



# Teachers' Self-Efficacy- A Conceptual Framework

**Anupam Bansal**, Research Scholar, School of Education, K.R. Mangalam University Delhi-NCR  
Gurugram, Haryana

**Dr. P. C. Jena**, School of Education, K.R. Mangalam University Delhi-NCR Gurugram, Haryana

## Abstract

Teacher self-efficacy is task-specific, multidimensional, and different across different functional domains. According to Bandura, self-efficacy may be examined across activities and situations based on its level (difficulty level), generality (task specificity), and strength (degree of assurance). This article provides a conceptual framework of Teacher Self-efficacy with reference to its literature review with respect to instructional process. Basically Teacher self-efficacy deduced as the teacher's capability to teach their students productively and competently. Development of students, educational organization and country can be hindered by unproductive teachers. Because productiveness of a teacher is directly proportionate with the teacher self-efficacy. So we can say that self-efficacy is essential for effective teaching. In accumulation self-efficacy significantly affected teachers' success in their abilities to teach, skills of classroom management and problem solving capabilities. The four factors listed in earlier research—mastery experience, vicarious experience, verbal persuasion, and physical and emotional states—have all been linked to the growth of self-efficacy. There is currently a dearth of longitudinal and experimental research on the independent impact of each of the four sources on teacher self-efficacy, despite the abundance of evidence indicating teacher self-efficacy and collective self-efficacy are significant for teacher and student performance and certain intervention Programmes for teachers in training, career teachers, and upon-school aspects exhibiting impressive outcomes.

*Key Words: teacher self-efficacy, student's academic outcomes, collective teacher efficacy, student performance, mastery experience, vicarious experience, verbal persuasion, physiological or emotional status, teacher training.*

## 1. Introduction

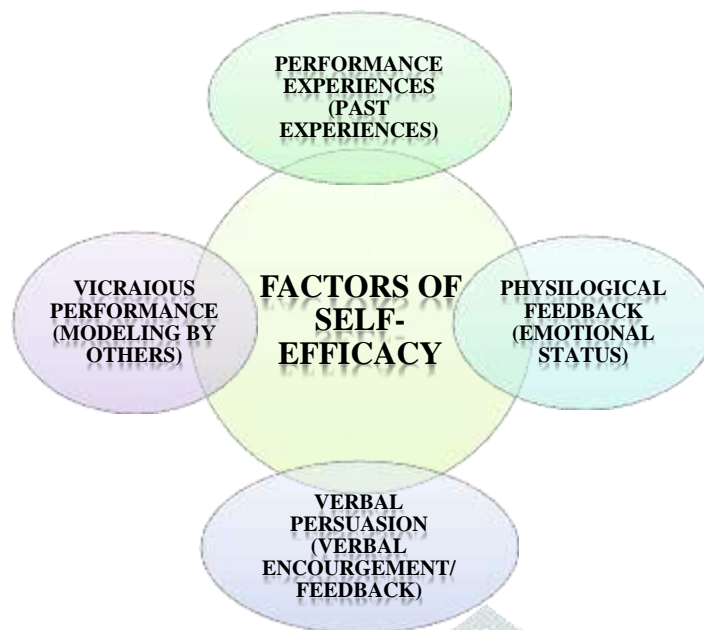
Self-Efficacy is represented as an Individual's conviction in their skill to develop and executes a desired plan of action in order to accomplish an objective. It may be found in both personal and work spheres of human activities and performance. The notion of self-efficacy introduced by Bandura (1977), which is derived from the social cognitive idea, states that self-efficacy perceptions are nothing more than judgments of one's capacity to successfully carry out certain tasks and behaviours. One can arrange cognitive and social behaviour skills into integrated publications of movement using its generative functionality. "Self-efficacy refers back to the assurance people have in their skills to succeed at a certain activity. People with an excessive level of self-efficacy are more inclined to take on challenging tasks, stick with them for longer,

and exert more effort during the process. When highly effective individuals fail, they typically attribute their performance on wasted effort or a poor environment. They attribute their achievement to their abilities when they are successful. The conviction that people have in their abilities to carry out specific levels of average performance that have an impact on their lives is known as self-efficacy. Practically speaking, Bandura (1986) advised that effectiveness expectations can also predict whether or not one's motion might be launched, the amount of effort put forth in pursuing that hobby, and the degree of patience displayed in the "face of barriers."

Teacher self-efficacy mainly interpreted as the teacher's competency to teach their students productively and competently. Usually when we talk about effective teaching it refers or applied to the knowledge and skills about their subject area, technology etc. But efficacy of a teacher is different from teaching effectiveness and it should be distinguished from the competency of the teacher. In broader terms Teacher's Self-Efficacy indicates their professional knowledge and skills in order to improve their students' grades. Investigations shows that higher self-efficacy inhibits better use of professional knowledge and skills and in contrary we can say that lower self-efficacy underlines and enables the effective use of professional knowledge and skills. While teacher self-efficacy illustrates how a teacher's views connect to a student's academic growth, collective teacher efficacy aids in understanding how faculty and whole schools have varied effects on student results. As a result, it is extremely pertinent to the teaching setting to systematically investigate methods for raising teacher efficacy. The degree to which teachers believe they have some control over the reinforcement of their students' behaviour, i.e., whether reinforcement is controlled by them or by the environment, is characterized by Rotter's Social Learning Theory (1966) as the efficacy of the teacher. It was assumed that student effort and motivation had a significant role in reinforcing instructional behaviour. Therefore, educators who felt highly effective believed they had some degree of control over, or at the very least a major impact on, student motivation and achievement. The extent to which people believe they can control the events that impact them is determined by both internal and external variables, according to Rotter (1966). Using the locus of control, he illustrates how humans see their interaction with the world. As a result, self-efficacy ultimately influences a character's behaviour, thought process, and motivation to worry about playing specific roles. Additionally, it displays how capable they are at doing particular tasks.

The aim of this article is to provide an overview of teacher self-efficacy. The paper is divided into four major sections- in the second section we discussed factors of the self-efficacy. The third section is divided into three parts: the first part contains the literature review of teacher's self-efficacy, the second part contains effective teaching & self-efficacy and third part has dimensions of teacher self-efficacy on the basis of reviews. The last and the fourth sections conclude results with the suggestions to boost up the self-efficacy.

## **2. Factors influencing the Self-Efficacy of a teacher:**



**Figure 1 showing Factors influencing the Self-Efficacy of a teacher**

**2.1 Performance experiences** are seen to be the most effective way to develop persistent self-efficacy expectations (Bandura, 1997). In the behavioural sphere, accomplishments strengthen self-efficacy while failures erode it. However, failures have a less negative impact on self-efficacy if strong self-efficacy beliefs have been developed, according to social cognitive theory (Bandura, 1986). The degree to which past experiences increase a person's sense of self-efficacy relies on a variety of variables, including beliefs about one's own talents, the perceived difficulty of the job, the amount of effort put forth, the amount of outside assistance received, temporal patterns of success and failure, and the cognitive structure of these variables (Bandura, 1997). Experiences with competence are significant not only at the level of the person but also at the level of organisations. For instance, collective self-efficacy views are greatly influenced by mastery experiences, as evidenced by the fact that past academic triumphs that instructors as a group have shared strengthen their faith in the faculty's capacities (Goddard et al., 2004).

**2.2 Vicarious experiences** are defined as the act of observing a social model do an action that sets off social comparison processes. However, self-modeling, in which a person watches themselves complete a task, may also strengthen individual self-efficacy views (Bandura, 1997). Thus, it is crucial to distinguish between mastery experiences, which refer to one's own direct and active experiences in a classroom situation rather than the observation of own behaviour, and vicarious experiences, which refer to observations of (own) behaviours (e.g., observing own teaching behaviour in class using classroom videography). When people feel self-doubt themselves, coping models that show witnesses their doubts and shortcomings while improving their performance have a stronger self-efficacy-boosting effect than mastery models that display flawless performance (Schunk, 1987). Vicarious experiences are considered to be a significant source of self-efficacy not just for the individual teacher but also for schools as entities that may learn by adopting the successful educational initiatives of other institutions (Goddard et al., 2004; Morris et al., 2017).

**2.3 Verbal persuasion** alone has very modest impacts on gains in teacher self-efficacy, but it can encourage people to exert more effort when challenges emerge, therefore reducing the detrimental consequences of conscience (Bandura, 1997). As a result, telling a teacher who lacks confidence in their abilities that they have a lot of potential might motivate them to exert the necessary effort to complete the assignment effectively. However, if further attempts are unsuccessful, self-efficacy beliefs based only on verbal persuasion will only hold someone for a short while. Therefore, it would be ideal if a skilled teacher guided a less experienced teacher through mastery experiences in difficult circumstances. In the context of teacher self-efficacy, verbal persuasion therefore refers to affirmation or particular performance assessment from a



supervisor or a colleague or to conversations in the teachers' lounge on instructors' capacity to affect pupils (Goddard et al., 2004).

**2.4 Physiological feedback (Emotional Status)**, the weakest source of information for self-efficacy is physiological and emotional feelings. High physical and emotional signs of excitement or anxiety (such as nausea, sweating, or dizziness) might be taken as a sign that one is incompetent. As a result, emotional arousal before to or during task engagement might undermine beliefs in one's own efficacy (Henson, 2001). At the level of perceived teacher self-efficacy, it may be claimed that groups of educators and organisations with strong beliefs in their abilities to operate as a group can withstand pressure and crises and carry on without suffering negative effects since obstacles are seen as manageable. As a result, it stands to reason that affective states would also influence group-level processes. For instance, when teachers feel unprepared and overwhelmed by new policies that must be implemented in their schools, this may have an impact on their perceptions of how the institution as a whole and their coworkers will handle these challenges. Reducing stress and negative emotional arousal and emphasising that physical and emotional symptoms shouldn't be mistaken for signs of weakness or inadequacy might help teachers believe in their own abilities more (Bandura, 1997). Additional research is necessary to discover if all sources of self-efficacy beliefs (such as emotional states) are relevant at the group level (Goddard et al., 2004).

The "Performance Product" or "enactive practice," in which self-efficacy for behaviour is improved by successfully implementing the conduct, has the most impact on self-efficacy. Performance results are the most important base of self-efficacy, claims Bandura (1977). When other people who are similar to you are witnessed to efficaciously carry out performance, it is the second-most effective motivation. They get "stated persuasion" or "social persuasions" from other people, which, if realistic, might inspire actions that are more likely to enhance efficacy via success. This is the third establishment of persuasion. Finally, emotional and physiological variables like stress might have an impact on self-efficacy views. In this approach, these foundations aid people in determining whether they have the capacity to transmit definite responsibilities or not.

Self-efficacy is task-specific, multidimensional, and different across different functional domains. According to Bandura, self-efficacy may be examined across activities and situations based on its level (difficulty level), generality (task specificity), and strength (degree of assurance). Due to the possibility that an individual may have a higher degree of self-efficacy in one area of functioning and a lower one in another.

### 3. Literature Review

#### 3.1 Defining Teacher Self-Efficacy

The definition of teacher self-efficacy is the appraisal of one's own ability to accomplish desired results of student engagement and learning, especially with problematic or disinterested pupils (Tschannen-Moran & Woolfolk Hoy, 2001). High self-efficacy teachers are more receptive to novel concepts and innovative teaching techniques; they demonstrate a higher degree of preparation and organisation; they are more constructive when responding to mistakes made by their students; and they are more tenacious when faced with challenges (Tschannen-Moran, Hoy, & Hoy, 1998). Since teachers' personal characteristics, such as their gender and education level, as well as classroom characteristics, such as performance level, as well as school and principal characteristics, such as the principal's work history, greatly influence the teaching context, teacher self-efficacy is a theoretical construct that is very relevant in that context (Fackler & Malmberg, 2016). Research investigated that high attaining students cautioned higher self-efficacy than low reaching students (Thongnoun and Duanpen, 2002). Investigation observed that if teachers at urban, rural and suburban elementary schools differed drastically in their sense of self-efficacy. It has become located that, teachers of the urban elementary school displayed drastically decrease scores than of suburban and rural schools regarding to their self-efficacy (Net Page, Beth, and Judi, 2014).

Teacher self-efficacy is being researched as a private resource aspect that might shield from stress and decrease the risk of immobility. Improvements in cognitive function and functioning were influenced by perceived self-efficacy (Bandura, 1993). Investigations also showed that instructors' self-efficacy had an influence on their students' academic success and the effectiveness of their instruction. Self-efficacy helps instructors succeed in the classroom (Bandura, 1993). As a result, we may conclude that a teacher's self-efficacy has a consequence on both his/her own as well as their pupils' overall performance. Studies revealed the self-efficacy of high school teachers with respect to age, gender, teaching experience, qualification, subject taught and type of management of the schools, it has been found that the high school teachers possessed a fairly high level of self-efficacy (Kumar & Papaiah, 2009). Researchers observed that "trainer self-efficacy, collective efficacy, and burnout dimensions were in another way related to both school setting factors and instructor work enjoyment" (Skaalvik and Skaalvik, 2010). The findings revealed "amazing differences in efficacy views of male and female, B.Ed. and M.Ed., eternal and brief, elementary and secondary, younger and older instructors with respect to study room (Shaukat and Iqbal, 2012).

### 3.2 Effective Teaching and Self-Efficacy

Effective teachers with constructive mindset are more engaged in a range of activities that motivate and assist their students in achieving their goals. They also provide underprivileged pupils with the appropriate supervision (Gibson & Dembo, 1984). They spend more time motivating students to create more ambitious learning objectives for themselves (Bandura, 1997). A dedication to one's career Effective educators has a high level of professionalism. They are more dedicated to their careers, pupils, coworkers, and school administration. High teacher efficacy teachers are more committed to their career and more satisfied with their jobs. Effective teachers are believed to frequently be passionate about and more focused on their lessons (Guskey, 1984; Muhandi, 2017). It has been found that many teachers are eager to use cutting-edge methods in their lessons to help pupils learn more. According to research, effective teachers having dedication and effort are devoted to their subject matter. They usually execute unique experiments in their schools to meet the demands of the students. It is believed that their training is more rational and innovative (Guskey, 1984). Furthermore, such teachers make a greater effort to support students who are aiming for outstanding grades (Gibson & Dembo, 1984). They invest more work into planning, organising, and carrying out their teaching methods in order to improve the efficiency of the teaching and learning process. One of the most apparent qualities of good teachers is emotional intelligence. According to studies by Amirian and Behshad (2016), Penrose, Perry, and Ball (2007), Mohammadi and Saravani (2015), and others, effective teachers possess emotional intelligence. They are also shown to be extremely resistant and obstinate. Teachers with high self-efficacy beliefs, focus on mastery of the concept and enhanced learning rather competition among the learners in the class room (Lazarides, Buchholz, & Rubach, 2018) and students learn through cooperative experiences in the perceive schools as a community (Woolfolk, 1990). Effective teaching behaviors are highly relevant in classroom in relation to the self-efficacy rather adequate outcome magnitudes for these relations (Klassen & Tze, 2014; Zee & Koomen, 2016). Though, there has no substantial relations between teacher self-efficacy and instructional practice as shown by a number of studies, for example, for teacher-student relationship (De Jong et al., 2014; Yoon, 2002), or emotional support (i.e., Guo, Piasta, Justice, & Kaderavek, 2010; Lazarides, Fauth, Gaspard, & Göllner, 2019; Pakarinen et al., 2010). However, extensive investigations also did not confirm that teacher self-efficacy is substantially related to student-perceived classroom management (Holzberger, Philipp, & Kunter, 2013; Praetorius et al., 2017), or to the extent that teaching provides pupils with cognitive challenge and stimulation (Holzberger et al., 2013). These contradictory results may be explained by the wide range of career stages that were sampled, the

evaluation of teacher self-efficacy, which frequently uses generic rather than task-specific measures, a paucity of empirical investigation, and a focus on different student groups or different grades. Together, the examination of the psychological mechanisms underlying these relationships and the investigation of the role that teacher self-efficacy plays for both student and teacher perceived instructional behaviors represent significant challenges for future research. These issues should be dealt with using longitudinal designs that include teachers, students, and outside observers.

Thus, teachers have high self-efficacy become effective in their task that further set goals for themselves, plan and execute different strategies to reach the goals. Also effective teacher plan and set aims for their students. Because a teacher must observe that the task they perform is pertinent and meaningful in order to identify effective in their task. It implies that they observe their selves progress in their task for productive conjectures for students deeds and attainments. It is the prime responsibility of the teacher for better education of the students. Consequently, when a teacher feels satisfied about his/her teaching, students conduct and about him/her, it is advantageous for them. Then he/she must identify control and confidence in his/her capabilities to improve their pupil's grades. To conclude we can say that constructive teacher sets their goals and strategies for student's better learning and grades.

### 3.3 Dimensions of Teacher's Self-Efficacy

The six dimensions of the teachers' Self-Efficacy are as follow:



- (a) Self- Drive: It refers to the perception/belief of the teachers about their interest and desire to influence the students' learning.
- (b) Commitment: It refers to the teacher's perception about their attachment with the teaching learning process.
- (c) Coping with challenges: It refers to the teacher's perception about their capability to be persistent and resilient in facing different challenges.
- (d) Decision-making: It refers to the teacher's perception about their capability to take decisions related to teaching learning process.

- (e) Classroom Instructions: It refers to the teacher's perception about their capability to teach the students in a particular classroom.
- (f) School climate: It refers to the perception of teachers about their capability to be influenced by a particular school climate.

#### 4. Results and discussions

Self-efficacy is known as the convictions of individual's capabilities to succeed. This is a major factor for instructor's success for effective teaching. Cognitive improvement and functioning is contributed by perceived self-efficacy (Bandura, 1993). Investigations revealed that teaching effectiveness and academic accomplishments of the students affected by the self-efficacy of a teacher. Instructional success of a teacher contributed by the self-efficacy (Bandura, 1993). Consequently, self-efficacy of a teacher influences the overall conduct of the teacher's task and his/her students. According to a study of relevant literature, studies on self-efficacy programmes are based on factors including positive teaching behaviour of students' accomplishment, self-esteem, attitude towards teaching, and self-efficacy, among others.

As a result, an educator's capacity to efficiently instruct relies undoubtedly on their strong sense of self. In addition to these factors, socio-demographic traits including gender, experience, marital status, educational field, and school location also affect how well teachers teach. School teachers' work motivation in terms of teaching efficacy has been studied by researchers like Gupta and Gehlawat (2013), Shah et al. (2012), Akpan (2013), Abbah (2014), Georger et al. (2017), Habib (2019), Nurzanna, Daryanto and Rahman (2020), Ogonda et al. (2015), Beri and Beri (2016), & Gulab and Mehta (2016). In addition, studies by Moe et al. (2010), Butt et al. (2012), Veresova and Mala (2012), Jain (2014), Colson et al. (2017), Malik and Anju (2015), Digap (2016), and Buric et al. (2020) examined the function of work and employment in assessing the success of teaching.

The advancement of students, educational institutions, and the society can all be hampered by inefficient teachers. A teacher's view of his or her skills and aptitude, in addition to their motivation to work, affects how well they are perceived in the classroom. As a result, self-efficacy is fundamental for effective teaching. A teacher's performance, or successful teaching, is significantly influenced by their self-efficacy in their ability as instructors, classroom management skills, decision-making abilities, and problem-solving capabilities. High self-efficacious teachers are also better at overcoming failures and obstacles. Additionally, having a high sense of self-efficacy boosts one's mental sharpness, wellness, and self-assurance.

#### References

1. Andersen, A.M., Dragsted, S., Evans, R.H., & Sorensen, H. (2004). The relationship between changes in teachers' self-efficacy beliefs and the science teaching environment of Danish first-year elementary teachers. *Journal of Science Teacher Education*, 15(1), 25-38.



2. Anderson, W.R.B. (2005). Self efficacy: Perceptions of high school teachers related to adolescents at risk for suicide. Dissertation Abstracts International: Section B: The Sciences and Engineering, 65 (9-B), 4814.
3. Anderson, M.B.G., & Iwanicki, E.F. (2013, October). Teacher motivation and its relationship to burnout. *The Journal of Leadership for Effective and Equitable Organizations*, 49(4).
4. Andrew, S. (1998). Self-efficacy as a predictor of academic performance in science. *Journal of Advance Learning*, 27(3), 596-603.
5. Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behaviour change. *Psychological Review*, 84, 191-215.
6. Bandura, A. (1986). *Social foundations of thought and action: A Social cognitive theory*. Englewoods Cliffs, NS: Prentice-Hall.
7. Bandura, A. (1993). Perceived self efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148.
8. Bandura, A. (1995). *Self-efficacy in changing societies*. New York: Cambridge University Press.
9. Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
10. Bandura, A. (2000). Exercise of human agency through collective efficacy. *Current Directions in Psychological Science*, 9, 75-78.
11. Bandura, A. (2007, March 22). Teachers' self-efficacy and self regulation. *Academic Exchange Quarterly*. Retrieved from [www.the free library.com/Teachers'+selfefficacy+and+self regulation\\_80165912661-](http://www.the-free-library.com/Teachers'+selfefficacy+and+self+regulation_80165912661-)
12. Bandura, A., & Schunk, D.H. (1981). Cultivating competence, self-efficacy and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, 41(3), 586-598.
13. Bandura, A., & Wood, R.E. (1989). Effect of perceived controllability and performance standards on self -regulation of complex decision -making. *Journal of Personality and Social Psychology*, 56, 805-814.
14. Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.
15. Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall.
16. Bandura, A., & National Institute of Mental Health. (1986). *Prentice-Hall series in social learning theory. Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
17. Bandura, A. (1990). *Multidimensional scales of perceived academic efficacy*. Stanford, CA: Stanford University Press.
18. Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
19. Bandura, A. (2006). Guide for constructing self-efficacy scales. In T. Urdan & F. Pajares (Eds.), *Self-efficacy beliefs of adolescents* (Vol. 5, pp. 307–337). Greenwich, CT: Information Age Publishing.
20. Brouwers, A., & Tomic, W. (2001). The factorial validity of scores on the teacher interpersonal self-efficacy scale. *Educational and Psychological Measurement*, 61(3), 433-445.



19. Caprara, G. V., Barbaranelli, C., Borgogni, L., & Steca, P. (2003). Efficacy beliefs as determinants of teachers' job satisfaction. *Journal of Educational Psychology*, 95(4), 821–832.
20. Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44(6), 473–490.
21. Dicke, T., Parker, P. D., Marsh, H. W., Kunter, M., Schmeck, A., & Leutner, D. (2014). Self-efficacy in classroom management, classroom disturbances, and emotional exhaustion: A moderated mediation analysis of teacher candidates. *Journal of Educational Psychology*, 106(2), 569–583.
22. Friedman, I. A., & Kass, E. (2002). Teacher self-efficacy: A classroom-organization conceptualization. *Teaching and Teacher Education*, 18, 675–686.
23. Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569–582.
24. Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal*, 37(2), 479–507.
25. Lazarides, R., Buchholz, J., & Rubach, C. (2018). Teacher enthusiasm and self-efficacy, student-perceived mastery goal orientation, and student motivation in mathematics classrooms. *Teaching and Teacher Education*, 69, 1–10.
26. Lazarides, R., Fauth, B., Gaspard, H., & Göllner, R. (2019). Teacher motivation and change in student-perceived teaching quality after the transition to secondary school. manuscript submitted for publication.
27. Lazarides, R., Watt, H. M. G., & Richardson, P. (2019). Longitudinal influences among teachers' self-efficacy, instructional behaviors and teaching contexts from beginning until mid-career. manuscript submitted for publication.
28. Lanccaster J. and Brain.A. (2007): Study of design of inclusive education courses and the self-efficacy of pre-service teacher education students. Retrieval September 2017. <http://www.eric.edu.org.ERI#EJ 764332>.
29. Malik, S. A. (2017). Self Efficacy Of Private And Government Elementary School Teachers In Ganderbal District. *Quest International Multidisciplinary Research Journal*.
30. Magrio C. and Sembrano, J.(2007): A study of teacher efficacy and characteristics on teaching effectiveness, performance and use of learner centred practices. Retried December 2018 from <http://www.philijol.info/index.php/ TAPER/ article/view/93/90>
31. Mogowe and Olive (2007): A study of self-efficacy in lanugae learning students <http://www.philijol.info/index.php/ TAPER/ article/view/67/26/01>
32. Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research*, 66(4), 543–578.

33. Ross, J. A., & Bruce, C. (2007). Professional development effects on teacher efficacy: Results of randomized field trial. *The Journal of Educational Research*, 101(1), 50.
34. Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology*, 99(3), 611–625.
35. Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26(4), 1059–1069.
36. Tschannen-Moran, M., & Barr, M. (2004). Fostering student learning: The relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools* 3(3), 189–209.
37. Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202–248.  
<https://doi.org/10.3102/00346543068002202>
38. Tschannen-Moran, M., & McMaster, P. (2009). Sources of self-efficacy: Four professional development formats and their relationship to self-efficacy and implementation of a new teaching strategy. *The Elementary School Journal*, 110(2), 228–245.
39. Tschannen-Moran, M., & Woolfolk Hoy, A. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*, 23(6), 944–956.
40. Warner, L. M., & French, D. (2019). Self-efficacy interventions. In M. Hagger, L. Cameron, K. Hamilton, N. Hankonen, & T. Lintunen (Eds.), *Handbook of behavior change*. Cambridge, U.K.: Cambridge University Press.
41. Woolfolk, A. E. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education*, 6(2), 137–148. doi:[https://doi.org/10.1016/0742-051X\(90\)90031-Y](https://doi.org/10.1016/0742-051X(90)90031-Y)

**Websites:**

- [www.google.com](http://www.google.com)
- [www.eric.com](http://www.eric.com)
- [www.teacherplanet.com](http://www.teacherplanet.com)
- [www.wikipedia.org](http://www.wikipedia.org)
- <https://scholar.google.com/>