help us organize the research we have completed, locate areas where information is lacking, recognize where our efforts should be directed, identify priorities for future endeavors, and help us formulate an overview of our knowledge base.

First, Schempp is to be applauded for recognizing that the dynamic and multidimensional nature of knowledge lends itself to many different approaches to studying it and that any one system for classifying the dimensions of knowledge would be incomplete. Through this recognition, Schempp avoids precipitating a debate as to whether this is the one singular correct way, while inviting scholars to discuss the merits of this approach and to explore other frameworks as a means to understanding the nature of knowledge in this field.

Further, Schempp has done an excellent job in extending Shulman's categories for a knowledge base for teaching to the realm of sport pedagogy. Each category is defined, additional supporting information provided, examples of research from sport pedagogy pertaining to the category are presented, and areas for future research are delineated. It is clear that our knowledge base is compatible with this framework, and the framework offers us assistance in understanding the nature of knowledge of our knowledge.

Yet, as Schempp so forthrightly acknowledged, Shulman is not without his critics and limitations. As Schempp points out, one limitation is that it focuses exclusively on what teachers know about teaching and is formed from the study of teachers in action; it excludes all other legitimate knowledge. I concur that this is a serious limitation and support

Schempp's suggestion that Shulman's work cannot be considered the entire constellation of knowledge or a complete theory for sport pedagogy. Moreover, I suggest that since we are still coming to terms with our conceptions of what constitutes effective teaching, perhaps some of our earlier research that we have completed and that now comprises part of this knowledge base needs to be closely examined. A question that comes to mind at this time is, *«How good is our knowledge»*? If our knowledge base rests on the study of teachers in action, by what criteria have we and should we choose teachers to study?

Perhaps another limitation is that Shulman's model is content-driven, relating content to the teaching process. Maybe some of you share my unease about this; perhaps many of you do not. In my own mind, I am still not sure that we have fully come to terms as to what actually comprises the content of physical education. There seems to be a never-ending debate about what we should be doing. While we seem to be moving toward some consensus, will we ever be able to clearly delineate our content area? Moreover, because Shulman's model is anchored in content, I believe that we need to ask ourselves the question, *«Is there anything sufficiently unique about our content, about the discipline of human movement, that requires redefinition of Shulman's categories or the formation of additional categories to completely capture the essence of our knowledge base?»* Have we sufficiently weighed this question before embracing Shulman's framework?

Sockett (1987) criticizes Shulman's limited attention to context. Context is powerful; «actual context is crucial» (Sockett, 1987, p. 209). Practice is rooted in context, and teachers make complex judgments in applying the knowledge base to their actual practice. As researchers, we must be sensitive to the actual context in which teachers work. Sockett cautions against judging teachers against some ideal of teaching, rather than what is possible or «what is best in the circumstances» (p. 209). At the heart of teaching, Sockett writes

«... are not items of knowledge as discrete measurable techniques, but judgment, which is itself a form of knowledge. Tempered by growing practical understanding, that judgment emerges as wisdom.» (p. 210).

Further, Sockett takes Shulman to task for writing about the «typical» high school. Sockett asks: *«... is there any such thing which we would find in Palo Alto, North Carolina, or Chicago's South Side? Do these immensely diverse situations not make radically different demands on teachers' skills, knowledge, attitudes, sensitivity, and judgment? To be sure, we are provided with what must seem to most teacher-educators a rather obvious list of things a teacher ought to be able to do. The problem is that they will mean quite different things and emerge as emerge as differing practices in varying contexts»* (p. 210).

Context serves as a mediating factor, whether directly or indirectly, in most things teachers do. It appears then that we must examine carefully the context in which teachers were studied when integrating what we have learned into our knowledge base. Because quite a bit of what comprises our knowledge base was learned through systematic observation, van der Mars (1989) statement about contextual effects associated with this approach warrants careful consideration. He stated, *«... the findings obtained through systematic observation are always contextual. The message they may provide about teaching performance needs to be considered in light of the situation in which they were observed.»* (p. 9).

Like Schempp, I too completed my doctorate under the advisement of John Cheffers at Boston University and was schooled in the use of systematic observation to study teaching. Training in that tradition leads me to apply some of which I have learned about observation systems to Shulman's categories. As researchers, we have developed some fairly standard expectations relative to the construction and use of categories in systematic observation instruments. The list of «shoulds» for systematic observation instrument categories includes a descriptive name, a general description as well as a description of the critical aspects of behavior, category discreteness, typical examples of the behavior, and guidelines for dealing with questionable and/or difficult occurrences and nonoccurrences of the behavior. When these «shoulds» are applied to Shulman's categories for knowledge, several categories fall short of these expectations. Unfortunately, the category that appears to deviate the furthest from these expectations is the category that seems to have captured the interest of many sport pedagogists: pedagogical content knowledge.

To me, the name of the category does little to convey the essence of the knowledge it seeks to encapture. Names such as «professional judgment» or «wisdom» perhaps better reflect the true nature of the knowledge contained within. Moreover, the category does not appear to be sufficiently discrete. Schempp suggested that the definition *«appears to be composed of bits and pieces from other categories»* (p. 11); Shulman (1987) describes pedagogical content knowledge as that *«special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding»* (p. 8).

Many researchers perceive pedagogical content knowledge as the key to understanding the knowledge base of teaching, for it reflects the ability of teachers to transform content knowledge to pedagogical strategies and instructional forms that are effective and responsive to individual differences in learners, environmental contexts, and intended outcomes. If it is the key, then how does this category of knowledge relate to the other categories? That Shulman fails to identify the relationship between this category and the various categories is another shortcoming. No relationship between categories, such as the relationship between general pedagogical knowledge and pedagogical content knowledge, is given. Given the multidimensional and dynamic nature of knowledge and the complexity of teaching and learning in the schools, we could probably safely that the relationship would be highly interactive.

If indeed the relationship between the seven categories of knowledge is interactive, not only does this have implications for research and the types of questions we ask, but for our future directions. Because of the interactive effect, lack of knowledge in one area may contribute to misleading results and misunderstanding in other knowledge areas. Thus we must make sure that deficiencies in any areas of knowledge are addressed.

Schempp, in the opening paragraphs of his paper, suggests that the difference between a body of facts and a body of knowledge lie in their source of value. Facts come from the methods of science and ... *«are valued for the means that produce them, not the ends that they serve. Knowledge is valued for what it can do, not necessarily from where it came»* (p. 2). Our research efforts have amassed a tremendous amount of facts about sport pedagogy and teaching physical education and we are now contemplating

the nature of knowledge that we possess. But, are our efforts valued by our primary client groups - - teachers and teacher educators? In short, do teacher educators and teachers ascribe any value to the facts of sport pedagogy or bestow upon them the distinction of knowledge?

Metzler (1992), in a plea to bring the teaching act back to sport pedagogy, simply and directly states, «research on sport pedagogy gets no discernible recognition from teachers and makes even less of an impact on how they instruct» (p. 155). Although we know more about effective teaching than ever before, Metzler states that:*«...we have yet to generale much knowledge about how to teach a certain content to a certain group of learners consistently well. Ironically, learning to teach a certain content to a certain group of learners is what most teachers want from research.»* (p. 155).

Locke (1990) in an article examining why motor learning research is ignored by teachers of sport and physical education advances the «naughty theory»; in short, teachers ignore motor learning research findings because they find them irrelevant to their work and lacking direct implications for practice. Might teachers perceive the findings of sport pedagogy in a similar light? Locke suggest, *«If motor learning has something to offer teachers, it has to offer it for teachers as they are, and for the work that they do»* (p. 150). Is not the same true for sport pedagogy?

As O'Sullivan, Siedentop, and Locke (1992) enjoin, «We must be more than simply passionate and articulate (p. 279). When teachers and coaches look for us for direction, when they ask *«What is it that we should want to accomplish and what will work to get it done?», we have to answer»* (O'Sullivan et al., 1992, p. 279). Only then will come recognition of the worth and value of knowledge of sport pedagogy by teachers. «Only then will come the sweet sound of applause» (O'Sullivan et al., 1992, p. 279).

Shulman's framework offers a means to help us organize the expanding and evolving knowledge base of sport pedagogy. Perhaps we should now consider another of Schempp's questions about knowledge, specifically «What do you do with it, once your find it?» Lewis Carroll's Alice's Adventure in Wonderland (1865/1966) contains an interaction between a girl named Alice and a Cheshire Cat that offers some advice. Alice has

come to a fork in the road and is confused about what to do. Spying the Cheshire Cat in the tree she asks:

«Would you tell me, please, which way I ought to go from here?
«That depends a good deal on where you wand to get to,» said the Cat.
«I don't care much where - - - .» said Alice.
«Then it doesn't matter which way you go,» said the Cat. (p. 89).

Now is time to establish an international agenda for research on sport pedagogy so as to better marshal our efforts to achieve our goals. Shulman's framework offers us a means of unifying our knowledge base in sport pedagogy. However, to obtain an accurate representation of the knowledge we have gathered, requires that we examine all our research findings, scrutinize them for «goodness of fit», and place them in the appropriate categories. Once this undertaking is completed, areas for further research can be identified and priorities for research established. As Schempp suggests, there are several paradigms that can be used in our efforts to further expand our knowledge base, each of which «offers a different perspective and unique avenue in understanding the teaching and learning of human movement». In order to ensure that essential gaps in our knowledge base are filled, perhaps we may envision a commitment to professional service, where researchers, based on their skills and interests, would be asked to undertake a specific area of research for the «greater good». To ensure that our knowledge base continues to advance, we must, as Metzler (1992) suggests, incorporate planned, systematic variation into our research agendas.

We must also move from the conceptual analysis of knowledge based on Shulman's framework to generating various forms of knowledge. Shulman (1986) outlines three forms of teacher knowledge: propositional knowledge, case knowledge, and strategic knowledge. We need to examine our research and explore its implications for practice, expressing these implications in the form of propositional knowledge. Specifically, we need to generate a series of principles, maxims and norms that will be helpful to teacher educators and teachers in applying knowledge within their own personal contexts and according to their intended outcomes.

Such forms would, I believe, facilitate the transformation of knowledge into practice and favorably impact on programs in the field.

Helping teacher educators and teachers transform what we know about effective teaching into practice is critical if we are to improve the instruction of sport and human movement. Yet as Metzler (1992) points out, we have little research on transformation of knowledge related to effective teaching into practice. We need to develop an understanding of the process of transformation, identify barriers to transformation and ways to overcome them, if the potential of sport pedagogy to improve practice is to be realized.

Furthermore, along this avenue, we must increase our efforts to facilitate the retrieval and use of knowledge by our client groups - - teacher educators and teachers - - so that ultimately those who participate in sport and physical activity will be more enriched by the experience. It is now time to collect our knowledge into the Handbook of Research on Sport Pedagogy. Just as the many editions of the Handbook of Research on Teaching has served educators so well, a similar effort within the realm of sport pedagogy would likely be well received. However, while accurately representing the accumulated knowledge of the field, it is equally important that attention be given to relating that knowledge in a manner that is easily understood, to suggesting implications for practice, and to identifying future directions for research. Before the field of knowledge gets much bigger, we must act to bring together in a cogent fashion that which our efforts have achieved. Locke suggested that we deal with the problem of retrieval in 1977, while it was small enough for it to be manageable. While we have developed some mechanisms for retrieving and communicating our knowledge, I believe that now is the time for the Handbook of Research on Sport Pedagogy before some of what we have learned becomes overlooked or lost to scholars and practitioners alike. Noted philosopher, essayist, and statesperson of the late 1600s, Francis Bacon said «Knowledge, by itself, is power». For knowledge to be power, to be powerful, to be empowering, it must be capable of being accessed and easily understood by those who seek to use it.

As a community of scholars, we can take pride in what we have accomplished during the past 15 years and the body of knowledge we

have constructed. This knowledge has the potential to change how we prepare instructors of sport and physical activity and the manner in which teachers instruct our children and youths. Whether that potential is fulfilled, however, rests heavily on the willingness of researchers to keep in mind human interests in their search for facts and a central commitment to teachers and their students in their quest for knowledge.

REFERENCES

Carroll, L. (1965). *Alice's Adventures in Wonderland.* London.

Grossman, P. (1990). *The making of a teacher: Teacher knowledge and teacher education.* New York: Teachers College Press.

Locke, L.F. (1977). Research on teaching physical education: New hope for a dismal science. *Quest,* 28, 2-16.

Locke, L.F. (1990). Why motor learning is ignored: A case of ducks, naughty theories, and unrequited love. *Quest,* 42, 134-142.

Metzler, M.W. (1992). Bring the teaching act back into sport pedagogy. *Journal of Teaching in Physical Education,* 11, 150-160.

O'Sullivan, M., Sidentop, D., & Locke, L.F. (1993). Toward collegiality: Competing viewpoints among teacher educators. *Quest,* 266-280.

Schempp, P.G. (July, 1993). *The nature of knowledge in sport pedagogy.* Paper presented at the World University Games, Buffalo, N.Y.

Shulman, L.S. (1986). Those who understand: Knowledge growth in teaching. *Education Researcher,* 57 (2), 4-14.

Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review,* 57, 1-22.

Sockett, H. (1987). Has Shulman got the strategy right? *Harvard Educational Review,* 57, 208-219.

Van der Mars, H. (1989). Systematic observation: An introduction. In P. W. Darst, D.B. Zakrajsek, & V.H. Mancini (Eds.), *Analyzing physical education and sport instruction* (pp. 3-18). Champaign, IL: Human Kinetics.