SELF-EFFICACY, SPECIAL EDUCATION STUDENTS, AND ACHIEVEMENT: SHIFTING THE LENS

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Abstract

Self-efficacy is a cognitive theory that surfaced in the 1970's. In the past 15 years, it has gained more attention as an important component to understand in furthering the academic achievement of special education students. Varying levels of self-efficacy can affect how a student perseveres when a task is difficult, and can be a predictor of academic achievement. In this literature review, 60 articles were retrieved through the initial Boolean phrase search. After inclusion and exclusion criteria were applied, 18 articles remained. Careful review of these articles revealed three major themes regarding self-efficacy in students receiving special education services. The following articles provide insight on how self-efficacy impacts academic success, motivation, and effort in the special education population, along with how teachers and specialists can enhance and foster self-efficacy through instructional practices. Implications are then discussed on how shifting instructional interventions and teacher interactions with students in the classroom could improve student self-efficacy and consequently improve their academic achievement.

Introduction

Students identified with a learning disability (LD) often need specialized instruction under an Individualized Education Program. This group of students has to work harder to attain the same results as their non-learning disabled peers. Over time, this will affect the student's self-efficacy. Self-efficacy is the students' belief in their abilities to conquer academic tasks and is based on academic experiences. "Self-efficacy perceptions influence choice of activity, task perseverance, level of effort expanded, and ultimately, degree of success achieved" (Klassen, 2007). Over time, these perceptions can wear on student persistence, effort, and motivation toward academics (Zimmerman, 2000). A lack in effort and motivation is a dangerous dynamic for students who usually need to apply themselves more than their typical peers to get the same results. "Adolescents with LD experience the same physical, educational, and social transitions as their peers, but with the added challenge of significant learning deficits in specific domains" (Klassen & Lynch, 2007). Self-efficacy and self-concept are similar constructs, however, "[s]elf-efficacy represents the judgment of confidence that individuals have in their abilities, while self-concept provides a description of the individual's own perceived self, accompanied by an evaluative judgment of self-worth" (Lackaye, Margalit, Ziv, & Ziman, 2006).

For the purpose of this review, it is important to look solely at self-efficacy and not self-concept or self-esteem; this is because of the motivational differences between the two.

The concepts of self-esteem and perceived self-efficacy are often used interchangeably as though they represent the same phenomenon. In fact, they refer to entirely different things. Perceived self-efficacy is concerned with judgments of personal capability, whereas self-esteem is concerned with judgment of self-worth (Bandura, 1997). Self-concept is related to how a person perceives themselves, their abilities, and their self-worth. Self-esteem is how a person feels about himself or herself. Self-efficacy relates more to the individuals' belief in their ability and capabilities (Lackaye, et al., 2006; Klassen & Lynch, 2007). A study published in 1979 showed that, "academically successful students scored significantly higher than academically unsuccessful students in self-esteem and perception of ability as well" (Battle, 1979). Self-efficacy is an important factor in a student's educational profile.

What is currently known about self-efficacy, especially in relation to special education students and academics needs to be examined. Then, how current knowledge can be built upon in the future to ensure that all, and especially special education students, maintain healthy levels of self-efficacy throughout their schooling. The information gathered about self-efficacy in special education students can aid professionals and researchers in continuing the work of creating the most effective and academically innovative instructional and curriculum choices. This will allow teachers to better educate the whole child, especially those that struggle with a learning disability.

Methods

For this literature review, Academic Search Premier was used with the truncated keywords *dis** and *learn**. The two connectors used were *self-efficacy* and *student*. To ensure the full scope of this topic was being reached with only one search engine, this search was replicated in ERIC and Education Journals. However, no additional articles where found that fit within the parameters; therefore, the literature review was kept to Academic Search Premier.

Self-efficacy was used in lieu of self-esteem because the purpose of this review was to examine what we know about students' judgment in their ability to do well and their confidence and belief in the skills and strategies they posses to tackle and persevere on academic tasks. Self-efficacy is an all-encompassing term that reflects the students' belief in their abilities and capabilities to work through a problem. Self-esteem, self-confidence, and self-concept are closely related and focus more on how the individual perceives their abilities and self-worth, often comparing themselves to others (Jungert & Andersson, 2013; Klassen, 2007; Lackaye et al., 2006).

The initial search in Academic Search Premier returned 60 articles. Of those articles, 40 were discarded with implementation of the inclusion and exclusion criteria. Through an ancestral search, two more articles were added with the same inclusion and exclusion criteria applied. Articles were included if they were in a K-12 educational setting and focused on self-efficacy; they were excluded if they focused on one disability or included college populations. The most common reason articles were discarded was because they focused solely on one disability; for example, solely looking at self-efficacy in student's diagnosed with Attention Deficient Hyperactive Disorder. After reading the full articles four more articles were excluded due to the content not meeting inclusion criteria (for example, the study truly focused on self-esteem, not self-efficacy). In the end, 18 articles met all criteria. These articles revealed three major themes; miscalibration of skills by students with learning disabilities, teachers' impact on self-efficacy beliefs, and how student self-efficacy levels affect academics.

Results

Three major themes presented themselves after careful review of the literature. All themes were in regards to how self-efficiency beliefs can influence success in special education students. These three themes are titled below as miscalibration, teacher and task effect on self-efficacy beliefs, and lastly, self-

efficacy, motivation, and content areas. These themes are discussed in depth below, and Table 1 reviews the distribution of the findings.

	All Studies $(n = 18)$	Miscalibration $(n = 3)$	Teacher Effect $(n = 4)$	Content Performance (n = 11)
Date of Publication				
1970's	1	-	-	1
1980's	3	1	1	1
1990's	1	-	-	1
2000's	12	2	3	7
2010's	1	-	-	1
Method				
Qualitative	1	-	1	-
Quantitative	11	2	-	9
Mixed Methods	1	-	-	1
Research/Lit. Review	5	1	3	1
Sample Size				
0-99	6	2	1	4
100 – 199	4	-	-	3
200 - 299	2	-	-	2
300+	1	-	-	1
Grade Level				
$1^{\mathrm{st}} - 7^{\mathrm{th}}$	10	1	-	9
$8^{\text{th}}-12^{\text{th}}$	4	1	1	2

 Table 1. Distribution of Major Themes

Miscalibration

Students receiving special education instruction and children identified as having a learning disability are more likely to miscalibrate their self-efficacy; meaning that a students' perceived ability and skill set to tackle an academic task are not in synch with their actual abilities (Klassen, 2002a; Alverez &Adelman, 1986; Nelson, & Manset-Williamson, 2006). When the student's perception and actual abilities are not calibrated, it can have a major effect on the amount of effort they invest into preparing or completing a task (Lackaye & Margalit, 2006; Klassen, 2007; Klassen & Lynch, 2007), ultimately effecting academic achievement across multiple content areas (Klassen 2002a, 2002b; Lackaye & Margalit, 2008).

A study conducted by Vivian Alvarez and Howard Adelman (1986) revealed a possible reason students overstate their abilities comes from a self-protective behavior. In this study, each of the five defensive items on the self-protective measure had a significant (p < 0.05 - p < 0.01) trend towards overstatement and denial. A student may also present an overoptimistic view of their abilities to mask a skill deficit (Klassen, 2002a). Lackaye, et al. also suggested that students' lack of positive self-efficacy beliefs has no relation to having a learning disability, but is due to lack of available resources for developing positive self-efficacy beliefs (2006). The classroom is an ideal environment for the student to have ample resources to develop a calibrated model of self-efficacy.

Robert Klassen completed a study looking at miscalibration of specific content area tasks between learning disabled students and non learning-disabled students. From this study he concluded, "adolescence[s] with learning disabilities can be confident but oblivious to their poor performance...the students that need to work the hardest end up doing the least work because they fail to recognize their academic short-comings" (2007). If teachers help students calibrate their self-efficacy, students will have a better idea of how they need to prepare and what skills they need to spend more time mastering. This will lend itself to more effective study habits and minimize any unnecessary preparation by the student.

Teacher and Task Effect on Self-Efficacy Beliefs

When a teacher is demonstrating a task, students see a flawless execution of a cognitive skill. This is helpful to teach children a skill, but not in building self-efficacy for learning. Students view the teacher as having a skill set that they are unlikely to attain. However, when a student views a peer complete a task, they are more likely to believe that they too, can learn and improve their skills (Schunk, 1989). Statements that adults make, as long as they are considered a credible source to the student, can help improve student self-efficacy (Schunk, 1989). Schunk (1989) uses the term *persuader credibility* to label the role that others have on a student's self-efficacy. "[S]tudents may experience higher self-efficacy when they [students] are told they are capable of learning by a trustworthy source, whereas they may discount the advice of less credible sources" (Schunk, 1989).

Trustworthy feedback may be validated or nulled by other experiences following a positive experience (Schunk, 1989), but adults still need to focus on raising student self-efficacy through carefully planned activities. A common practice that teachers can do with learning disabled students is to "engage in reviews of past performance, ideally guided by their specialist teachers to identify strengths and weaknesses, which increases self-awareness" (Klassen & Lynch, 2007). This awareness enables them to work on their weaknesses and take pride in their strengths. Consequently, by taking part in the process, they can gain self-monitoring skills through practice and teacher modeling.

Group work within the classroom is another powerful way to raise the self-efficacy of students with learning disabilities, but a teacher must choose groups wisely. Unproductive groups do not raise self-efficacy (Schunk, 1989). All group work doesn't need to happen within the classroom either, it can also happen throughout the school. "Activities that more fully involve students within the school and provide students with opportunities for success may improve a struggling students feelings of self-efficacy and increase motivation" (Friedland & Truesdell, 2006).

The first instinct of a teacher is to help a student, especially if they are struggling, but it is a fine line to balance on the part of the teacher. If a teacher gives too much assistance to achieve success, the student may interpret this as the teacher viewing them as incompetent. The key is to match task difficulty to the learners' instructional and independent levels. This will allow the student to struggle through work, link it to prior knowledge, become more motivated, and experience more successes. Since self-efficacy is criterion referenced (Klassen, 2007), this practice often strengthens the student's self-efficacy (Margolis & McCabe, 2004).

Students' are able to reflect on the effect of self-efficacy on academics when given the forum. In 2007, Robert Klassen and Shane Lynch interviewed 8th and 9th graders with learning disabilities through focus groups and individual interviews. Two quotes particularly captured how a student's belief in themselves can effect motivation towards a task. "Well, if you have no confidence¹, you're not going to be able to do any-thing at all. (B13) [boy 13]" (Klassen & Lynch, 2007); and from a 14 year old boy, "Somebody with low confidence levels might just think, 'Oh, I can't do it' and then not do it at all—or just half[hearted]ly" (Klassen & Lynch, 2007).

¹ To ensure understanding, the researchers used the colloquial term confidence as a substitute for self-efficacy for all focus groups and individual interviews.

The feedback that teachers give to students and the manner in which it is presented is a very important source of self-efficacy, even if you do not think it is significant at the time. Students commented that when a teacher gives praise or encouragement, "you don't really think it helps at the time, but when it comes down to it, it does" (Klassen & Lynch, 2007). Teachers also need to be aware of the help that they offer in the classroom. A student reported that when a teacher presents a new project or task, the way that a teacher offers help could make a difference.

Don't be like, "Do you need help with this— you have an LD?" but rather, "This is the project, if anybody needs help, they can come to me." They should give you a shot at it, because that means, "Oh, I think he can do it." (Klassen & Lynch, 2007).

The different views and perceptions of teachers and students towards self-efficacy cause a discrepancy between the way teachers provide interventions and how students with learning disabilities want interventions to be given. Students want help that is discreet and offered to the whole class and not just to learning disabled students. When students with learning disabilities are singled out it can be counterproductive (Klassen & Lynch, 2007). A teacher should help maintain a student's high, but accurate, self-efficacy beliefs (Nelson & Manset-Williamson, 2006) and give them the least amount of help to gain academic success (Margolis & McCabe, 2004). Many good teaching practices already help enhance self-efficacy for learning disabled students, and it is important to be aware of them and continue to implement them. From the study conducted by Klassen and Lynch all agreed that, "[t]eachers and students in all focus groups and individual interviews agreed that academic confidence beliefs contribute to academic achievement and that low confidence hampers performance" (2007).

The topic concerning the environment that a student is placed in to receive instruction and special education services also surfaced. Only two studies directly reported on this topic, however both found that students placed in smaller special education classes, versus the larger general education classes, reported greater gains in self-esteem and perceptions of ability (p < .01) (Battle, 1979; Battle and Blowers, 1982). There are many factors that could be attributed to this. First, the overall ability level of the class will be lower, therefore more in synch with all students. Also, a small group of students allows for more individual instruction, thus improving the weaker skills at a faster rate. Contradictory findings by Jungert and Andersson (2013) accounted for the differences in self-efficacy between these two groups through the conclusion that, "by receiving special education, children may feel that they are being singled out as bad performers, which may have a negative effect on their academic self-efficacy beliefs." Even though this does not directly reference a different placement or smaller class, it would suggest to teachers and specialists should not single out, and pull children with learning disabilities from the general education classroom.

Self-Efficacy, Motivation, and Content Areas

A student's self-efficacy beliefs can be an important predictor of achievement within a content area (Jungert & Andersson, 2013; Klassen, 2002a, 2002b, 2007; Lackaye, et al., 2006; Zimmerman, 2000). Motivation is also a large component of success (Zimmerman, 2000). Activities that improve a child's success within a specific content area have the ability to improve a student's overall self-efficacy and motivation (Friedland & Truesdell, 2006), consequently improving academic success. Although, Lackaye & Margalit reported that, "Students with LD had lower grades in all the reported subjects, invested less effort in their studies, and conveyed decreased self-efficacy..." (2006). When a student experiences close calibration between self-efficacy and performance, they will be more motivated to study and tackle a task in order to feel that success again, and repeated successes can increase self-

efficacy. I found that Jungert and Andersson capture the relationship between self-efficacy, academics, motivation, and learning very well in their study from 2013:

Academic self-efficacy is influenced by cognitive interpretations of success and failures on tasks but also influence effort, persistence, and cognitive resources that are used in seeking to interact with the academic context. Motivation and efficacy are enhanced when individuals perceive learning [through] progress and increased comprehension. (p. 2)

As mentioned previously and in concordance to the above quote, miscalibrated self-efficacy beliefs have a negative effect on student success, but calibration and harmony between all the elements quoted above can have numerous positive effects on self-efficacy. While only generalities have been made towards content areas to this point, some studies did look more closely at specific content areas and improving self-efficacy within that content area.

Jesus Garcia and Ana Maria de Caso looked solely at improving writing skills through a specific training program and whether that would improve a student's self-efficacy in writing. The study demonstrated that a student's performance can be "improved substantially by enhancing their writing self-efficacy." From this report it cannot conclude if it can be applied to other content areas, but investigating that would be a worthy cause. Jungert and Andersson (2013) examined the role that self-efficacy had in mathematics, native language literacy, and foreign language in students with and without learning disabilities. They did not specifically look at how programs could improve self-efficacy and performance as Garcia and deCaso did, but found that, "children in the non LD group had significantly higher self-efficacy in mathematics than children in both the MD [mathematics disability]-only and MD-RD [mathematics disability and reading disability] groups" with p < .001 (Jungert & Andersson, 2013). Improving a student's ability to accurately depict their abilities in a content area will improve their performance. This can be done through specific content programs and through teacher interactions with students.

Discussion

The cognitive theory of self-efficacy first got recognition in the 1970's with work published by Albert Bandura. Bandura has continued to publish books, research articles, and titles since, along with other scholars and researchers. Within the parameters of this literature review, 72% of the articles were released within the past 15 years. New contributions are constantly being made to this cognitive theory and researchers continue to make contributions through studies and literature reviews. This review provided an overview on how self-efficacy interplays with academic success, motivation, and effort in special education students. Also, how teachers, specialists, and instructional interventions can enhance and foster self-efficacy.

Self-efficacy in students with learning disabilities is an important factor and predictor of academic success. Calibration between self-efficacy and actual skills can determine if a student is committing an adequate amount of effort and preparation into a task to attain desired academic results. In many students with learning disabilities, the perception of attained skills and actual skills are not calibrated. Students are then left trying to understand why they fail and struggle with material that they thought they had mastered; or with projects that they felt they completed fully, expecting the best results.

Continued failure will hamper effort and motivation having grave effects on academic success. Students with learning disabilities have voiced their feelings and studies have indicated that through specific interventions and careful interactions between the teacher and student, that self-efficacy can be improved.

If a major focus of instruction moves towards improving students' level of self-efficacy, this will shift how special and general education teachers deliver instruction and services. If we can improve how a student tackles and prepares for things by providing them with a more realistic view of their skills (calibrating), we consequently bolster their belief and actual ability to tackle a problem. This is the best life skill to internalize and generalize.

As said previously, self-efficacy is indicative of students' success, miscalibration of self-efficacy effects performance and preparedness, and teachers' interactions with students can improve or impede the formation of sufficient self-efficacy. Moving forward we need to examine how educators can most effectively integrate this knowledge into daily lessons and curriculum currently implemented in the schools. In a time where another shift seems to be occurring in education, it is important for us to prepare our students and give them the gift of calibrated self-efficacy. If they do not have the confidence to work through a difficult task, how will they be the innovative leaders of the future?

Self-efficacy and its effects on content, specific and general academic achievement, effort and preparedness, and the differences between it in special education students and typical students have been studied. However, this literature review did not reveal any research studies that specifically honed in on whether a curricula, or area of focus within the curricula, could improve self-efficacy. Many of the studies looked at how self-efficacy is a predictor, or how it affects performance in academics. The only specific content areas examined were writing, reading, and reading comprehension. Mathematics was looked at in conjunction with native language literacy and foreign language in students. Without knowing how interventions or teaching strategies can be implemented on a broader spectrum, we are not able to conclude if such an intervention would counteract the perceived negative aspects of low self-efficacy across different academic areas. It is the suggestion of this author, that the interventions and strategies that were referenced or discussed in this review be implemented as they can within the parameters of an individual's job responsibilities.

Zimmerman (2000) stated, "two decades of research have clearly established the validity of selfefficacy as a predictor of students' motivation and learning." However, it is worth noting that not every article used in this review found there to be a significant difference between learning disabled students and non-learning disabled students when it came to attributing self-efficacy to academic success and the motivation to persevere. Pintrich, Anderman, and Klobucar found that "students who attributed their success to internal causes tend to have more positive motivational beliefs (less-anxiety, more of a mastery focus, and higher self-efficacy), more metacognitive knowledge and better comprehension scores than other students" (1994). There was no significant difference in whether the child was identified as having learning disabilities or not when the variable of self-efficacy was looked at in terms of student motivation and cognition (p < .32) (Pintrich, Anderman, & Klobucar, 1994).

Limitations of this literature review include that one research engine was used with specific age and academic setting parameters. Even though precautionary measures were taken to ensure that major themes or concepts were not missed, there is no guarantee that this is an exhaustive list of all published articles within the search criteria. Further research should be conducted to look at the implications of interweaving lessons aimed at improving the self-efficacy of special education students and within the general education classroom. Studies could also examine the effects of improving calibration. From this, longitudinal studies should be conducted to see the lasting effects of improved self-efficacy and calibration on life-success. The last major implication of this literature review would be to look at how teaching strategies could be manipulated or fine-tuned to foster growth and calibration of self-efficacy.

It is also important to look at metacognitive abilities and the role they play in regards to miscalibration of self-efficacy. There were a lot of leads to follow this line of reasoning that could not be given the consideration deserved due to time constraints. I believe that metacognition and its relationship with self-efficacy will be the next major area of focus for researchers examining the interplay between selfefficacy, learning, and student success.

A closing thought is that when a student is able to narrow the gap between performance and selfefficacy beliefs, they will feel more success and ability to complete a task they are presented with. This improvement will motivate the student to apply more effort to experience the success again. Consequently, the student will study more and most likely improve their academic performance. Again, this jump in academic performance will increase their skill set and their ability to complete more difficult tasks, further improving their self-efficacy beliefs. These positive experiences will start to outnumber the negative experiences. The student will pull on their prior successes to figure out why they failed or misjudged their ability. In turn, increasing their ability to look at themselves as learners and to complete tasks from different angles. This will improve their academic success and self-efficacy, thus promoting a cycle of students in developing a healthy sense of self-efficacy. It is imperative that further research is conducted in regards to the immediate and lasting effects of improved self-efficacy, hopefully leading to findings that will help education professionals further increase student self-efficacy and, thereby, provide more potential for students to calibrate self-efficacy within everyday instruction.

References

- Alvarez, V., & Adelman, H. S. (1986). Overstatements of self-evaluations by students with psychoeducational problems. *Journal of Learning Disabilities*, *19*(9), 567-571. Retrieved from Google Scholar.
- Bandura, A. (1997). Self-efficacy: The exercise of control. New York, NY: W.H. Freeman and Company.
- Battle, J. (1979). Self-esteem of students in regular and special classes. *Psychological Reports*, 44(1), 212-214. Retrieved from Google Scholar.
- Battle, J., & Blowers, T. (1982). A longitudinal comparative study of the self-esteem of students in regular and special education classes. *Journal of Learning Disabilities*, *15*(2), 100 102.
- Friedland, E.S., & Truesdell, K.S. (2006). "I can read to whoever wants to hear me read" buddy readers speak out with confidence. *Teaching Exceptional Children*, 38(5), 36-42. Retrieved from Google Scholar.
- Garcia, J. N., & de Caso, A. M. (2006). Changes in writing self-efficacy and writing products and processes through specific training in the self-efficacy beliefs of students with learning disabilities. *Learning Disabilities: A Contemporary Journal*, 4(2), 1-27. Retrieved from Google Scholar.
- Jungert, T., & Andersson, U. (2013). Self-efficacy beliefs in mathematics, native language literacy and foreign language amongst boys and girls with and without mathematic difficulties. *Scandinavian Journal of Educational Research*, *57*(1), 1-15. doi:10.1080/00313831.2011.62114
- Klassen, R. (2002a). A question of calibration: A review of the self-efficacy beliefs of students with learning disabilities. *Learning Disability Quarterly*, 88-102. Retrieved from Google Scholar.
- Klassen, R. (2002b). Writing in early adolescence: A review of the role of self-efficacy beliefs. *Educational Psychology Review*, *14*(2), 173-203. Retrieved from Google Scholar.
- Klassen, R. M. (2007). Using predictions to learn about the self-efficacy of early adolescents with and without learning disabilities. *Contemporary Educational Psychology*, *32*(2), 173-187. doi:10.1016/j.cedpsych.2006.10.001
- Klassen, R. M., & Lynch, S. L. (2007). Self-efficacy from the perspective of adolescents with LD and their specialist teachers. *Journal of Learning Disabilities*, 40(6), 494-507. Retrieved from Google Scholar.
- Lackaye, T. D., & Margalit, M. (2006). Comparisons of achievement, effort, and self-perceptions among students with learning disabilities and their peers from different achievement groups. *Journal of Learning Disabilities*, 39(5), 432-446. Retrieved from Google Scholar.

- Lackaye, T., & Margalit, M. (2008). Self-efficacy, loneliness, effort, and hope: Developmental differences in the experiences of students with learning disabilities and their non-learning disabled peers at two age groups. *Learning Disabilities: A Contemporary Journal*, 6(2), 1-20. Retrieved from Google Scholar.
- Lackaye, T., Margalit, M., Ziv, O., & Ziman, T. (2006). Comparisons of self-efficacy, mood, effort, and hope between students with learning disabilities and their non-ld-matched peers. *Learning Disabilities Research Practice*, 21(2), 111-121. Retrieved from Google Scholar.
- Margolis, H., & McCabe, P. P. (2004). Self-efficacy: A key to improving the motivation of struggling learners. *The Clearing House*, 77(6), 241-249. Retrieved from Google Scholar.
- Nelson, J. M., & Manset-Williamson, G. (2006). The impact of explicit, self-regulatory reading comprehension strategy instruction on the reading-specific self-efficacy, attributions, and affect of students with reading disabilities. *Learning Disability Quarterly*, 213-230. Retrieved from Google Scholar.
- Pintrich, P.R., Anderman, E. M., & Klobucer, C. (1994). Intraindividual differences in motivation and cognition in students with and without learning disabilities. *Journal of Learning Disabilities*, 27(6), 360-370. Retrieved from Google Scholar.
- Schunk, D. H. (1989). Self-efficacy and cognitive achievement implications for students with learning problems. *Journal of Learning Disabilities*, 22(1), 14-22. Retrieved from Google Scholar.
- Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25(1), 82-91. doi:10.1006/ceps.1999.101

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