

Fostering Achievement: The Role of Self-Efficacy in Cultivating Successful Intelligence Skills among Secondary School Students

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Abstract:

This study investigated the relationship between self-efficacy and Successful Intelligence (SI)—comprising analytical, creative, and practical abilities—among secondary school students. Utilizing a correlational design, data was collected from a sample of 500 students from 15 inclusive schools of Kerala state using a validated self-efficacy questionnaire and a scale of Successful Intelligence . The analysis revealed a significant positive correlation between students' overall self-efficacy and their total Successful Intelligence score. These findings suggest that a student's belief in their ability to succeed is fundamentally linked to their capacity to apply, generate, and evaluate knowledge effectively in diverse contexts. The results support the integration of meta cognitive and self-regulatory training, alongside the development of triarchic skills, to foster holistic academic and life success in secondary education.

Key terms: Self-Efficacy, Successful Intelligence, Secondary school students

Introduction:

The adolescent years are a critical period where students develop the cognitive and non-cognitive skills necessary for success in their future lives. While traditional measures of IQ focus on analytical ability, the more holistic construct of Successful Intelligence, proposed by Robert Sternberg, emphasizes the balanced use of analytical, creative, and practical abilities to achieve life goals. Central to mobilizing these diverse forms of intelligence is Self-Efficacy, the firm belief a student holds in their capacity to successfully execute the tasks required for academic and personal achievement. This article explores the powerful, reciprocal relationship between these two critical psychological factors, arguing that a student's confidence in their own abilities (self-efficacy) acts as the essential motivational force that encourages the effort, perseverance, and strategic deployment of their successful intelligence components, ultimately driving higher levels of academic mastery and real-world problem-solving among secondary school students.

1. Self-Efficacy

Self-efficacy is an individual's belief in their own capacity to organize and execute the courses of action required to manage prospective situations or successfully perform a specific task (Albert Bandura).

2. Successful Intelligence

Successful Intelligence is defined as the ability to achieve success in life, according to one's own definition of success, within one's socio-cultural context, by capitalizing on strengths and correcting or compensating for weaknesses (Robert Sternberg, 1999). It involves the balanced use of three primary abilities (or intelligences) :

- Analytical Intelligence (Academic): The ability to analyze, evaluate, judge, compare, and contrast
- Creative Intelligence: The ability to invent, discover, imagine, and deal with novel situations
- Practical Intelligence: The ability to apply knowledge, implement ideas, and adapt to or shape the environment

Review of related literature

A meta-analysis published in 2023 by Khin Nyunt Nyunt Saw and Buxin Han confirmed the broad effectiveness of SI training programs. The analysis, covering studies up to 2019, showed that SI training has a significant positive effect on overall academic achievement, triarchic thinking (analytical, creative, practical), and socio emotional outcomes, with the largest effect size seen in socio emotional skills.

In the study, "The Effectiveness of Successful Intelligence Training on Academic Engagement and Academic Resilience in High School Students" (2023), Zeinab Bazzi and Gholamhasan Panahi found that SI training have a significant positive effect on both academic engagement (agency, behavioral, emotional, cognitive) and academic resilience in high school students.

Self-Efficacy as a Mediator (Dehghani et al., 2019) Academic Self-Efficacy was found to mediate the relationship between Creativity (an SI component) and Achievement Motivation in ninth-grade students.

Predicting Teacher Self-Efficacy (Chan, 2018). Practical Intelligence was found to be the most significant predictor of teacher self-efficacy across multiple domains (e.g., classroom management, student engagement).

Significance of the study

Studies focused on adolescent learning indicate that the strategic application of different intelligence components requires high levels of self-regulation and goal commitment, both of which are direct outcomes of self-efficacy (Zimmerman, 2000). Research has shown that interventions designed to foster the balanced use

of analytical, creative, and practical skills simultaneously enhance students' sense of academic self-efficacy, leading to superior performance gains compared to conventional teaching methods. This suggests that teaching for successful intelligence not only taps into a broader range of abilities but also cultivates the essential non-cognitive belief (self-efficacy) required for long-term success. By this study, the researcher tries to identify the role of self efficacy in enhancing successful intelligence among secondary school students.

Limitations of the study

The data collected from two districts only -Calicut and Malappuram. Only Govt. and Aided inclusive schools are considered for data collection. The no. of normal children is 440 while the no. of differentially abled children is 60. In the category of Differentially abled, only the students having Orthopaedic disabilities are included.

Objectives

1. To identify the levels of self efficacy among secondary school students from inclusive schools of Kerala state
2. To identify the levels of successful intelligence among secondary school students from inclusive schools of Kerala state
3. To find out the relationship between self efficacy and successful intelligence for the total sample and subsamples based on gender and category of the student (normal/differently abled)

Hypotheses

1. There exists significant difference in self efficacy for the total sample and subsamples based on gender and category of the student (normal/differently abled)
2. There exists significant difference in the dimensions of successful intelligence (Analytic, Creative and Practical) for the total sample and subsamples based on gender and category of the student (normal/differently abled)
3. There exists significant difference in successful intelligence for the total sample and subsamples based on gender and category of the student (normal/differently abled)
4. There exists significant relationship between self efficacy and successful intelligence among secondary school students from inclusive schools of Kerala state.

Methodology

Method; Descriptive survey method is used for the study.

Sample: The sampling frame of the study is the 8th and 9th standard students of secondary schools from Calicut and Malappuram districts of Kerala state. The complete sample comprised of 500 students (boys & girls) taken from urban and rural, government and Aided schools affiliated to General Education department of Kerala. All these schools

are inclusive and the sample includes 440 normal children and 60 differentially abled. Stratified Random Sampling technique was adopted.

Tools : Self efficacy scale and Successful intelligence scale prepared and validated by the investigator and Research supervisor.

Techniques: The collected data were analysed by percentage analysis based on difference in gender (boy/girl) and category of the student (normal/differently abled). To analyse the relationship between Self efficacy and Successful intelligence, Karl Pearson's coefficient of correlation was used.

Results and Discussion:

The levels of Self efficacy among secondary school students for the total sample and subsample based on gender and category of the child(normal/differentially abled)

For finding The levels of **Self efficacy** among secondary school students, the students were classified into three groups such as High, Average and Low levels of self efficacy. Those who have scored above Mean+SD falls under **High group**, those who scored below Mean-SD falls under **Low group** and those who scored in between High and Low falls in **Average group**. The details of analysis are given below:(Table 1,2&3)

Table-1 **Percentage of students in different levels of self efficacy for the total sample**

GROUP	N-500	Self Efficacy(%)
High	135	27
Average	265	53
Low	100	20

Table 1 shows the different levels of Self efficacy among the total sample as High, Average and Low. 27% students of the total sample belongs to High level, 53% of students belongs to average level and 20% of students belongs to Lower group. It means there exists significant difference in the level of Self efficacy between higher, average and low groups for the total sample.

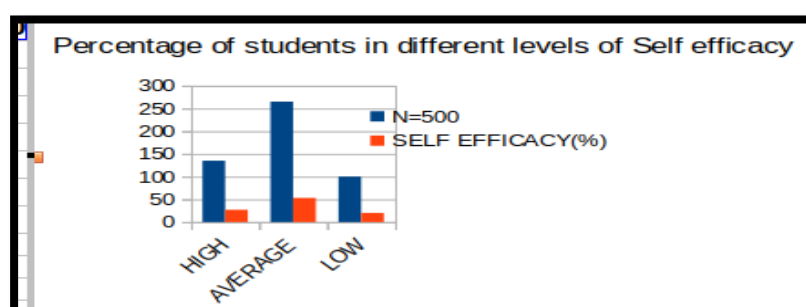


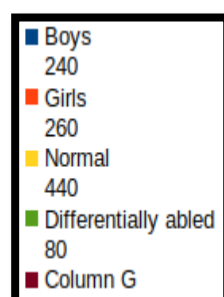
Table- 2

Percentage of students in different levels of self efficacy for the subsample based on gender and status of special need(Normal/ Differentially abled)

GROUP	N-500	Self Efficacy(%)			
		Boys 240	Girls 260	Normal 440	Differentially abled 80
		Percentage(%)		Percentage(%)	
High		21%	33%	32	12
Average		47%	42%	43	52
Low		32%	25%	25	36

The table indicates that boys and girls show higher percentage of Self efficacy in the average group for the subsample based on gender. The normal students are more in the average group for both normal and differentially abled sample.. Among the differentially abled students, average performers are more in number.12% belongs to higher group and 36%are belongs to lower group

levels of self efficacy for the subsample based on gender and status of special need(Normal/Differentially abled)

**Table- 3** *Percentage of students in different levels of Successful intelligence for the total sample*

GROUP	N-500	Successful intelligence(%)
High	100	20
Average	310	62
Low	90	18

Table 3 shows the different levels of Successful intelligence among the total sample as High, Average and Low.20% students of the total sample belongs to High level, 62%of students belongs to average level and 18%of students belongs

to Lower level. It means there exists significant difference in the levels of Self efficacy between higher, average and low groups for the total sample.

Percentage of students in different levels of Successful intelligence for the total sample

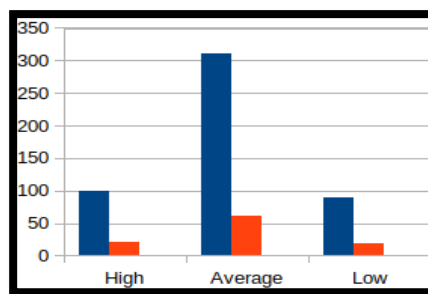


Table- 4 Percentage of students in different levels of Successful intelligence for the subsample based on gender & Category of the student(Normal/ Differentially abled)

GROUP	N-500	Successful Intelligence(%)							
		Boys (240)	%	Girls (260)	%	Normal 440	%	Differentially abled 80	%
High		74	31	62	24	180	41	16	20
Average		100	42	114	44	132	30	36	45
Low		66	27	84	32	128	29	28	35

The table indicates that 31% of boys shows higher Successful intelligence while 24% girls belongs to higher level.42% and 44% of boys and girls respectively shows average level and 27% of boys and 32% of girls are belongs to the lower group for the subsample based on gender.

The normal students are more in the higher group and approximately equal performance in average and low groups. Among the differentially abled students, average performers are more in number.20% belongs to higher group and 35%are belongs to lower group for the subsample based on category of the student.

Percentage of students in different levels of Successful intelligence for the subsample based on gender & Category of the student(Normal/Differentially abled)

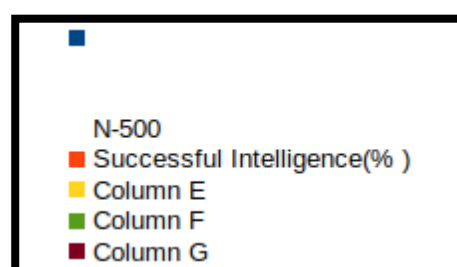
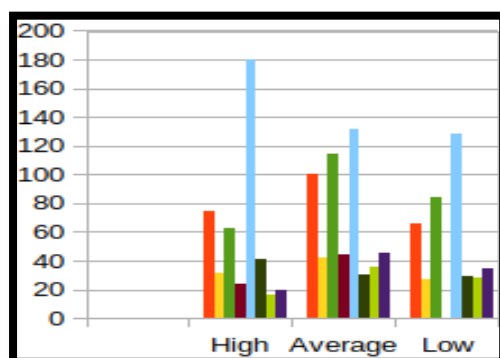


Table- 5 *Correlation Coefficient between Self efficacy and Dimensions of Successful Intelligence (analytical, practical and creative intelligence). (N=500)*

Variables	Dimensions of Successful Intelligence		
	Analytical intelligence	Creative intelligence	Practical intelligence
Self efficacy	r=0.31	r=0.39	r=0.438

The level of significance, or p-value, for a Pearson correlation coefficient (r) indicates the probability of observing a correlation as strong as (or stronger than) the one calculated, assuming that the true correlation in the population is zero. For the sample size of N=500, all three correlation values (r=0.31, r=0.39, r=0.439) are highly statistically significant.

Table- 6 *Correlation Coefficient between Self efficacy and Successful Intelligence (N=500)*

	Correlation Coefficientr	Significance level
Self Efficacy	0.49	p < 0.01
Successful intelligence		

The correlation of $r \approx 0.4947$ is **statistically significant** at the $\alpha = 0.05$ level. That means there exists a positive significant correlation between self efficacy and Successful intelligence among secondary school students.

Conclusion:

The relationship between self-efficacy and Successful Intelligence among secondary school students is a mutually reinforcing one, with self-efficacy acting as a critical motivational engine for all the abilities that constitute successful intelligence. Self-efficacy profoundly influences all three components of successful intelligence, particularly for adolescents facing the challenges and pressure of secondary school.

Educational Implications of the study

Teaching for successful intelligence would act as a catalyst for enhancing holistic learner development and Self efficacy is one of the most influencing factor.

High Self-Efficacy → Greater Motivation and Effort: Secondary students who believe they are capable are more likely to set higher goals, work harder, and persevere when they encounter academic obstacles. This sustained effort is necessary to develop all three facets of successful intelligence.

Stress Management: High self-efficacy is also associated with lower academic stress and anxiety. Students with strong self-belief are better able to regulate their emotions

and view challenges as mastery opportunities, which keeps their cognitive resources free to engage their successful intelligence abilities.

Belief leads to action, and successful action strengthens belief : When a student uses their analytical, creative, and practical skills to successfully solve a problem or achieve a goal (a demonstration of successful intelligence), this success acts as the most powerful source for increasing their self-efficacy.

21st century skills: To succeed in the 21st century, a person doesn't just need to *have* the 4 Cs; they need the confidence (Self-Efficacy) to *use* them and the flexibility (Successful Intelligence) to balance them strategically to adapt to complex, novel, and constantly changing environments. Educational models that foster both self-belief and a balanced application of Analytical, Creative, and Practical skills are therefore the most effective to prepare learners for modern challenging life..

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