



SELF-EFFICACY OF ADOLESCENCE IN RELATION TO ACADEMIC ACHIEVEMENT

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Abstract:

This study investigates the relationship between self-efficacy and academic achievement in adolescents. The sample consisted of 1000, 9th grade students in Guntur District, Andhra Pradesh, India. Data was collected through self-reported questionnaires on self-efficacy and academic performance. The findings reveal that adolescents in the study generally have an above-average level of self-efficacy. There is a significant difference in self-efficacy between genders, with females scoring higher than males. However, there is no significant difference in self-efficacy based on locality (rural vs urban) or type of school management (government vs private). Finally, the study finds a significant positive correlation between self-efficacy and academic achievement. This suggests that students with higher self-efficacy tend to perform better academically.

Introduction:

Self-efficacy is the belief that one is capable of performing in a certain manner, regardless of the capabilities or skills that he or she actually possesses. It is the belief that one has the potential of executing the course of action required to manage the prospective situation. Bandura (1977) first introduced the construct of self-efficacy with his publication of his seminar paper titled "Self-efficacy: Towards a Unifying Theory of Behavioural Change". The self-efficacy theory holds that people's belief about their behavioural capabilities and their likelihood of coping with environmental demands and challenges affect the initiation and persistence of a particular behaviour and course of action. Self-efficacy beliefs do not refer to someone's capabilities or skills but only to what someone believe he or she is capable of, under certain circumstances.

Self-efficacy can also play a significant role in influencing your goals, actions and achievements in life. When your self-efficacy in a certain area is much lower than your actual ability, you may refrain from

challenging yourself or seeking improvement. Conversely, if your self-efficacy in a specific area is much higher than your ability, you might set unrealistic goals, experience failure and potentially give up. The ideal level of self-efficacy is slightly above a person's ability, striking balance between challenging and yet still realistic.

Santrock (2008) defines adolescence as "the period between childhood and adulthood that involves biological, cognitive, social, and emotional changes" (p. 16). It is the process of preparing for maturity. The age range of adolescence varies depending on cultural and historical circumstances, but in most societies today, adolescence begins between the ages of 10 and 13 and finishes between the ages of 18 and 22 (Santrock, 2008). Adolescence, however, is not the end of transformation. Growth is a lifelong process, although adolescent growth is related to childhood and adulthood development and experiences (Santrock, 2008).

There are numerous paths through life, and people differ greatly in how effectively they manage their lives at any particular time. Infants' exploratory experiences allow them to comprehend the consequences of their activities. This is the starting point for building a sense of efficacy. Individuals are impacted by their family, peers, and school. Early exploratory and play activities, which take up a large portion of a child's waking hours, allow them to expand their repertoire of basic abilities and sense of efficacy.

The first efficacy experiences take place in the family. As a child's social world develops fast, peers become increasingly crucial in the child's developing self-awareness of their talents. Peers provide numerous critical efficacy functions. Those with the most experience and competence provide models of effective thought and action. School is where children learn the cognitive competences, knowledge, and problem-solving skills required for meaningful participation in broader society. Their knowledge and reasoning abilities are constantly tested, graded, and socially compared here. Children gain an increasing sense of intellectual efficacy as they learn cognitive skills.

Each stage of development introduces new difficulties to coping efficacy. As they reach maturity, teenagers must learn to take complete responsibility for themselves in practically every aspect of life. This necessitates learning numerous new talents as well as the ways of adult society. Learning how to deal with pubertal changes, emotionally committed relationships, and sexuality becomes critical. Adolescents develop and increase their sense of effectiveness through learning how to deal successfully with potentially unpleasant situations for which they are unprepared, as well as beneficial life occurrences. Isolation from problematic experiences leaves one unprepared to deal with potential problems.

Adolescence is frequently described as a time of psychosocial upheaval. While no stage of life is without issues, contrary to the stereotype of storm and stress, most teenagers navigate the critical transitions of this stage without undue disruption or dispute. Children who approach puberty with a crippling sense of inefficacy, on the other hand, transmit their vulnerability to distress and debility to the new environmental demands. The ease with which the transition from childhood to adulthood is made is also dependent on the level of personal efficacy developed via past mastery experiences.

Self-Efficacy and Academic Achievement:

It is widely accepted that students' academic success is influenced primarily by their cognitive abilities. Various studies have demonstrated that students who have high levels of academic self-efficacy beliefs have good feelings, behaviours, and positive thinking; can motivate themselves for actions and act accordingly; strive for achievement; persist longer when they encounter difficulties and until they get the solution; believe that failure is a temporal problem which they can manage; and attempt and use all possible ways to handle troubles and maintain their course of actions; are not frightened and challenged by difficult assignments and tasks rather they consider them as an opportunity for learning and mastery (Bandura, 1977, 1994; Pajares, 2002; Schunk, 1991, 1995). Series of studies e.g. (Schunk, 1982a,1982b,1983a,1983b,1984a,1984b, 1984c, Schunk et.al. 1987; Schunk and Swarts 1993) shows that students' self-efficacy beliefs can be increased by providing them with instructional strategies designed to enhance their competence strategies such as modeling, strategy training, goal setting and providing rewards, attribution feedback or progress feedback. The increase in self-efficacy also resulted to improve performance. Collins (1982) findings show that efficacy belief influence academic achievement and militate the effect of possessed skills on subsequent achievement by influencing effort, persistence and perseverance. High academic self-efficacy is shown to be a very strong predictor of academic achievement. Increased self-efficacy is accompanied by enhanced intrinsic motivation, the ability to sustain levels of motivation achievement-oriented behaviors, persistence in the face of difficulties and better problem solving.

On the contrary, those students who have low self-efficacy beliefs may not be interested to perform a task, they feel threatened when they face complex situations and attempt to avoid them; they are less devoted to achieve the set goals and may try to escape from cognitively oriented goals and tasks; and they immediately attribute their failure to lack of ability to persist in the face of adversities (Bandura, 1977, 1994; Pajares, 2002; Schunk, 1991, 1995). Strelnieks (2005) found that self-efficacy could only successfully predict females' academic achievement while it failed to accurately foresee males' educational performance. Therefore, these researchers have documented that self-efficacy beliefs affect task choice, goal-orientation, effort, determination, flexibility, and achievement. Ahmed, Abdulaziz and Eldood (2015) concluded that the level of self-efficacy among special educational students is high, the influences of self-efficacy as predicting academic achievement about (21%), and there are differences' between students whom has high degree and low on self-efficacy in academic achievement for high degree of self-efficacy. Hwang, Cheol, Jennifer and Brian (2016) indicated that the academic performance of students from the first semester of the 8th grade positively predicted self-efficacy beliefs. A reciprocal relationship between self-efficacy beliefs and academic achievement was seen, such that the effect of past academic performance on self-efficacy beliefs was larger than the effect of self-efficacy beliefs on academic achievement.

Review of related Literature:

Alotaibi & Alanazi (2021) noted the relationship between Students' Conception about Mathematics and Achievement in Mathematics to be mediated by their Self-directed Learning Skills (self-rated). It was found that students with a close knit conception of the subject were likely to have high level of Self-Directed Skills which in turn improved their Academic Achievement, whereas students with a fragmented conception were more likely to have low level of Self-Directed Skills leading to lower Academic Achievement. The authors suggested an emphasis on improving the conception of students about mathematics for improving Academic Achievement in the subject.

Bertills, Granlund, and Augustine (2021) notably by students with impairments whose involvement in physical activities is limited outside school. Meaningful learning experiences seem to be generated through encouraging involvement and boosting ability beliefs (PE-specific self-efficacy). The school of resources to encourage socio cognitive abilities of children is likely to lead to overall beneficial outcomes in schools

Ramesh and Subir (2021) compared Academic Stress, Self-efficacy in mathematics and Anxiety in mathematics among higher secondary level students of Purulia District of West Bengal, India. 5 independent variables Gender (boys and girls), class (XI and XII), family type (joint and Nuclear), residence (urban and rural) and stream (science and arts) are considered for this study. The results showed that (a) Self-efficacy in mathematics for higher secondary level students was statistically indifferent for the gender (boys and girls), the class (XI and XII), the family type (joint and Nuclear), the residence (urban and rural) and the stream (science and arts), (b) Anxiety showed statistically significant difference for gender (boys and girls) and stream (science and arts) but indifferent for other cases and (c) Girls are more anxious than boys and Arts students are more anxious than science students.

Bhati and colleagues (2022) studies, academic self-efficacy significantly influences students' academic achievement. Furthermore, the results showed that science students with high levels of academic self-efficacy outperformed their counterparts in terms of academic achievement.

Tia Rahmania (2023) investigated the relationship between self-efficacy, academic achievement, perceived behavioral control (PBC), and sustainable behavior among students in an educational context. The findings highlight the significant role of self-efficacy in predicting sustainable behavior, and sustainable behavior as a mediator between self-efficacy and academic achievement. Additionally, PBC has an influence on both self-efficacy and sustainable behavior of students. These findings contribute to a better understanding of the psychological factors related to improved academic achievement. The practical implications of this study provide insights for educators and policymakers to develop strategies that enhance self-efficacy, PBC, and sustainable behavior among students, ultimately leading to enhanced academic achievement.

Objectives of the Study:

1. To find out the level of Self-Efficacy of Adolescents and to classify them.
2. To find out the influence of the following variables on Self-Efficacy of Adolescents: a) Gender b) Locality c) Type of Management
3. To find out the relationship between Self-Efficacy and Academic Achievement of Adolescents.

Hypotheses of the study:

1. There is no significant difference between male and female adolescents in their Self-Efficacy.
2. There is no significant difference between rural and urban adolescents in their Self-Efficacy.
3. There is no significant difference between Government and Private school adolescents in their Self-Efficacy.
4. There is no significant relationship between the Self-Efficacy and Academic Achievement of Adolescents.

Delimitations of the study:

1. The present study was confined to Guntur District of Andhra Pradesh.
2. The study was restricted to 9th class students only.
3. The sample was restricted to 1000 students only.
4. The study was limited to the variables of Gender, Locality, Type of Management.
5. The present study was confined to the schools that follow state syllabus only.

Method of the study:

The survey method gathers data from cases at a particular time on what is happening and what is available at present time. It is not concerned with the characteristics of individuals as individual. It is concerned with general statistic that when data are abstracted from a number of individual cases. It is essentially cross sectional. The researcher thought that normative survey method is suitable to collect data through questionnaires and tests to students on Self-Efficacy of Adolescence in relation to Stress, Mental Health and Academic achievement. The scores were compared variable wise to find out if there are any significant variations. The survey is an important type of study. It requires expert and imaginative planning, careful analysis and interpretation of data gathered and logical and skill full reporting of the findings.

Sample of the Study:

The population for the study consisted of adolescent students studying in government and private secondary schools in rural and urban areas of the Guntur district of Andhra Pradesh. As per the information received by the Andhra Pradesh government the secondary school student's population is 52436. From the total population only 1000 (1.90%) 9th class secondary school students had taken for the present study. A Stratified random sample 1000 of 9th class secondary school students in the Guntur district of Andhra Pradesh was selected for the present study.

Tools of the study:

For the successful completion of the investigation, we need specific tools for gathering sample data that depend upon the study's objectives, the availability of suitable tests, and the personal competency of the investigator to administer these tools. The following research tool was used to collect the sample data.

Self-Efficacy scale - **Dr. Arun Kumar Singh and ShrutiNarain (2009)**.

Collection of Data:

The required data were collected from 50 schools of Guntur District. The investigator personally went for data collection with prior permission from the heads of the institutions. The investigator spent a day in each school in order to conduct the 3 questionnaires of the study one by one with short intervals. The investigator to collect first year marks for their Academic performance.

The investigator also gave a detailed introduction about the need and importance of the present study and then the test was conducted. Before conducting the test, detailed instructions were giving to the students. All the requirements were provided to the students for writing the test. All the H.M's, teachers are cooperated well in the collection of data for the study.

Statistical Techniques used for the Study:

The Investigator collected raw scores after doing calculations with the help of a scoring key. Organizing and summarizing raw data to find meaningful interpretations and draw valid conclusions is necessary. The Investigator has used specific statistical techniques to translate and interpret the raw scores. Following statistical techniques were used for the analysis and interpretation of data: The following statistics were applied to analyze the collected data.

- ✓ Arithmetic Mean
- ✓ Standard Deviation
- ✓ Percentage of Mean
- ✓ t' Test and 'r-value- were calculated
- ✓ ANOVA Analysis

Objective-1: To find out the Self-Efficacy of secondary school students and to classify them.

Table-1: Self-Efficacy - Whole sample Analysis

Total Sample	Mean	SD	% of Mean
1000	72.46	7.64	72.46

From the above table (1), the following observations have been made. The total numbers of students are 1000. The mean value is 72.46, the standard deviation value is 7.64 and the percentage of mean is 72.46. The level of Self-Efficacy of the adolescent is above average level which much appreciated sign to accept is.

The result shows that the adolescent students are fall at above average level in their Self-Efficacy.

The above finding is that the adolescent students are fall at above average level in their Self-Efficacy. According to the results most of the secondary school students having good condition in their Self-Efficacy. There is need to develop more self-efficacy in a right way. Similarly Self-Efficacy is commonly defined as the belief in one's capabilities to achieve a goal or an outcome. Students with a strong sense of efficacy are more likely to challenge themselves with difficult tasks and be intrinsically motivated. These students will put forth a high degree of effort to meet their commitments and attribute failure to things in their control rather than blaming external factors. Strategies may include asking students to write their comments and feedback at the end of each learning session or keeping the last few minutes of the class to let them ask questions and discuss their opinions. Feedback must be mutual and benefit both the teacher and the students in understanding themselves. It is an excellent idea to frequently give honest feedback to students about their performance and future possibilities. Enhancing self-efficacy in teachers increases the probability of making the students more self-reliant. Teachers who are highly productive about themselves and their teaching skills have a better impact on students and can influence them easily. They can bounce back from their stress and have firm control of their teaching style, making the students highly self-liable (Hoy and Bandura, 2003).

Objective - 2: To find out the influence of the following variables on Self-Efficacy of Adolescents: a) Gender b) Locality c) Type of Management

Hypothesis-1: There is no significant difference between male and female adolescents in their Self-Efficacy.

Table-2: Self-Efficacy – Gender wise analysis

Gender	Sample size	Mean	SD	't' Value
Male	500	68.39	11.47	4.80*
Female	500	71.85	11.89	

*Significant at 0.05 level

From the above table (2), the following observations have been made. The total numbers of students are 1000, the male adolescents are 500 and the female adolescents are 500. The mean value of male adolescents is 68.39, the standard deviation is 11.47. The mean value of female adolescents is 71.85, the standard deviation is 11.89. The "t" value is 4.80 which is significant at the 0.05 level.

The result shows that the obtained "t" value is 4.80 greater than the table value of 1.96 at 0.05 level. Therefore, it is significant. Hence the null hypothesis is rejected for the variable is "gender" at the 0.05 level. The result shows that male and female adolescents are different levels in their Self-Efficacy. There is a significant difference between male and female adolescents in their Self-Efficacy.

Female adolescents are better in their Self-Efficacy when compare with the male adolescents. Teachers should be given proper guidance of Self-Efficacy among boys. Classroom training is one of the crucial and most influential media for promoting and building self-efficacy. They feel confident about their learning abilities and will do well in assessments. Be interested in taking part in classroom activities and

being proactive all the time. Be motivated to apply and adapt to new lessons. Show strong intrinsic motivation to learn from mistakes and overcome hurdles. Inspire others with their way of life and achievements.

The above finding is in agreement with Rudina Shkullaku (2013) found that there was a significant difference between males and females in self-efficacy. Ramesh and Subir (2021) found that there is a significant difference between boys and girls in their self-efficacy.

Hypothesis-2: There is no significant difference between rural and urban adolescents in their Self-Efficacy.

Table-3: Self-Efficacy – Locality wise analysis

Locality	Sample size	Mean	SD	't' Value
Rural	500	71.24	11.03	1.38@
Urban	500	70.45	11.32	

@ Not Significant at 0.05 level

The following observations have been made from the above table (3). The number of students is 1000, the rural students are 500, and the urban students are 500. The mean value from the rural adolescent students is 71.24, the standard deviation is 11.03. The mean value from the urban adolescent student is 70.45 and the standard deviation is 11.32. The "t" value is 1.38, which is not significant at the 0.05 level.

The above finding is that the obtained "t" value is 1.38 less than the table value of 1.96 at 0.05 level. Therefore it is not significant. Hence the null hypothesis is accepted for the variable is "Locality" at the 0.05 level. The result shows that Rural and urban adolescents are same levels in their Self-Efficacy. There is no significant difference between rural and urban adolescents in their Self-Efficacy. Rural and urban students are same in their Self-Efficacy.

The above finding is that students in rural and urban areas may have comparable levels of overall self-efficacy, their perceptions of the attitudes of their teachers might have a big impact on how confident they feel in certain classes. Stronger self-efficacy views within that course are fostered by a teacher's belief in their students' ability to learn and progress, according to a major topic in student feedback. By using growth mind-set messaging to set expectations, highlighting skill progress through feedback and novel learning techniques, and challenging internalized fixed mind set assumptions throughout the term, instructors can actively foster a growth mind set culture in their classrooms. They enable students to take on obstacles and realize their full potential in this way.

Hypothesis-3: There is no significant difference between Government and Private school adolescents in their Self-Efficacy.

Table-4: Self-Efficacy – Type of Management wise analysis

Type of Management	Sample size	Mean	SD	't' Value
Government	500	69.89	11.43	0.34@
Private	500	70.05	11.37	

@ Not Significant at 0.05 level

The following observations have been made from the above table (4). The number of students is 1000, the Government school adolescents are 500 and the Private school adolescents are 500. The mean value from the Government school adolescents is 69.89, the standard deviation of the Government school adolescents is 11.43. The mean value from the Private school adolescents is 70.05 and the standard deviation is 11.37. The "t" value is 0.34, which is not significant at the 0.05 level.

The above table indicates that the obtained "t" value is 0.34 less than the table value of 1.96 at 0.05 level. Therefore it is not significant. Hence the null hypothesis is accepted for the variable is "Type of Management" at the 0.05 level. The result shows that government and private school adolescents are same levels in their Self-Efficacy. Hence, There is no significant difference between government and private school adolescents in their Self-Efficacy.

Even if adolescents at government and private schools may not differ significantly in terms of their general self-efficacy, peer modeling can be quite important in fostering a sense of confidence in each individual. It may even have a greater impact than teacher modeling because some students may find it difficult to relate to teachers' alleged perfection. Selecting appropriate peer models is essential. Choose "coping models" who show early troubles, voice doubts ("I'm not sure I can do this"), and work hard and receive guidance to overcome obstacles. Picture a math student struggling with a challenging equation, expressing their difficulty, and then solving it with the help of the teacher's guidance. Compared to a "mastery model" who breezes through tasks and brags about their ability ("That was easy"), this realistic figure, who demonstrates resilience and growth, is more successful. Teachers can establish a learning environment that supports students in realizing their own potential by helping them find appropriate coping models and offering them assistance.

Hypothesis 4: There is no significant relationship between the Self-Efficacy and Academic Achievement of Adolescents.

Table – 5: Relationship between Self-Efficacy and Academic Achievement

Variable	Variable	N	'r' value
Self-Efficacy	Academic Achievement	1000	0.11*

*Significant at 0.05level

From the above table (5) the following observations have been made.

The number of students is 1000. The df value is 998, and 'r' value is 0.11 significant between variables.

The computed correlation value (r) for Self-Efficacy and Academic Achievement is 0.35, as shown in Table 4.42. At 0.05 level, the estimated 'r-value' is bigger than the table value of 'r' 0.66. There is significant correlation between Self-Efficacy and Academic Achievement of adolescent students. As a result, hypothesis is rejected. As a result, it is determined that secondary school students' Self-Efficacy and Academic Achievement have a strong association.

As seen in the table above, Self-Efficacy and Academic Achievement are positively associated. It means students have Self-Efficacy they should get good marks in Academic Achievement also.

Findings of the study:

1. The result shows that the adolescent students are fall at above average level in their Self-Efficacy.
2. There is significant difference between boys and girls of the secondary school students in their Self-Efficacy. Girls are better in their Self-Efficacy when compare with the boys.
3. There is no significant difference between rural and urban of the secondary school students in their Self-Efficacy.
4. There is no significant difference between government and private school students in their Self-Efficacy.
5. There is significant inter-correlation between Self-Efficacy and Academic Achievement of adolescent students.

Educational Implications:

The present study has direct and indirect multifaceted implications for parents, students, teachers, teacher educators, counselors, researchers, administrators, policymakers, and curriculum designers. These have been described under the various headings in the following:

Since school-going students spend most of their time at home with their parents, they are crucial in keeping their children mentally healthy and stress-free. They should try to make their children mentally and emotionally fit, balanced, strong, and stable. Parents should develop a harmonious and conducive home environment; should not compare their children with siblings, classmates, friends, or others; should not tease or taunt them; should not set goals for children beyond their capabilities; and should not exert the pressure of getting higher marks or grades on them.

The study has direct implications for students. They should learn, evolve, and imbibe stress-coping strategies so that they may live mentally fit, healthy, and strong. If they keep themselves mentally healthy, their academic achievement can be enhanced.

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