Development of Self-Concept and Self-Efficacy: Considerations for Mainstreaming

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Humanistic goals related to the affective domain have been of considerable influence in the justification of mainstreaming. Physical educators have traditionally identified development in this domain as a salient educational outcome of physical activity and of physical education programs. Concerning handicapped children in regular physical education programs, the benefits related to development in the affective domain have been espoused and projected to be significant. However, development in the affective domain (especially as related to self-concept and self-efficacy) does not occur incidentally, but must be planned for. This article elaborates on the constructs of self-concept and self-efficacy and discusses the implications for developing or enhancing these constructs in mainstreamed handicapped children.

It is essential that physical educators determine how physical education activities can enhance the affective dimensions of students’ development. This is especially important for handicapped students mainstreamed into regular classes, since humanistic goals related to the affective domain have been used in the justification of mainstreaming (Geddes, 1976). A salient component of the affective domain is the emotional dimension. Weiss (1980, p. 9) has identified the goals of this dimension in special physical education as:

1. To enable the student to experience feelings of success and accomplishment, and
2. To enable the student to feel that he or she is an individual of worth.

These two goals relate to the ideas of self-efficacy and self-concept, respectively. Although physical educators frequently include these two goals for their curricula, realization of these goals is often taken for granted.

Self-Concept and Self-Efficacy

Self-efficacy, the conviction that one is or is not capable of successfully performing the behavior required to produce a certain outcome, affects whether or not a person will at-
tempt a certain behavior and determines the effort expended and persistence levels (Bandura, 1977). Self-concept refers to the verbal labels one uses to describe oneself, and to the positive and negative feelings accompanying these labels (Abelson & Staley, 1982). Thus, self-efficacy involves what one thinks one can do, and self-concept involves how one feels about oneself. These constructs are closely related, so that a change in one may influence a change in the other.

It is the purpose of this article to provide physical educators with a conceptual basis for understanding self-efficacy and self-concept, their interrelation, and implications for developing self-efficacy and self-concept in the integrated classroom.

Self-Concept and Handicapped Individuals

Frequently, "enhancing self-concept" is cited as a primary goal of special physical education, based on the perception that handicapped individuals have lower self-concepts than do their nonhandicapped peers. Some research studies comparing handicapped and nonhandicapped persons' self-concept are weak in design (see Kessler & Milligan, 1979), and others are contradictory in their findings. These contradictions may be understood in part by studying differences in self-concept based on the handicapping condition. The general conclusion from the literature is that at least some handicapped groups may have lower self-concepts than do nonhandicapped groups. That is, self-concept may be far more dependent on each person's unique personality than on any handicapping condition. Thus, self-concept may vary far more within handicapped groups than between groups.

Studies with learning disabled children all conclude that these children have significantly lower self-concepts than do their nonhandicapped classmates (Martinek & Karper, 1982; Rosenberg & Gaier, 1977; Sheare, 1978). Perceptually impaired first graders (Seaman, 1974) and physically handicapped campers (Dibner, 1973) were also found to have lower self-concepts than their nonhandicapped peers.

Unlike the aforementioned studies, Coleman (1983) found the self-concept of handicapped and nonhandicapped children comparable. This finding was attributed to a special education program in which similarly skilled students were placed in the same classes. Lower self-concept was found among both handicapped and nonhandicapped children who had been placed in classes containing social comparison groups of generally greater ability. Similarly, Hopper (1982) found that physically handicapped adults who were successful wheelchair athletes had high self-esteem and aspirations, qualities that are closely related to self-concept.

Social comparison theory may help explain why Coleman (1983) and Hopper (1982) found that handicapped persons did not have lower self-concepts than their nonhandicapped peers, while Martinek and Karper (1982), Sheare (1978), and others found that they did. Social comparison theory suggests that,

In the absence of objective standards of comparison, people will employ others in their environment as the bases for forming estimates of self-worth (self-concept). Also, given the choice of relatively similar or dissimilar others, similar others are more likely to be selected as a basis for social comparison. (Festinger, 1954, p. 117)

If students' self-concepts are formed in part by comparing their performance with others in the environment, then they should be placed in classes with others of similar ability. In this way, favorable comparisons can be made and positive self-concepts can be encouraged. Social comparison theory supports the philosophy that placement of han-
dicapped students in the mainstream or special education classes should be based on student ability, not on the handicapping condition.

Several studies in the literature suggest that self-concept is a dynamic construct subject to change (Ankerbrand, 1973; Schunk, 1983; Thacker, 1979). Work by Harter (1978), Kahn (1983), and Shaw, Levine, and Belfer (1982) suggests that physical fitness, motor skill, and athletic competence are key factors in determining the self-concept of young handicapped children. Such results highlight the contribution that physical education can make in developing positive or confirming negative self-concepts of handicapped persons. Specific studies in which the self-concept of handicapped individuals changed following physical education instruction are described below.

Ankerbrand (1973) found a significant correlation between improvement in bowling skills and a more positive self-concept, with physically handicapped college students showing greater improvement on measures of bowling skills, self-concept, and self-acceptance than did nonhandicapped students. Similarly, Martinek and Karper (1982) found that although handicapped children had a significantly lower self-concept than did nonhandicapped peers at the beginning, there was no significant difference in self-concept between groups after 1 year of physical education instruction. Dibner (1973) tested physically handicapped campers and found that they arrived with significantly lower self-concept than did nonhandicapped peers but showed greater gains in self-concept after the 2-week experience than did their nonhandicapped peers. These studies all suggest that mastery of new skills and experiences can enhance the self-concept of handicapped individuals. Self-efficacy theory is proposed as a basis for understanding these changes in self concept.

Self-Efficacy Theory

According to Bandura (1981), experiences arising from children’s effective interactions with their environment provide the basis for the development of a sense of efficacy. Therefore children must be given opportunities to interact effectively with their environment; they must be allowed to experience successes, accomplishments, and mastery. Yet, for those with less talent or preparation, certain practices may reinforce feelings of inefficacy (Bandura, 1981). For example, after everyone else has been picked, a child standing alone while the captains argue about who has to take him or her may have his or her feelings of inefficacy reinforced.

Perceived self-efficacy is capable of affecting behavior in the following ways:

1. Self-percepts of efficacy influence choice of activities and environmental setting;
2. People tend to avoid situations they believe exceed their capabilities but will undertake and perform activities they feel capable of handling;
3. Any factor that helps to determine one’s choice can have profound effects on the course of personal development;
4. Active engagement in activities contributes to the growth of competencies;
5. Shunning enriching activities or environments retards the development of potential and prevents the correction of negative self-concept (Bandura, 1981, p. 2).

Behavior is influenced by both outcome expectancies and personal efficacy expectancies (Bandura, 1977). Outcome expectancies consist of the conviction that certain behaviors will lead to certain outcomes; personal efficacy expectancies consist of the conviction that one can successfully perform the behavior in question. Personal efficacy ex-
pectancies are the most powerful determinants of behavioral change because they determine the initial decision to perform a behavior, the effort expended, and persistence (Bandura, 1977).

Perceived self-efficacy is also capable of affecting thought patterns and emotional arousal. Inefficacious people are likely to limit their own behavior and to approach tasks with strong self-doubts which create internal obstacles that interfere with effective performance (Bandura, 1977). Self-perceptions of efficacy also determine perseverance. People may give up trying because they do not think they can achieve the desired performance (Bandura, 1977). Yet when people do persevere and master desired levels of performance, they feel satisfied, which in turn increases their interest in performing the activity (Bandura, 1981).

Strategies for Enhancing Self-Efficacy

Efficacy enhancement is required to alter efficacy-related behavior patterns, thought patterns, emotional arousal, and level of perseverance. Perceived self-efficacy may be gained, enhanced, or decreased through three principal sources: (a) performance accomplishments (success or mastery experiences); (b) vicarious experiences (modeling); and (c) verbal persuasion (Bandura, Adams, & Beyer, 1977). Of these, performance accomplishments provide the most influential source of efficacy information because they are based on success or mastery experiences (Bandura et al., 1977). The degree to which perceived self-efficacy can be enhanced through performance accomplishments depends on the amount of effort expended, the difficulty of the task, the amount of external aid received, the temporal pattern of success and failure, and the circumstances involved (Bandura, 1981). Efforts to increase self-efficacy should respond to the following:

1. To succeed at any easy task is redundant with what one already knows, whereas mastery of a difficult task conveys new efficacy information for raising one's efficacy appraisal.
2. Successes achieved with external aid carry less efficacy value because they are likely to be credited to external factors.
3. Success with minimal effort is less likely to have an impact on perceived self-efficacy. Individuals who experience periodic failures but continue to improve over time are more apt to raise their perceived efficacy. (Bandura, 1981, pp. 7-8)

There is evidence (Bandura et al., 1977; Hogan & Santomier, 1984) that personal efficacy enhancement may generalize to other situations in which performance has been self-debilitated by preoccupation with personal inadequacies. Efficacy enhancement through performance enactment (mastery experiences) has the strongest generalizing effects (Bandura, 1977).

Self-Efficacy and Handicapped Individuals

Research documenting the level of self-efficacy among handicapped individuals is needed. Because of physical and attitudinal barriers, discrimination, stereotyping, and limited access to avenues for efficacy enhancement, handicapped individuals may be thought to have lower levels of perceived self-efficacy than nonhandicapped individuals. Yet there are many
examples of perceived efficacy enhancement of these individuals through mastery experiences, modeling, and verbal persuasion.

Following are testimonials, observations, and research results that reflect the workings of the cognitive behavioral mechanisms that Bandura (1977) has identified as self-efficacy enhancement, and represent excellent examples of generalized efficacy enhancement in select handicapped individuals:

"'Now I can do anything I want with the rest of my life' (New York Times, July 18, 1982), said Donnie Rodgers when he and two other physically handicapped individuals, after a 5-day climb, successfully reached the 8,751-foot summit of Guadalupe Peak, the highest point in Texas.

A case study of a visually impaired cross-country runner led Sonka and Bina (1978, p. 212) to make the following observations:

With the success and accomplishments afforded by cross country running, Jack (visually impaired) has become more outgoing, more confident and is better accepted by the student body and faculty. As an indication of Jack's increased confidence and motivation, it should be noted that he independently signed up for, and completed, a 20 mile run following the 1975 season. Since then he has run in numerous half-marathons.

Nilsson, Staff, and Pruett (1975, p. 55), after studying the effects of arm ergometer training on subjects with long-standing paraplegia, concluded,

The subjective effects of the training were pronounced. Subjects reported increased confidence in coping with daily problems and an increased sense of well-being. They continued their training after the completion of the investigation.

Strategies for Enhancing the Perceived Self-Efficacy and Self-Concept of Disabled Students

As stated previously, disabled individuals in particular may benefit from interventions designed to enhance self-efficacy and self-concept. To teach for enhancement of these two constructs in the handicapped and nonhandicapped children in their classes, physical educators must have (a) a commitment to the importance of the emotional well-being of each student in the class (Gustafson, 1978), (b) an understanding of the ideas of self-efficacy and self-concept and of how these constructs relate to emotional well-being, (c) a commitment to the development of motor skills and physical fitness and an understanding of how their development relates to self-efficacy and self-concept enhancement, and (d) behaviors and qualities that help foster success experiences and feelings of worth in others (warmth, compassion, interest in students as individuals, fairness, patience, sense of humor, open-mindedness, knowledge of the subject area, orderliness, cognitive organization, etc.).

Teachers may design interventions that take the form of performance accomplishments (mastery experiences), vicarious experiences (modeling), or verbal persuasion. The following represent practical applications for enhancing self-efficacy and self-concept and are based on the research concerning self-efficacy and self-concept.

1. Determine the handicapped child's physical education history and identify the skills that the child (a) has an interest in learning, (b) has had difficulty in learning, (c) avoids, or (d) fears. These factors may affect activity choice, success pattern, interest, motivation, and perseverance.
2. After identifying the appropriate skills or activities, provide graded success experiences. That is, task-analyze the skill and help the child successfully complete each step. The temporal pattern of success and failure affects the degree to which one can raise perceived self-efficacy. Teach for success, not for failure.

3. Gradually reduce the amount of external aid provided to the child, so that the child can independently complete the task successfully. The amount of external aid received affects the degree to which one is able to raise perceived self-efficacy. In a study by Dowrick (1977) as reported by Bandura (1981), the hesitancies, external aids, and mistakes were selectively deleted from a videotape of children who exhibited gross deficits in psychomotor and social skills. After observing their videotaped successful performances, these children displayed substantial improvement in their performances as compared to their baseline performance.

4. Set challenging but realistic goals for the child. The difficulty of the task affects the degree to which one can raise perceived self-efficacy.

5. Verbally reinforce the child. Verbal persuasion involves attempting to persuade individuals that they have the capabilities to surmount their difficulties. “To the extent that persuasive boosts in efficacy lead people to try hard enough to succeed, they promote development of skills and competencies” (Bandura, 1981, p. 6).

6. Utilize peer models to demonstrate the successful execution of activities, since efficacy appraisals can be affected by vicarious experiences. Viewing similar others (models) master a task can raise efficacy expectations in the observers so that they feel they too can succeed at a comparable task (Bandura, 1981).

7. Use statements like “you’ve done that so well, perhaps you’re ready for this” in order to encourage the child to perform other, perhaps more difficult tasks. Mastery of one experience may increase the child’s interest in other activities.

8. Eliminate ill-planned, excessive, or indiscriminant competitive practice in which handicapped children, or for that matter any children, are doomed to fail from the beginning. Include noncompetitive activities.

9. Develop a classroom atmosphere conducive to learning and to the acceptance of individual differences. Students should feel accepted rather than threatened. Teachers should realize that they set the tone for acceptance, and therefore should be aware of the verbal and nonverbal messages they emit to the class concerning the handicapped individuals in their class (Gustafson, 1978).

Summary

Handicapped children in the mainstream in particular may benefit from experiences designed to promote enhanced feelings of self-efficacy and of self-esteem, because physical and attitudinal barriers, lack of social acceptance, and limited access to avenues for self-efficacy and self-concept enhancement may have a negative effect on the way they perceive their physical and cognitive abilities and their self-worth.

Interventions that include mastery experiences, verbal persuasion, and peer modeling may enhance the self-efficacy of disabled individuals and increase their behavioral repertoire. It was the purpose of this paper to provide physical educators with a conceptual basis for understanding the constructs of self-concept and self-efficacy as well as the strategies involved in enhancing those constructs, so that physical educators may apply this information in their classrooms.
References


