

Relational Efficacy Beliefs in physical Activity Classes: Goals , Learning and Student Achievement

In physical Education

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Abstract: identifying the factors that influence teacher beliefs about teaching children with disabilities is important for the success of inclusive education. This article explores the relationship between teachers' role, self-efficacy, attitudes towards disabled people, teaching experience and training on teachers' attributions for children with disabilities .the article examine the moderating effect of teachers' expectancies and general sense of efficacy on students' achievement.

Teaching is becoming an unnerving experience. Teachers are unsure of themselves and uncertain of their roles. Many are dreadfully disoriented ..take recourse in caricaturing the forces of change, defying the bricks through the window, growing steadily more unhappy. Others despair or take recourse in abdication of responsibility , deluding themselves with the thought that they are heeding the popular message and contributing, somehow, to an education that by some mysterious means will be "better" .Physical education as a school subject has been under-going a long-deserved curricular reform. A " new physical education " which emphasizes the development of a healthy, physically active lifestyle rather than the study of traditional team sports has emerged as a curriculum model in many schools [19] thus, it is important to strengthen school physical education programs to better educate our children about physical activity and its health benefits.

Achieving the goal of helping children develop a healthful , physically active lifestyle relies on the extent to which motivation is enhanced during their engagement in physical activities.as an organized education experience, physical education is considered a viable avenue that leads to the development for a physically active lifestyle for children.physical education may be the only opportunity for all school-aged children to learn about the comprehensive health benefits of physical activity and the necessary motor and behavior management skills to effectively participate in a variety of sports, physical activities ,and exercise. Unfortunately ,most adolescents choose not to take physical education classes during their high school years after they have met minimal physical education credit requirement for graduation ,usually a half or one credit in most high schools [7].Enrollment in physical education in secondary schools decreased an average 30% annually from 1988 to 1996 (National Center for Education Statistics [NCES], 1996), and only 19% of adolescents took physical education classes regularly beyond the graduation requirement [4]. If choice is considered an indicator of motivation , it is apparent that students have a motivation problem regarding physical education.

To find effective ways to motivate young students to engage in regular physical activity ,many intervention studies have been conducted by physiologists and behavioral scientist in the last decade . However ,despite various motivation approaches adopted and an emphasis

on providing scientific information about the benefits of physical activities and the health hazards of a secondary life style, less than half of the participants in the intervention studies demonstrated strong motivation to continue their physical activity programs [16]. It has become apparent that without appropriate motivation strategies, it can be difficult for teachers to engage students in developing a physically active lifestyle. Researchers addressed the student motivation issue by reviewing and critiquing related research findings in physical education and their purpose was twofold. First, they summarized findings from research on two major achievement motivation constructs in physical education: achievement goals and interests. Second, they attempted to interpret the findings in relation to student knowledge and skills in physical education. The focus in the researches on physical education rather than on sports. Although sports can be a central form of content in physical education, physical education and sports are distinctively different regarding goals, expected outcomes, teaching and learning strategies, and education functions. It was found, that sports is a type of organized physical activity whose goal is to engage participants in formal competition that takes place in interscholastic and other sporting arenas. Physical education, conversely, is a subject designed to help the learner become physically educated by learning necessary information and skills about physical activity. In sports, mastering specialized motor skills is the goal or the end of learning, whereas in physical education, practicing motor skills can be a means by which students learn concepts and behavior-management strategies as well as develop motor skill proficiency.

Achievement Goals as Motivators in Learning

Researchers have adopted the achievement goal theory as a major theoretical framework for studying learner motivation sources in physical education. According to education researches goals are defined, as why students want to achieve what they achieve [18]. In other words, goals are conceptualized as underlying purposes that a learner may adopt in guiding his or her learning behavior. Researchers investigated the motivational function of learner goal orientation. Learners with the task-goal orientation often are concerned about completing tasks and developing competence in the content domain, whereas learners with the ego-goal orientation usually are concerned about demonstrating competence relative to their peers. Researchers who adopt the instructional climate conceptualization attempt to address the extent to which instructional climate in the gymnasium is structured to enhance learning content (mastery climate) and/or demonstrate competence (performance climate). A mastery climate refers to an instructional environment that emphasizes competence development and task completion. A performance climate refers to an instructional environment that emphasizes the demonstration of superior ability through interpersonal comparisons. The task and ego goal are used as technical terms to describe the goal construct for the disposition conceptualization, and mastery and performance goal to describe the goal construct for instructional climate conceptualization [10].

In general, research findings have shown that physical education learners with a high task-oriented goal (a) perceive success and failure in learning as associated with effort, (b) report a high likelihood to select more challenging learning tasks, and (c) frequently enjoy learning experiences. Learners with a high ego orientation tend to avoid difficult learning tasks and attribute success or failure to genetic ability. They are more likely to be motivated when

their performance is superior rather than inferior to that of their peers. On the basis of student self-report of goal-orientation and motivation levels, those findings have been observed among learners in elementary schools, secondary schools and colleges [15]. Conceptually, task and ego goals are not mutually exclusive. It is possible that some students may possess both goals.

Studies on instructional climate have revealed that mastery involvement is more likely than performance involvement to nurture student intrinsic motivation. Learners in a mastery goal-centered climate are more likely than those in a performance goal-centered climate to choose challenging tasks in practice, perceive themselves as having high intrinsic motivation and report a high level of perceived satisfaction[17].

Effect of Achievement Goals on Learning

Most of the studies in physical education have reported that the task-goal orientation and the mastery instructional climate are predictive of intrinsic motivation. Only in a few studies, however, were learners' actual learning behavior and outcomes measured in an attempt to determine the link between achievement goals and learning outcome. Results from studies show that achievement goals may have limited direct impact on learning outcomes in physical education. Students with different goal orientations viewed several videotaped demonstrations of a correctly performed tennis forehand stroke, then were assessed on the accuracy of visual recognition and verbal recall of key characteristics of the skill. The results of a canonical correlation indicated no correlation between goal orientations and the recognition and recall outcomes. The researchers cautioned that goal orientations may be of little importance in the initial phase (visualization of a skill sequence) of learning a motor skill. Learning at this phase may not be differentiated by the achievement-goal orientations. The findings raised questions about the appropriateness of exclusively using the achievement-goal orientation theory to interpret motivated learning behavior and motivation in motor skill learning settings [3].

As conceived in the physical education content, competence-based learning goals are often coupled and implemented with a strong influence of a noncompetence goal such as enjoyment. That combination creates an instructional climate in which students like to engage in a learning process for goals unrelated to competence development. Studies observed that although physical education is a content area that students like the most, it has the lowest perceived value among students, school administrators, and teaching staff. The misconceived value of physical education may create an incoherent curricular context in which neither achievement goal is an integral part of the context because the relevance to learn the content is likely to be misunderstood by students and teachers. The misunderstanding characterized by perceived low value in the content and mixture of competence-based and noncompetence-based learning goals appears to dramatically reduce the effectiveness of achievement goals as a primary motivator for enhancing student learning in physical education[9].

Interest as Motivators in Learning

It has been assumed that interest motivates the learner to pursue the outcome of knowing [8]. Interest, which often yields pleasant emotional outcome, is frequently considered to be associated with noncompetence purposes in the learning process [13]. Development in education research, however, has helped researchers reconceptualize interest as a dichotomous framework that consists of individual and situational interest. Individual interest refers to a person's psychological disposition concerning the preference of an activity or action. Situational interest is defined as the appealing effect of an activity's characteristics on individuals [11]. Both interests have been described as a person-environment (e.g., activity, events, ideas, objects) interactive construct. Also, the interests are content specific and have cognitive and affective components. In addition, studies showed that interests are a key that underlies student motivation in all learning stages with domain specificity [1].

Research on interest in physical education has been scarce. In some studies, it is assessed as a liking for particular physical activities. For example, one of the studies surveyed university students to determine whether they were interested in specific activity course offerings. The study found that college students were interested primarily in taking courses in an individual sport rather than in team sports [12]. Another study reported that because of social influences, male and female students can develop differentiated individual interest in physical activities [6]. At an early age, boys begin to show preferences for team sports, whereas girls begin to favor rhythmic activities. Those findings demonstrate young people's strong individual interest in physical activities but reveal little about motivational effects of interest in physical education.

Although the studies helped clarify the construct of interests in motivation research in physical education, the effects of interests in motivation research in physical education, the effects of interests on learning and the relationship between situational interests on learning and the relationship between situational interest and the learning-task design remain unknown. The latter issue may have more profound theoretical and practical implications to curriculum designers and teachers. It should not be unrealistic for one to expect that an understanding of the motivational effect of interests should guide curriculum and learning-task design to enhance student learning. Learning in physical education involves cognitive and physical effort. Learning tasks that emphasize one type of effort without the other will not help the learner acquire knowledge and skills. Cognitive demand in physical activities is critical because it leads the learner to a mind-body integrated experience that is optimal for acquiring motor skills and related knowledge. Interests, when conceptualized as a motivation construct, tap into the cognitive function of the individual. The researchers may have significant implications for teaching in physical education. First, they imply that situational interest may be influenced directly by the way in which learning tasks are designed. An effective way that teachers can motivate students may be to build motivational components into the course content, such as those that enhance situational interest. Second, teachers need to provide cognitively demanding tasks to enhance situational interest for greater student motivation.

Effects on Learning

Although the studies discussed in the previous paragraphs demonstrated promising motivational function of situational interest, little empirical evidence is available to link interests directly with motivated learning behavior and learning achievement. pedagogical significance of motivational sources apparently lies in the observable purpose of improving learning behavior. Student-learning outcomes in physical education take two basic forms. One outcome is the acquisition of knowledge and skill. That outcome usually is measured with achievement tests of motor skills and knowledge. The other outcome is physiological intensity, which produces health benefits from the physical movement in which students engage. That outcome measured in heart rate, number of steps, and /or consumed calories using various recording devices. We now know that for physical activities to be motivating, they should be situationally interesting. To accomplish that outcome, curriculum designers and teachers should emphasize cognitive demand when maintaining a high physical demand in learning tasks. We also know that although situational interest can motivate students to engage actively in the learning process, resulting in high level physiological responses (for health benefits), it may not lead students to a higher level of knowledge comprehension and skill acquisition. To improve learning achievement, educators should nurture in students a high individual interest in the subject content as a primary motivator.

Implication for Curriculum Reform

Research on achievement goals and interests has advanced our understanding of their functions as major motivators in physical education. Findings from those studies have shown repeatedly that students possess preconceived goals when they enter physical education classes. Those goals may mediate learning behaviors and outcomes. As a function of learning-task design, situational interest plays a critical role in motivating students to engage actively in learning[5]. Taken together, the findings suggest a need to reframe motivational research in physical education. As identified by pedagogical researchers and educational psychologists, the link between motivational research and curricular research is weak. The weak linkage has limited the theoretical significance and practical impact of motivation research.

Motivational research in physical education seems to be based on an assumption that has guided most classroom research. That is, physical education classes provide an unquestionable achievement setting in which the goal to be attained is clearly defined. The achievement setting is defined as a learning environment in which students are expected to reach academic excellence by increasing academic competence, mastering new knowledge and skills, and understanding meanings of life. In short, competence based goals are assumed to be central in the context. It is also assumed that students understand the context when they come to the gymnasium for physical education, although in reality, this may be a null assumption. It appears that non-competence-based goals (e.g., having fun) may be dominant in physical education. With increased awareness of the health benefits associated with physical activity and a marginalized physical education curriculum in schools, the "high need, low demand" dilemma seems to have become increasingly salient in our schools. In reality, almost all schools offer physical education as a subject, with as understanding of its vital need. Yet, the time and resources that are needed for a high-quality physical education curriculum are diminishing rapidly because of low demand. In that

context, (a) the curriculum tends to become goal-less, (b) lessons become free of learning objectives, (c) teachers teach for the achievement of noncompetence-based goals, and (c) students learn little regardless of their goals and interests [14]. The public has begun to realize the need for young generations to learn and value the knowledge and skills associated with physical activity. The companion goals present a unique challenge for motivational researchers. On the one hand, students need to engage in tasks of moderate to vigorous physiological intensity to learn knowledge and skills and to receive health benefits. On the other hand, researchers hope that the learning experiences can be enjoyable, interesting, and motivating for all students so they overcome demotivating effects often coupled with physical discomfort. For education researchers and educators, motivation is a curricular issue as well as a student psychological disposition of achievement goals or interest.

Educational psychologists and curricular researchers seem to agree that the curriculum has a powerful influence on student motivation. Researchers argued that the curriculum forms a context in which students spend most of their daily lives in school, and suggested that this context also provides a reference frame for students to define and determine the level of success in education. The curriculum, therefore, can be viewed as the mechanism that energizes students as well as influences the process of internal energizing.

To increase the motivation effect of the curriculum so that the high-need, low-demand status of physical education will change, researchers and curriculum designers should continue to search for a theoretical platform in which the curriculum is designed with built-in motivational components. In other words, motivation and content are no longer separate entities in the gymnasium as well as on schools' curriculum development drawing boards. To accomplish that goal, there are two salient implications from the research findings reviewed previously as useful guidelines. First, physical education curriculum designers should clearly define and distinguish competence-based goals and non-competence-based goals for the curriculum. A curriculum well balanced with the two types of goals may provide challenging learning tasks with enjoyable experiences through which knowledge, skill, and values needed for a healthy, physically active lifestyle can be acquired effectively. Second, individual and situational interests should be taken into account as primary motivators in learning-task design to create enjoyable and productive learning experiences that lead to the accomplishment of competence-based learning goals.

With an accumulation of knowledge, skill, and values about physical activity, individual interest should be developed in all students. Enhanced students' motivation to learn will be evident because in this curricular context, students are the owners of learning. In learning tasks developed under the traditional philosophy of "no pain, no gain", however, students are merely drilled in learning tasks.

According to achievement goal theorists, dispositional achievement goals and perceptions of the motivational climate have been found to interact and affect patterns of motivated behaviors. Generally, achievement goals reflect how individuals evaluate their personal competence in achievement settings and are either self-referent or other-referent, thus formulating two distinct goal states of involvement.

Self-efficacy and Its Relationship With Achievement Goals and Physical Activity

Self-efficacy has been fruitful in explaining students' motivation and achievement behaviors in physical education or physical activity settings. Self-efficacy is a situation-specific belief in ability. It refers to beliefs about one's capabilities of learning or performing behaviors at a situational level[2]. In physical education, those with higher self-efficacy are more likely to perform better, expend more effort on mastery tasks, and persevere longer when they encounter challenges than those with lower self-efficacy. Self-efficacy is a significant and positive predictor of middle school students' physical activity levels in physical education classes. Further, researchers indicated that self-efficacy mediated the relationships among students' expectancy-related beliefs, mastery values, outcome expectancy, and their physical activity levels in physical education classes.

Self-efficacy has also been examined in relation to achievement goals in the contexts of physical activity and physical education. Specifically, individuals with a performance orientation show a decline in self-efficacy when facing difficulty, while those with a mastery orientation maintain high self-efficacy and set challenging goals. Research evidence also shows that self-efficacy mediates the effects of achievement goals on students' academic performance.

In fact, the mediating role of self-efficacy might be understood with Vallerand's hierarchical model of motivation. This model contends that motivation and its determinants, mediators, and consequences operate at three levels: global, contextual and situational. Motivational beliefs at the situational level result from a top-down effect of beliefs at the higher level in the hierarchy. Therefore, it is logical that achievement goals and motivational climate (i.e., contextual variables) affect situational beliefs (e.g., intrinsic motivation, self-efficacy), which have subsequent effects on achievement behaviors.

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