Personal Epistemology and Self-Efficacy in the Special Education Teacher

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Abstract

This report summarizes the personal epistemology and self-efficacy concepts and they affect special education teachers. This report is based on the social cognitive theory, perceived and collective efficacy, and how the conceptual thoughts of a special education teacher affect their instructional focus in the classroom. Self-efficacy beliefs are identified from four principals of information: enactive mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states. These concepts are important for special education teachers and the administration alike to help the instructional and learning environment.

Personal Epistemology and Self-Efficacy

People's beliefs in their efficacy have diverse effects and such beliefs influence the courses of action people choose to pursue, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and failures, they're resilience to adversity, whether they're thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with taxing environmental demands, and the level of accomplishments they realize (Bandura, 1997). Hofer (2006) identified the conceptual framework of personal epistemology and the connection of motivation, cognition, and learning as a focus of educational psychologists.

Personal Epistemology

Personal Epistemology has been correlated with three different names throughout the educational psychology literature. King and Kitchener (1994, 2004) identified some of them as reflective judgment, epistemological or epistemic beliefs, ways of knowing, and epistemological reflection. Hofer and Pintrich (1997) worked on clarifying the definition of personal epistemology, the nature of an individual's conception of knowledge and how these conceptions are related to learning, teaching, and education. Hofer and Pintrich (2002) suggest connections between personal epistemology and conceptual change, and they advocate further research on the relation between epistemology and motivation, learning strategies, pedagogical approaches, and classroom context.

Hofer (2006) suggests that personal epistemologies are those beliefs that an individual holds about knowledge, knowing, and are related to learning and achievement thus, differentiating these beliefs by disciplines (i.e., special education) and judgment domains (e.g., self-efficacy). Personal epistemology is a process fostering productive attitudes and student epistemologies which are important to instructional outcome (Lising & Elby, 2005). Hofer (2001) states personal epistemologies help us understand how individuals resolve competing knowledge

claims, evaluate new information, and make fundamental decisions which affect their personal lives.

Hofer (2001) provides three general views that demonstrate an existing connection among learning, instruction, and epistemology:

1. Epistemology is developmental. Development is the aim of education and part of the goal of education is to foster epistemological development.
2. Epistemology exists in the form of beliefs. Learning is influenced by epistemological beliefs which individuals hold.
3. Epistemology is either theory-like or exists as more fined-grained epistemological resources, which are engaged in ways that are context-dependent.

It is self-efficacy and teacher beliefs which seem to be an integral part of personal epistemology. Gaining a further understanding of self-efficacy through a review of the literature will help identify how these components relate to special education teachers. Schommer-Aikins and Easter (2006) provide further support stating it is highly likely that personal epistemology plays a role in how teachers make decisions about curriculum, instruction, and evaluation.

Self-Efficacy

Bandura (2006) states conceptions of human nature have changed markedly over time and through cognitive self-regulation, humans can create visualized futures that act upon the present, construct, evaluate, and modify alternative courses of action to secure valued outcomes, and override environmental influences.

Social cognitive theory helped advance a review of human functioning that accords a central role to cognitive, vicarious, self-regulatory, and self-reflective processes in human adaption change (Bandura, 1986). The concept of reciprocal determinism and the triadic reciprocal causation help to show how the human agency operates within the interdependent causal structure involving (a) personal factors in the form of cognition, affect, and biological events, (b) behavior, and (c) environmental or external influences (Bandura, 1986).

Although collective efficacy is widely recognized to be important to organizational functioning there is little research in this area (Bandura 1986). The study of collective efficacy is important, in part, because of its possible effect on performance (Parker, 1994). Teachers' confidence of their own abilities to educate students in their classrooms can be related, but is not identical, to their knowledge of other schools' abilities as a whole, to educate students. Parker (1994) stated there are several reasons for teachers' confidence to be identified: first, teachers have more detailed information about their own classrooms than they have about their school as a whole: second, talented individuals can sometimes rise above a weak institution and perform well: third, untalented individuals can find themselves surrounded by talented colleagues.

Perceived Self-Efficacy

Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute courses of actions required to produce given attainments (Bandura, 1997). A strong sense of efficacy enhances human accomplishment and personal well-being; people with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided (Bandura, 1994).

Bandura (1997) stated self-efficacy beliefs are constructed from four principal sources of information: enactive mastery experiences that serve as indicators of capability; vicarious experiences that alter efficacy beliefs or transmission of competencies and compares with the attainments of others; verbal persuasion and allied types of social influences that one possesses certain capabilities; and physiological and affective states from which people partly judge their capableness, strength, and vulnerability to dysfunction.

Enactive Mastery Experiences

Enactive master experiences are the most influential source of efficacy information because they provide the most authentic evidence of whether one can master whatever it takes to succeed (Bandura, 1997). Successful accomplishments enhance one's self-efficacy, however failed accomplishments diminish the belief that one can be successful. How people behave can often be predicted by the beliefs they hold about their capabilities and by what they are actually capable of accomplishing, for the self-efficacy perceptions help determine what individuals do with the knowledge and skills they have (Pajares, 2001). Elder and Liker (1982) provided a good example of this effect in their analysis of an enduring impact of hard times during the Great Depression on women's lives. Some adaptive resources for women identified were: early economic hardships left them more self-assured and resourceful in later years, and they did not have to struggle through hard times. Women who were less equipped to cope with adversity, severe economic hardship left them less intellectually astute and with a sense of ineffectualness and resignation in their later years.

The extent to which people will alter their perceived efficacy through performance experiences depends upon, among other factors, their preconceptions of their capabilities, their perceived difficulty of the tasks, the amount of effort they expend, the amount of external aid they receive, the circumstances under which they perform, the temporal pattern of their successes and failures, and the way these enactive experiences are cognitively organized and restructured in memory (Bandura, 1997). By altering one's perceived self-efficacy, an individual is able to reconstruct past experiences and improve performance by accessing their memory.

Vicarious Experience

Efficacy appraisals are partly influenced by vicarious experiences mediated through modeled attainments (Bandura, 1997). Modeled attainments have the ability to influence success or failure of an individual and raise or lower perceived self-efficacy. When a model with whom the observer identifies performs well, the efficacy beliefs of the observer most likely are enhanced;

when a model performs poorly, the efficacy beliefs of the observer tend to decrease (Goddard, Hoy, & Woolfolk Hoy, 2004).

Modeling influences do more than provide a social standard against which to judge one's own capabilities and competent models transmit knowledge and teach observers effective skills and strategies for managing environmental demands (Bandura, 1994). In conveying cognitive skills by verbally modeling thought processes, models verbalize their thoughts about how to use concrete plans and strategies to diagnose and solve problems, generate alternative solutions, monitor the effects of their actions, use coping self-instructions to overrule self-doubts, use self-praise to provide motivational support for their efforts, and manage stress (Meichenbaum, 1977; Meichenbaum & Gilmore, 1984; Schunk, 1989).

Verbal or Social Persuasion

People who are persuaded verbally that they possess the capabilities to master given activities are likely to mobilize greater effort and sustain it than, if they harbor self-doubts and dwell on personal deficiencies when problems arise (Bandura, 1994). Verbal or social persuasion has the ability to be a powerful tool and can influence perceived self-efficacy of an individual. Persuasory or persuasive efficacy attributions, therefore, have their greatest impact if people have some reason to believe that they can produce effects through their actions (Chambliss & Murray, 1979).

Bandura (1977) stated that people are led, through persuasive suggestion, into believing that they can cope successfully what has overwhelmed them in the past; efficacy expectations induced in this manner are likely to be weak and short-lived. Successful efficacy builders do more than convey positive appraisals; they raise people's beliefs in their capabilities and structure situations for them in ways that bring success and avoid placing individuals in situations where they're likely to fail often (Bandura, 1994).

Physiological and Affective States

Somatic indicators of personal efficacy are especially relevant in domains that involve physical accomplishments, health function, and coping with stressors (Bandura, 1977). Individuals have the capability to assess their own physiological and emotional states during activities which may or may not alter their performance. People differ in their proneness to dwell on their somatic states of reaction; some are quick to focus in ruling on their sensory experiences, others are more externally oriented (Carver & Scheier, 1981; Duval & Wicklund, 1972).

Pennebaker and Lightner (1980) stated the less absorbed people are in activities and events around them, the more they focus attention on themselves and notice their aversive bodily states and reactions and taxing situations. Attention has very limited capacity, so there are only a few things to which one can attend to at any given time (Kahneman, 1973).

Collective Efficacy

Perceived collective efficacy refers to a group's shared belief in its conjoint capabilities to organize and execute courses of action required to produce given levels of attainments (Bandura, 1997). Bandura (1993) found that the collective efficacy of the school staff play a key causal role in path analysis predicting school achievement in reading and mathematics.

Collective efficacy is associated with the tasks, level of effort, persistence, shared thoughts, stress levels, and achievements of groups (Goddard, Hoy, & Woolfolk Hoy, 2000). Many of the challenges life centers on are common problems that require people to work together with the collective voice to change their lives for the better. The strength of families, communities, organizations, social institutions, and even nations lies partly in people's sense of collective efficacy that they can solve the problems they face and improve the lives a unified effort (Bandura, 1997).

Collective teacher efficacy is the perceptions of teachers and the school that the efforts of the faculty as a whole will have a positive effect on the students (Goddard et al., 2000). Bielacyze and Collins (1999) suggested that the role of a learning community is a component of collective efficacy and identified eight dimensions in such a community: (a) the community has goals; (b) the community engages in a variety of learning activities providing for individual development and collaborative construction of knowledge; (c) the teacher's role is that of an organizer and facilitator of student-directed activities; (d) community members embrace different roles at various times respecting each other's differences; (e) resources and processes of learning are shared among community members; (f) members provide feedback to one another and develop ways to share ideas, knowledge, and skills; (g) members develop in-depth understanding of key ideas and share knowledge that contributes to the growth of the community; and (h) community members create products that can further the understanding of the community (pp. 269-292).

Pintrich (2001) suggests that teachers are either facilitated or constrained by epistemological beliefs. As the research base grows in this field, the need to speak directly to practitioners about the utility and importance of attending to beliefs about knowledge and knowing. Their influence on strategy use, comprehension, conceptual change and cognitive processes becomes vital (Pintrich, 2001). Additionally, teachers need increased attentiveness to teaching the epistemology of their fields, discussing how knowledge develops and how it is validated (Pintrich, 2001).

Pajares (2002) states that the beliefs that teachers hold about teaching and learning, including beliefs about their students, have a significant influence on the teachers behaviors. Pajares (1992) asserts that beliefs are the best indicators of the decisions that individuals make throughout their lives, for example, the choices they make for teaching strategies in the classroom. Teachers' beliefs about the importance of the content taught, their beliefs regarding appropriate instructional strategies and their sense of self-efficacy have all been found to influence instruction (Hargreaves & Fullan, 1992; Loucks-Horsley et al., 1998).

Conclusion

In summation, special education teachers have a conceptual focus on teaching and learning in their classroom. Understanding how personal epistemology influences an individual allows them to use their own knowledge to support motivation, learning strategies, pedagogical approaches, and classroom context. Self-efficacy is how we perceive our own capabilities to deliver instruction and influence the learning process in the classroom. Collective efficacy is influenced how well the school, administration, and teachers support the students and the learning environment.

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