

## EVALUATION OF 5 DIFFERENT DIMENSIONS OF SELF-EFFICACY OF ADOLESCENTS BASED ON GENDER

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### **Abstract**

The adolescent age experience numerous emotions such as frustration, anxiety, conflicts, worries and peer pressure. These emotions force the students to lose faith in themselves and hence leads to poor decision power. Therefore, it is mandatory for a youth to have develop strong self-efficacy in order to face the challenges of the life in a positive way. The research was aimed to evaluate the self-efficacy of students of secondary school based on the gender. A pilot study of 35 students was done to investigate the self-efficacy of boys and girls in the CBSE school of district Karnal. For collecting the responses, the scale developed by Dr S. Dhaiya and N. Kumari (2018) (Student self-efficacy scale), was used and quantitative study was done by applying t-test. The findings suggest that there is no such significant difference between the self-efficacy of the girls and boys. Moreover, self-efficacy score of girls was found low as compared to boys. Moreover, the score of girl's self-efficacy falls under the category of low self-efficacy, as compared to that of boys which falls under the category of average self-efficacy. These studies will help the educators and policymakers to design such kind of educational activities which will help the students to improve their self-efficacy scores which can eventually give a positive direction towards their life.

**Keywords:** Social emotional learning, Secondary School Students, Self-Efficacy.

### **Introduction**

The education plays a crucial role in the development of an individual. Development is not restricted to only physical dimensions, rather it is a considered for other aspects also such as mental, social, emotional, spiritual dimensions. The students of senior secondary students experience numerous changes and emotional upheaval because of physical changes, peer pressure and future pressure. Many a times, they lose hope and belief among themselves after experiencing the competitive and challenging situations and are not able to achieve their goals. For this aspect, it is mandatory for the society to strengthen the self-efficacy of the secondary school students, so that they can overcome the challenges and move towards their goal. According to Heslin and Klehe, 2006, self-efficacy provides an adolescent a belief to design strategies, make targets and to achieve desired targets. In nutshell, it can be stated that a strong self-efficacy of an individual helps in improving the performance of an individual. There has been a lot of researches done by psychologists in the field of self-efficacy from different perspective such as dynamics of self-efficacy in various environment settings, different paths of development of self-efficacy and so on. Moreover, it has been stated that self-efficacy is directly related to the fact that for how long one

can stick to the targets. The level of self-efficacy can be high and low among the individuals, and it gives an idea regarding the will power of an individual whether the individual will select the challenging task or will consider it as impossible task.

Teachers can stimulate the critical thinking, comprehension, which leads to the increase in the self-efficacy among the students. This can be done through various classroom activities such as dialogic, asking them open ended questions, positive reinforcement, increased availability and flipped classrooms.

When an individual enters the adulthood with poor self-management skills and self-doubts, they find many aspects of their life stressful and depressing. Therefore, before the transition to adulthood, adolescents should be in aware of what self-efficacy is and they should be taught in such a manner in order to enhance their self-efficacy score to have a happy life ahead.

### Dimensions of Student's self- efficacy (Fig 1)

- 1) Physical Self-efficacy
- 2) Academic Self-efficacy
- 3) Social Self-efficacy
- 4) Emotional Self-efficacy
- 5) Spiritual Self-efficacy

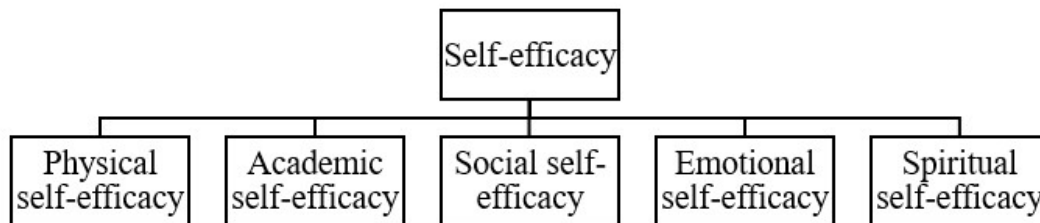


Fig 1. Dimensions of Self-efficacy evaluated in the scale of Dr S Dhaiya and Kumari, 2018

**1) Physical Self-efficacy:** It refers to the individual views with respect to their physical abilities. It highlights their opinions about the physical tasks, how they have performed them, whether they are encouraging or discouraging the physical tasks. The physical self-efficacy is the determinant of increased efforts and the performance of a particular physical task (Gill, 2007).

**2) Academic self-efficacy:** It refers to the individual learning attitude with confidence and competence while performing a classwork (Bandura, 1997; Eccles & Wigfield, 2002; Linnerbrink & Pintrich, 2002). They suggested that this is a belief of an individual towards attaining a specific target in their academic front. Therefore, this self-efficacy is more focussed on achieving academic goals not with general belief system (Linnerbrink & Pintrich, 2002). Various researchers such as Wigfield & Karpathian, 1991; Schunk, 1991 also supports this viewpoint. Academic self-efficacy and academic self- concept are debatable terminologies for the researchers. Many researchers consider both terms as interchangeable (e.g., Pajares, 1996) stated that within the same areas such

as Maths, self- efficacy in the academic field and academic self-concept are both almost similar concepts and can be interchanged and they focus and measure the same cognitive parameter. In contrast to this viewpoint, some researchers claim that academic self efficacy and academic self-concept have entirely different concepts. Academic self-concept is more related to self esteem and evaluation of self (Linnerbrink & Pintrich, 2002).

**3) Social self-efficacy:** One researcher Smith & Betz in 2000 stated that social self-efficacy is an individual's response towards society. It focuses on his or her capability to interact with the society and how they maintain the personal relationship with the individuals of the society. Social self-efficacy also includes the social behaviours such as handling social conflicts, developing relationships and friendships, interaction in the group, meeting new people etc. According to Gecas (1989), it is concerned with initiating social contact and developing new friendships. Social self-efficacy helps an adolescent to develop a healthy relationship with that of society. It also impacts the psychological behaviour and well-being of an adolescent. It has been claimed that the individuals with high social self-efficacy have less social phobia as compared to the individuals who have less social self-efficacy. It also gives us an idea how an individual is adjusted in the surrounding areas and in the society.

**4) Emotional self-efficacy:** Emotional self-efficacy is one of the vital element of functions of emotional of an individual, with consistent focus on the self-belief an individual with respect to the managements of emotions. Emotional self-efficacy focusses more on managing of emotions at the internal level, rather than working on superficial levels. Different age- groups have different ways to express their emotional self-efficacy. Emotional self-efficacy plays a crucial factor in maintaining the good health of your mind and resiliency in managing and coping with negative emotions that arises during the period of adolescents. Muris in 2002, stated that the individuals who have higher level of self-efficacy are known to have low level of depression and anxiety symptoms. Caprara, Regalia and Bandura in 2002, stated that if an individual fails to control his or her emotions, it can result in a negative social behaviour.

**5) Spiritual self-efficacy:** Spiritual self-efficacy focusses on the idea of belief in spiritual life. According to Ursula, 1999, the spiritual life of an individual is based on the fear from the God, that motivates an individual to move on the right path. Apart from that there should be love and submission for God and urge to search the spiritual path of life. Therefore, spiritual self-efficacy submission towards the grace of God and having moral values.

### **Review of Related Literature**

Self-efficacy can be defined as individual's competence for organising and applying the cognitive, behavioural, or social competencies that are required for performing a task successfully (Brunning, Colvin & Shell, 1995). According to Bandura's theory, 1977, self-efficacy is a belief system of an individual about the ability to produce desired level of outcome that affects the lives of an

individual. Self-efficacy is considered as a crucial role in students' life as well as the future. The extent of self-efficacy is also related to various attitudes in learning. It has been explored by the researchers. One such research was done by Abu-Tineh, Khasawneh, and Khalaileh in 2011 done the students stated that the students who have low level of self-efficacy is more prone to engage in discipline problems in school. Various researchers such as Ashley and Rittmayer, 2003; and Wooley, 2005, stated the discipline and some patterns of behaviour such the problems associated with the behaviour can be analysed with the self-efficacy. Human actions and behaviours can be guided well using self-efficacy. According to the reports, the students whose self-efficacy is more, are more aware of their learning and conduct less discipline problems. It can be summarised that self-efficacy has been considered as the prominent cause and variable of discipline related issues. Hence, it becomes significant for the researchers to explore and analyse the student's self-efficacy scores (Siti Salwa Bte Md. Sawari, Norwati Bte Mansor, 2014).

It has been reported in several studies that there has been a significant difference in the scores of self-efficacy of the boys and girls. Simultaneously, several studies claimed that there is no significant difference between the self-efficacy of the male and females. In 2006, research was conducted by a researcher Abdullah et al. to explore the relationships between student's self-efficacy and their English language achievement with respect to the variable gender. According to the research carried out on 1,146 students, who belonged to the 8 different secondary schools located in the district of Petaling, Selangor and concluded that females possess higher level of self-efficacy as compared to males. Moreover, McKenzie (1999), also claimed that there is a positive correlation between the two variables that is gender and self-efficacy of the students. However, another study conducted in 2013 by Shikullaku on 180 students aging between 19-31 years, concluded the results in his studies that there is no such significant difference between the scores of self-efficacy of girls and boys. Ochieng in 2015 explored the relationship between two other variables such as self-efficacy and academic achievement of students with respect to the subject maths. The study was done on 200 students (101 boys and 99 girls). There was a weak correlation between these two variables. According to Tomas et al., 2020, self-efficacy plays a prominent role in determining the academic decisions and the outcomes of that decisions.

With respect to education enterprise, academic self-efficacy plays a significant role (Arens et al., 2022) and it impacts the student's thoughts and behaviour. Strong self-efficacy leads to the development of courageous attitude towards academic challenges, while weak self-efficacy leads to the development of fear and anxiety and the students withdraw themselves from taking active participation in the academic activities (Scherrer and Preckel, 2019).

Many researchers have highlighted the spirituality as the factor that shows the inner path to the individual, eventually leading to discovery of essence of their being, or the deepest values and meanings by which people live (Oyewumi, Adebomi (Ph.D) and Anieke Lazaesus, 2016, Sheldrake, 2007; Bellamy, Jarrett, Mowbray, Macfarlane, Mowbray, & Hotler, 2007).

Another variation of seeing self-efficacy is that it's relationship with that of self-regulation capacity of the students, which leads to the development of motivation and the willingness approach to learn and grasp in all kinds of circumstances (Murphy & Alexander, 2000). Self-

efficacy is also related with metacognition, which leads to the development of the thought of thinking about own thoughts and managing the cognitive process (Metcalf & Shimamura, 1994). The academic performance of the individuals can be enhanced by the developing the self-efficacy among students which leads to the better handling of the difficulties being faced by the students, by making effective utilization of the surrounding resources (Dweck, 1999). Bandura gave the theory of self-efficacy, called as social cognitive theory of Bandura (Bandura, 2001). He also stated that all the dimensions of the behavioural changes can be proposed by the self-efficacy theory (Bandura, 1977, 1982). Empirical reseraches on self-efficacy have proved that self- efficacy is positively correlated with the behaviour of an individual associated with psychological and therapeutic aspects (Bandura, 1977; Bandura, Adams, &Beyer, 1977; Bandura, Adams, Hardy &Howells, 1980). It can be concluded that for bringing out the best results among the school students, self-efficacy can be proved as a potential tool. Therefore, the more and more needs to be explored in the field of self-efficacy (Venateswar Meher, 2020).

### **Objectives**

1. To explore the Self-efficacy of students of senior secondary classes on the basis of gender.
2. To explore the score of self-efficacies of senior secondary school students with respect to gender.
3. To find out which component of self-efficacy is low and high among senior secondary school students with respect to gender.

### **Hypotheses**

**Null Hypothesis:** There is no significant difference in self-efficacy of boys and girls of senior secondary school students.

### **Methodology**

The pilot study was conducted on 35 senior secondary students of Karnal district studying in Class XI and XII of a CBSE school of Karnal. Data was collected from the students, Student Self-efficacy scale, that was created by Dr S. Dhaiya and N. Kumari (2018) was used and quantitative study was done using t-test.

**Sample:** A pilot study was done and a small sample population of 35 senior secondary school students (23 girls+ 12 boys) were randomly selected for observation and analysis.

**Tools used:** Self-Efficacy Scale created by Dr. S. Dhaiya and N. Kumari (2018) was used. This scale consists 35 items divided into 5 dimensions 1) Physical, 2) Social, 3) Emotional, 4) Academic, 5) Spiritual. It is designed for secondary school students aged between 13 to 18.

This scale has range from 1 to 5, hence called five-point Likert scale having responses based on “Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree.”

**Statistical Techniques used:** The statistical techniques were applied on the responses collected and the results were obtained using various statistical tools including Mean, Standard Deviation, and 't'- test.

## Results and Discussions

With respect to the first objective of the research, which states that:

### 1. To explore the Self-efficacy of senior secondary school students with respect to gender.

The following results were obtained with respect to the self-efficacy scores obtained among females and males, Table 1.

Table-1: Statistical values of Self-efficacy students of the students of senior secondary school with respect to Gender (N= 35)

Gender	N	Mean	Standard Deviation	t-Value
Male	12	135.7	17.3	2.5707 (t stat)
Female	23	116.2	27.3	2.0369 (t crit.)

P value came out to be less than 0.05, therefore, the results were significant at 0.05. The mean scores of the male students and the female students of senior secondary school were 135.7 and 116.2, with standard deviation 17.3 and 27.3 respectively. A difference of 19.5 was detected between the mean scores of Self-efficacies of male students and female students. Since the t-statistic (2.57) was greater in magnitude than the t-critical value (2.069), this indicates that the t-statistic falls in the critical region of the distribution. This implies that null hypothesis was rejected. The null hypothesis states that there is no significant difference between the self- efficacies of males and females' students of senior secondary schools.

The null hypothesis typically assumes that there is no significant variation between the sample selected and the actual population, but in this case, the evidence suggests otherwise. It concludes that there exists a significant difference in the self-efficacies of boys and girls' students of senior secondary schools. Therefore, the null hypothesis was conditionally rejected.

This study corresponds to one of the earlier types of research done by Narasimha and Reddy (2016), who found that there is a close relationship between the gender and the corresponding self-efficacies. Moreover, it was also found that the level of self-belief among girls was comparatively less as compared to boys.

In order to find the answer to the second objective, which states that,

### 2. To evaluate the score of Self-efficacies of senior secondary school students on the basis of gender

The scale used in this study has clearly defined the categories ranging from very low self-efficacy to extremely high self-efficacy. After exploring the self-efficacy scores, the average score of girls

seems to be in the category of low self-efficacy category and the boys score are falling under the category of average self- efficacy, as shown in the Table 2.

Moreover, in our research also, girls are having Self-efficacy score of an average of 116.2 and boys are having 135.7, which falls under the category of low self-efficacy and average self-efficacy category respectively as shown in Table 2.

Table 2: Self- efficacy scores range in the scale of Dr S Dhaiya and Kumari, 2018

S. No	Range of scores	Level of Self-efficacy
1	166 and more	Extremely high self-efficacy
2	156 to 165	High self-efficacy
3	146 to 155	Above average self-efficacy
4	133 to 145	Average self-efficacy
5	122 to 132	Below average self-efficacy
6	113 to 121	Low self-efficacy
7	112 & below	Extremely low self-efficacy

**3. To find out which component of self-efficacy is low and high among the pupils of senior secondary school with respect to gender.**

The third objective aims to find out the individual scores of the males and females in different domains, physical, academic, social, Emotional and Spiritual self-efficacy respectively.

These different dimensions of self-efficacy helps in analysing the adolescent completely, because these days due to introduction of various new technological advancement and rapidly changing teaching and learning strategies, the self-efficacy patterns of students are getting impacted a lot, Table 3. Moreover, there is a need to motivate students and to stimulate critical thinking among students after assessing the students through these dimensions (Dhaiya and Kumari, 2018).

Table 3: Percentage of different self-efficacy score obtained in the population

S. No	Physical Self-Efficacy	Social Self-Efficacy	Emotional Self-Efficacy	Academic Self-Efficacy	Spiritual Self-Efficacy
Males	81.1	68.2	77.1	83.4	72.5
Females	67.1	62	63.4	69.2	70

From, the percentage of different dimensions it can be analysed that among boys, academic self-efficacy, followed by physical self-efficacy contributes more towards the self-efficacy and the social self-efficacy scores the lowest among the different dimensions.

In contrast to that the girls have highest score in the Spiritual self-efficacy, followed by academic self-efficacy and lowest score in social self- efficacy and emotional self-efficacy.

## Conclusion

The current study highlights that the self-efficacy scores of boys and girls varies significantly at senior secondary school levels of Karnal districts. The girls in this area are having low self-efficacy scores, which indicates that their belief to achieve their target and belief in themselves is very low. Moreover, when the percentage of individual dimensions also varies according to the gender. These findings highlights the importance of including such kinds of activities in our curriculum which can enhance the self-efficacy among students. Gallagher in 2012 stated that the benefits of self-efficacy have been extensively studied from the past three decades. Self-efficacy gives an individual a confidence and belief through the mantra of ‘I think, I can, I think, I can’. Self-efficacy gives an opportunity to an individual to overcome the obstacles of life and leads to a successful life. The individuals with low self-efficacy get discouraged with the hurdles and hence give up on their goals, whereas, the individuals with high self-efficacy stay motivated and ultimately achieve the desired targets of their life. It also impacts the mind psychologically and enhances motivation level through which individuals perceive challenges as opportunities, eventually developing new skills and confidence towards their life.

Therefore, it is a need of today’s era to teach the students importance of self-efficacy. In addition to that, various activities can be designed in such a way that enhances the self-efficacy among students.

## Limitations and future scope

1. The research was done on the schools of Karnal district; hence the results are restricted to that area and needs further exploration.
2. The present study is conducted on a small population only as it was a pilot study, hence for more clarity further research should be carried out.

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