

BEYOND THE CONFINES OF THE CLASSROOM: SELF-DIRECTED LEARNING AND STUDENT SELF-EFFICACY FROM THE PERSPECTIVE OF AN ELEMENTARY SCHOOL

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Self-directed and efficacious learners have found themselves faced with a uniform and uninspiring instructional environment in the past decade as schools scrambled to comply with the mandates imposed by the 2001 reauthorized of the Elementary and Secondary Education Act popularly known as No Child Left Behind (Ravitch, 2009). School systems responded to demands of 'Adequate Yearly Progress' by instituting common system wide assessments which often forced schools to narrow the curriculum and standardize instruction. As students spent the academic year preparing for high stakes testing, strategies that allowed students to explore their grade-level curriculum concepts more deeply or gain antecedent knowledge in preparation for concepts taught in subsequent years often gave way to limited instructional pedagogy. Adequate Yearly Progress was far from adequate for self-directed and efficacious students.

Framing Student Learning

Linking student self-efficacy to the constructs of self-directed learning requires an understanding of the theoretical underpinnings framing each construct. John Dewey, for whom we owe tremendously our understanding of American educational pedagogy, believed we fail children by treating them as vessels in which information is simply stored for later consumption. As a result, students do not make meaningful connections between their learning and life experiences (Dewey, 1897). Under circumstances where the significance of learning remains an unsolved mystery to children, one would wonder how they would perceive themselves as learners. Students may view memorization and reiteration as the final objective of school and fail to find personal meaning in the work they do. Rather than active participants in their own learning, students become idle observers of a system devoid of positive experiences (Kliebard, 1986). An environment as such described

does not offer opportunities to build capacities as an efficacious or a self-directed learner, yet one hundred years later, we often continue to ignore the needs of the learner and fail to take advantage of children's natural curiosity to learn.

Conversely, students who are active participants in their learning, who have been taught the skills needed for success, who build their capacity to learn and succeed even in the face of failure, become efficacious and self-directed learners (Bandura, 1994; Gibbons, 2002). This review attempts to present literature drawing a relationship between the constructs of self-directed learning and student self-efficacy specifically linking motivation to learn as the common bond between the two constructs.

Self-directed Learning

From the time of birth, children possess a natural curiosity and drive to understand the world around them. Naturally, children search for their role in the world and work to establish significance through mastery of skills and fulfillment of needs. Humans begin life with an irrepressible desire to learn, and with encouragement, continue that quest for a lifetime (Gibbons, 2002). Children enter school with little notion of the skills and knowledge necessary for academic success. As children mature, their academic self-perceptions become clearer. Children develop an understanding of what works best for them in accomplishing academic tasks as they build a repertoire of skills and strategies useful toward their success (Areglado, Bradley, & Lane, 1996). Motivation is associated with the processes of self-efficacy as children relate to the ability to carry out inquiry tasks within the realm of self-directed learning. These inquiry tasks are influenced by interactions with peers and teachers thus influencing motivation.

Attributes of Self-directed Learners

Self-directed learning (SDL) is “an increase in knowledge, skill, accomplishment, or personal development that an individual selects and brings about by his or her own efforts using any method in any circumstances at any time” (Gibbons, 2002, p.2). Van Deur and Murray-Harvey (2005) expand the definition to include “work on problems for which the individual or small group has ownership” (p. 167). Van Deur (2004) lamented the lack of research on self-directed learning as it pertains to primary-age students. She did however provide information based on research of gifted students dating back 30 years. VanDeur found gifted self-directed learners were students with the ability to manage decisions, set goals, and accomplish objectives. Gifted students were described as mental managers possessing the ability to analyze and synthesize in practical situations. She described an indicator of self-directed learning as students who have completed the process of controlling choices while the teacher acts as an advisor and facilitator. Van Deur suggested that learning is influenced internally and externally when students engage in self-directed learning experiences. Internal influence is described as the metacognitive dispositional beliefs within students to succeed. External influences are manifested in the social cognitive realm.

SDL is rooted in five guiding principles as outlined by Gibbons:

- “Programs should be congruent with a life of learning, the natural ways we learn, and the unique methods by which each of us learns best” (p. 9). The breadth and quality of our learning determines the degree of success we achieve throughout life. SDL should be congruent with the natural path of learning for a lifetime.
- “Programs should be adapted to the maturation, transformations, and transitions that adolescent students experience” (p. 10). As students transition cognitively and physically through the developmental years

they should be given opportunities to be challenged academically yet find success.

- “Programs should be concerned with all aspects of a full life” (p. 10). The educational experience should focus, of course, on academic aspects but also take into consideration personal and social domains of human development.
- “Learning in SDL programs should employ a full range of human capacities including our senses, emotions, and actions as well as our intellects” (p. 10). Though traditional learning narrowly focuses on the senses of sight and sound, the full range of learning includes honing in on a complete sense of awareness thus learning through all the senses.
- “SDL activities should be conducted in settings suited to their development” (p. 10). Multimedia materials and experts can be brought into the classroom as a starter but many, if not most, learning opportunities occur outside the classroom.

Self-directed learning is not handing total control over to the student. However, to the extent possible and based on the developmental level, students should begin to take charge of their learning. As such, students should be expected to take responsibility for their own behavior and take upon themselves the obligation of finding resources conducive to learning. Teachers are charged with assisting students in developing these skills and characteristics. As self-directed learners, students begin to challenge themselves. They learn to manage their time while finding strategies to tackle perplexing problems. Self-directed learners are able to self-evaluate. They develop metacognitive skills for the purpose of assessing how they are learning in order to determine the learning that works best for them (Gibbons, 2002).

Self-directed learning is not a curriculum. It is a set of principles for which curriculum and instruction can be used in a way that emboldens students to become lifelong learners. Unfortunately, self-directed learning behaviors are not possessed by everyone. Nor are self-directed learning principles meant to supplant traditional models of

teaching (Areglado et al., 1996). Van Deur and Murray-Harvey (2005) provided a word of caution pertaining to the lack of research regarding self-directed learning for elementary age students. Most research on the constructs of self-directed learning, and by association learning through inquiry, draw on the research of adults. Further research is needed in these areas as elementary schools explore the benefits and limitations of self-directed programs.

Learning through Inquiry

A vital component of self-directed learning is that of inquiry. As human beings, our natural ability to reflect on our consciousness constructs our relationship with the world. This is in the tradition of Socrates who believed that reflectivity was the strongest manifestation of what it means to be human (Knight & Collins, 2010). Young children possess a natural sense of inquiry. Youngsters find satisfaction and even joy in solving things they find puzzling and are not inhibited to ask questions or make mistakes. The drive to discover meaning and truth nourishes and strengthens their curiosity. That natural curiosity tends to be lost, or beaten down, as they progress through school. Knight and Collins contend that when children are taught antecedent skills for inquiry and encouraged to experience the joy of investigation and discovery, they were more likely to care for truth and value the beliefs of others. Knight and Collins continue

Equally, the logical techniques of argument analysis, the techniques which allow us to distinguish good arguments from bad, can be taught and executed in the classroom with little difficulty. Children can be shown how to think through these issues for themselves. Moreover the motivation is there: the issues are not yet decided; there is no answer to be looked up. And on the whole... they are issues in which children see the need to resolve (p. 309).

The view that students can understand and respond to complex inquiry skills is shared by Lazonder and Kamp (2012). They contend that

“students as young as six years old can differentiate between conclusive and inconclusive experiments and 12 year olds have a rather complete understanding of what constitutes a well-designed experiment” (p. 458). Children acquire the knowledge base quickly if deliberate instruction is part of the curriculum. Fortunately, it is never too late to teach prerequisite knowledge. Students who have not been exposed to inquiry concept skills can become proficient in a rather brief period.

A notable concept of inquiry in elementary schools is put forth by the Galileo Educational Network (2013) located at the University of Calgary. Galileo promoted inquiry as a basis for all forms of learning. In this project, they view understanding as a process achieved through collaboration with peers and teachers. To Galileo, inquiry is a collaborative study of a worthy question or problem for the purpose of building knowledge. Galileo offers several dimensions of inquiry as an attempt to meet differing curriculum needs, a few of which are described in this article. *Authentic Inquiry* is most closely related to the Socratic model. Students generate a question emanating from a problem, issue, or curricular discipline. The teacher works with students to formulate connections, create, or explore opportunities that contribute to students’ knowledge or society as a whole. *Academic Rigor* allows students the opportunity to build deep knowledge of curricular concepts that lead to deep understanding. It encourages habits of mind in which questions of evidence, viewpoints, patterns, and suppositions are explored to understand why the topic matters.

Inquiry Beyond the School is another dimension supported by the Galileo Educational Network (2013). The curricular outcomes are grounded in life beyond the confines of the school. Students are charged with organizing and self-managing a self-selected or assigned project through completion on their own time. Finally, inquiry through a *Connection with Experts* requires observation and interaction with people who are experts in their fields other than their teacher. Obviously, educators must be cognizant of the limitations of the last two dimensions described.

Some students do not have the opportunity or connections necessary to participate in such inquiry. Also, research is warranted to determine the effectiveness of the concepts put forth by Galileo Educational Network.

Student Self-efficacy

Social cognitive theory, as put forth by Bandura, centered on the belief that humans are generally in control of their lives by taking control over personal, behavioral, and environmental influences (Schunk & Pajares, 2009). It takes the view that individuals “are proactively engaged in their own development and can largely determine the outcomes of their actions” (p. 35). The capacity to self-evaluate enables people to understand their experiences, evaluate alternative solutions, and adjust behaviors accordingly. Schunk and Pajares articulate the role teachers have in supporting the development of student self-concept as follows

Using social cognitive theory as a framework, teachers can improve their students’ emotional states and correct their faulty beliefs and habits of thinking (personal factors), raise their academic skills and self-regulation (behaviors), and alter the school and classroom situation (environmental factors) to ensure student success (p. 36).

Efficacious students, in turn, are more likely to embrace difficult situations as a challenge and possess the skills to solve problems. Efficacious students are more likely to persevere, search for deeper meaning, and succeed than their counterparts with low self-efficacy beliefs (Joet, Bressoux, & Usher., 2011). Self-efficacy was shown to have an influence on increasing academic motivation when students were in school and outside of the school walls (Bandura, 1997; Schunk & Pajares, 2009; Gibbons, p. 95).

Bandura defined self-efficacy as “people’s judgments of their capabilities to organize and implement courses of action required to attain designated types of performance” (Bandura, 1986, p. 391). He refined the definition specifically for the

educational setting as “beliefs students hold in their capacity to accomplish tasks required for learning (Joet et al., 2011, p. 649). As Bandura framed various constructs for the study of self-efficacy he isolated four sources of self-efficacy centered specifically on student learning: mastery experience, vicarious experience, social persuasions, and physiological and emotional state. This article focuses on the first three sources because they are the most relevant to the school setting.

Mastery Experiences

The most influential source of self-efficacy, according to Bandura (1994) was mastery experiences. Mastery experience was described as a robust belief in the ability to succeed based on previous experiences that result in success. Successes requiring perseverance and the overcoming of obstacles solidify a sense of self-efficacy. Conversely, experiencing multiple failures or becoming discouraged with failure after experiencing only easy successes undermined the formation of self-efficacy. Perceptions of success may be contextual (Joet, et al., 2011). A student may win a race yet be disappointed because she did not achieve her personal best. Another student may be ecstatic with a second place finish because she ran much faster than she expected to run. In this scenario, the second place finisher may be the winner in the self-efficacy sweepstakes.

Students who possessed low self-efficacy are often those with little or no success in mastery of an academic subject. Failing students are most in danger of academic failure when they generalize the failure of one subject such as reading to all subjects (Margolis & McCabe, 2006). Caution must be taken to ensure students with low self-efficacy are not further estranged academically by low expectations. Feelings of self-doubt are solidified when expectations are artificially low causing additional stigmatization. Margolis and McCabe suggested tasks be set slightly above current performance level ensuring success. Creating a challenging environment in which children can build upon successes that became continuously more difficult

placed students on a trajectory of academic mastery thus increasing self-efficacy. Suggestions for increasing mastery experience success correlated with the tenants of self-directed learning: capitalizing on student choice and interest. "Choice is a major motivator... when present, it energizes high levels of interest; when missed it can arouse resistance" (p. 222). Choices should be meaningful to the student and acceptable to the teacher. Allowing several choices of a book or an assignment satisfies a student's quest for self-efficacy. Ensuring positive mastery experiences in an environment where students have choices develops student motivation, supporting both self-directed learning and student self-efficacy.

Vicarious Experiences

The second source of self-efficacy beliefs is vicarious experiences. Observing peers, parents or teachers succeed at tasks similar to that which the student desires to accomplish builds on strengthening self-efficacy beliefs. The more the task mirrors the goal the student wishes to accomplish, the more vicarious experiences influence self-efficacy (Bandura, 1994). Usher and Pajares (2006) confirm the findings of Bandura. Observing someone they regard as a model succeed is most influential when a student lacks certainty on his or her own ability or has little experience with a task. The influence of an age mate is the most powerful dimension of vicarious experiences.

Social Persuasion

Social persuasion was the third source of self-efficacy beliefs. Students who are verbally encouraged tend to strive more ardently toward mastery of a goal. Persuasive discussions assist students in banishing thoughts of self-doubt and reasoning through problems positively as they strive to accomplish desired goals (Bandura, 1994). Positive evaluative feedback from trusted peers, teachers, or parents escalated the students' confidence to strive toward accomplishment, especially in younger children. Adjusting verbal persuasion and task expectations to the

developmental level of the student improves the chances for success and avoids placing students in a situation where they were sure to fail. Using social persuasion toward building beliefs of self-efficacy is not as easily accomplished as the use of social persuasion to deflate self-efficacy beliefs (Joet, et al., 2011). Disparaging comments from trusted individuals can have a long term and devastating effects.

Conclusion

As educational leaders navigate their way through the transition that leads away from No Child Left Behind mandates; they can assuredly expect stringent accountability measures to replace AYP standards. Whether subsequent standards prove to be more or less suffocating does not negate the idea that efficacious self-directed learners can and will rise to high expectations if given the opportunity. Both self-efficacy and self-directed learning are strongly correlated to motivation. Efficacious and self-directed learners are also more likely to analyze, synthesize and evaluate their processes as they build knowledge and transfer that knowledge to other aspects of learning. These learners have a tendency to persevere and possess a more positive concept of themselves and their learning.

As a multitude of educational researchers contend, skills concentrated toward self-directed learning, especially learning through inquiry, must be explicitly taught. Success remains elusive if it is assumed students possess the antecedent skills to understand or apply self-directed learning behaviors.

Glaringly absent from the body of literature on student self-efficacy and self-directed learning are dissenting views of these constructs. Though researchers touch on the issue of fluidness related to undeveloped cognitive processes of young people, the saliency of student self-efficacy and self-directed learning cannot be known until extant research establishes the limitation of these constructs. Extensive searches of the literature reveal eerie silence regarding critical views of the constructs of student self-efficacy and self-directed

learning. It seems scholars and practitioners have accepted these two constructs as established principles immune to scrutiny. This is a mistake and diminishes its usefulness in practical application. Until an extensive conversation on the strengths and weaknesses of these two constructs takes place, we cannot fully appreciate nor understand the implications of self-efficacy and self-directed learning on elementary students.

More research is needed to adequately understand the constructs of student self-efficacy and self-directed learning in elementary school age children. Ample research was available pertaining to self-efficacy beliefs of gifted students or adults. This places researchers in the conundrum of making assumptions as to how the validity of the research extends to elementary age students. Research on the correlation between self-efficacy and self-directed learning is in its infancy offering researchers the opportunity to make great strides in our understanding of high performing students. Filling the academic void allows students an opportunity to expand beyond the confines of a narrow curriculum centered primarily on meeting accountability measures. It works toward the most essential gift to our youth- the gift of life-long learning.

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