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Examining the relationship between self-concept and academic achievement among students of Odisha

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Abstract

Self-concept, or one's perspective of oneself, is a factor in how one's personality develops. Over the course of two months, the current study was done on teenagers at Ravenshaw University's psychology department in Cuttack, Odisha, India. The study was undertaken to find out whether there was any correlation between self-concept and academic achievement among the students. It was based on a sample of 40 students with a mean age of 18 years and all the students were from +3 1st year class. Data was collected using the self-concept scale of Baron. It was used to get the self-concept score and +2 final year marks were taken as the index of academic achievement. There were no significant correlations among the variables. Thus, it was concluded that high levels of self-concept did not lead to high academic achievement. However, intelligent students have a moderate self-concept. So, intelligent students might not necessarily be good in academics. Statistical analysis revealed that each of the dimensions of self-concept contributed to the total score of self-concept and proved Baron's self-concept scale as valid. In the case of girls, the correlations among the variables were lower compared to boys. Girls also had lower self-concepts than boys. Such a gender difference could be attributed to the cultural and social factors which influence the mindset of girls. Girls were perceived as inferior on social and cultural dimensions compared to boys.

Keywords: Self-concept, academic achievement, adolescence, identity, socialization

1. Introduction

The transition from infancy to adulthood occurs during adolescence. As the teenager begins to move towards adulthood, childhood experiences, and biological traits are turned into interests, abilities, and self-beliefs and take on a more significant role. Numerous opportunities and limitations in the adolescent's social environment direct its development. The teenager must decide which of these alternate routes appeals to him or her. Adolescents start to develop a sense of self and create reflections of it. Although most of them reside with their parents, they increasingly spend time with friends. As a result, advices are given, solutions are compared and outcomes are evaluated.

According to research on gender, the disparities between men and women are based on their personal experiences. For the sake of consistency and in acknowledgement that human development is a social as well as a biological phenomenon, the term "gender" refers to most of the categories that are explored. The topic of gender differences comes to light throughout adolescence as a result of the biological, cognitive, and social changes that cause boys and girls to become men and women. These changes also emphasize the significance of gender in understanding adolescent development. Over the past 20 years, several research on teenagers has been conducted. The majority have focused on examining adolescents' behavioural characteristics, parental behaviour, or some objective features of adolescence. These researches have provided important information about how adolescents behave in many environments and how this behaviour changes with age. Much less research has been carried out on how the adolescent's mind works and the consequences this adolescent psychology has on young people's development. However, topics such as self-concept, aspirations, coping, and identity have received much attention.

Our self-concept i.e., our beliefs and knowledge about ourselves plays a crucial role in shaping our personality. It refers to "the composite of ideas, feelings, and attitudes people have about themselves" (Hilgard, Atkinson & Atkinson, 1979) [6]. Self-understanding, self-control, self-regulation, and self-esteem are all parts of our self-concept.

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It operates as a basic schema. The self provides a framework that determines how we process information about ourselves, including our motives, emotional states, self-evaluations, abilities, etc. (Klein, Loftus & Burton, 1989) [8]. According to Rogers (1967) [12], one's self-concept influences how one regards both one's self and one's environment. A mentally healthy individual has a self-concept that is congruent with their ideas, experiences, and actions. To gain the acceptance of others and "fit in," whether socially or professionally, people may continue to have a self-concept that conflicts with their genuine sentiments. Repressing their genuine emotions and urges results in alienation from oneself, a distorted perception of the outside world, and a constrained ability to achieve self-actualization. This difference between a person's self-concept and his actual experiences can be a source of anxiety and psychological disorders.

Self-concept also plays a significant influence in social perception, the process through which we acquire impressions of others, according to social psychologists. Our self-concept has a major role in how we attribute, or how we explain the reasons behind our own and other people's behaviours. In the first major theory of social learning, Rotter, Chance & Phares (1972) [13] claimed that the expected outcome of an action and the value we see in that outcome determine much of our behaviour. Many of the successes and failures that people experience in many areas of life are closely related to the ways that they have learned to view themselves and their relationships with others. It is seen that adolescents have a quest for personal identity.

Frequently, the phrases "self-concept" and "self-esteem" are used interchangeably. While all teenagers have a sense of themselves as students, they differ in how they rate their academic abilities and how significant this aspect of their self-esteem is to them. According to Erickson (1968) [15], there are numerous methods to acquire identity. First, by trying out several identities, and second, by struggling with their identities, especially in late adolescence and early adulthood. They desire to "try on" various identities or take on pre-made social roles. Erickson's phrase "identity crisis" describes the stress that comes with attempting to identify or reinvent one's uniqueness or social standing. Identity crises are more common in adolescents than in other people. Self-concept is a highly effective predictor of a person's social and intellectual abilities. By contrasting one's view with that of others, one may determine their self-concept. Academic success is predicted by having a positive self-concept. Within the confines of personality, the self and societal comparison also seems to be significant.

Regarding self-concept, there are several fundamental presumptions. First, one learns how to view oneself. It progressively manifests throughout the first few months of life and is altered by numerous perceived interactions with important persons. Second, one's self-concept is structured. According to most studies, self-concept has a usually consistent characteristic that is distinguished by harmony and order. The consistency of the personality is a result of the self-concept's typically reliable, organized nature. Third, self-concept is flexible. It is a system that is always in motion and indicates the genuine value of an individual's perceived existence. This guiding system helps everyone take a consistent "stance" in life by directing activity and influencing how they see themselves, other people, and the world. Our self-concept is also impacted by cognitive growth. Higher cognitively developed individuals have more accurate and positive self-perceptions. The formation of one's self-concept is greatly influenced by culture and socialization. In addition to these, a person's individualism, locus of control, capacity for perspective-taking, personality traits, and explanatory preferences are among the numerous internal elements that greatly affect how they build their sense of self.

When knowledge contradicts their self-concept, people often resist change or rationalize it away. When a person has a separate self-affirming experience, such protective reflexes are diminished (Cohen, Aronson, & Steele, 2000) [5]. In general, increased openness to knowledge and less defensiveness arise when attention is placed on a seemingly unconnected part of one's identity. For example, Byrne and Shavelson (1996) [3] classified the social interactions of young people as those involving school, family, teachers, classmates, and siblings. Situational context is always considered when analyzing the role of interpersonal relationships in self-concept. A person's self-concept is only a functioning self-concept at any given moment and is subject to change in response to fresh experiences, fresh criticism, and pertinent knowledge (Markus & Nurius, 1986) [9].

2. Objective

The present study is an exploratory investigation to find out the relationship between self-concept and academic achievement of adolescents.

3. Hypothesis

The correlation between self-concept and academic achievement will be positive.

4. Method

Table 1: Design of the study

Total number of subjects	Number of Boys	Number of Girls	Nature of subjects	Tools used	Measurement	Response analysis
40	20	20	Adolescents in the age group of 17 to 19 years from +3 1 st year class	1. Self-concept Scale. (Baron, 1995) [1] 2.+2 Annual examination score	Self-concept of the subjects with the help of scoring keys and annual examination marks were taken as the academic achievement scores	Correlational analysis

4.1 Sample

The present study was administered to 40 adolescents (N=40) who were studying in +3 1st year class of Ravenshaw University, Cuttack, Odisha. Among these 40 students, there were 20 boys and 20 girls in the age group of

17-19 years and all of them were from +3 1st year class. The participants were from the middle socioeconomic status. They were administered the self-concept scale of Baron (1995) [1]. The annual examination score of the participants i.e., their +2 or CHSE marks was considered. Test responses

were scored with the help of respective scoring keys. Responses were statistically analyzed using the correlational technique.

4.2 Measures

The measure used in this research study was the self-concept scale by Baron (1995) [1]. The students' +2 annual CHSE marks were taken as an index of academic achievement.

4.3.1 Self-Concept Scale (Baron, 1995) [1]

The "How Accurate is Your Self-concept?" Scale (Baron, 1995) was used in this research study. This self-concept scale consists of 10 items, each of which is to be rated on a 7-point scale. For each item, the extreme ends of the scales were defined by two personality characteristics, which form a definite continuum from 1 to 7. The subject's task is to circle a number from 1 to 7 to describe his or her position on a dimension specified by the item. The items on the scale measure five important dimensions of personality, such as extraversion (items 1 and 7), agreeableness (items 4 and 8), conscientiousness (items 5 and 10), openness to experience (items 2 and 9), and anxiety proneness (item 3 and 6). Items 4, 7 and 9 are scored in a reverse direction (for these items 7 becomes 1, 6 becomes 2, and so on until 1 becomes 7).

4.3.2 Academic Achievement

Total marks of the subjects in the annual CHSE examination were verified from their annual mark sheets and recorded as an indicator of academic achievement.

5. Procedure

A letter of permission was taken from the psychology department of Ravenshaw University to conduct the study on the students of psychology. The subjects were contacted and were intimated about the purpose of the present study. Before the conduction of the test, the subjects were thoroughly instructed about the test and all queries were answered. There was no time limit for the test. The self-concept scale was administered one after another on each subject. The students were asked to fill in the self-concept questionnaire where they had to circle a number from 1 to 7 on a 7-point scale to describe the dimension that best suited them. On average, students took approximately 10 minutes to complete the scale. They were cooperative and followed the instructions properly which helped in providing accuracy to carry out the research investigation effectively. Later, they were also asked about their annual marks in the examination.

6. Results

Table 2: Demographic profile of the subjects and the scores on the five dimensions of self-concept

Gender	Number of subjects	Mean age in years	Five dimensions of the self-concept				
			Extraversion	Agreeableness	Conscientiousness	Openness to Experience	Anxiety proneness
Boys	20	18 years	159	144	163	174	140
Girls	20	17 years	177	171	169	175	174
Total	40	18 years	336	315	332	349	314

Table-2 contains data on the demographic profile of the subjects and the scores of the five dimensions of self-concept. Forty subjects were taken in total out of which 20 were boys and 20 were girls. The mean age of the subjects was 18 years. The mean age of girls was 17 years and of that of the boys was 18 years. The scores of the dimensions of self-concept were recorded in the table. The scores for boys were 159, 144, 163, 174, and 140 for extraversion, agreeableness, conscientiousness, openness to experience, and anxiety proneness respectively and for girls, it was 177, 171, 169, 175, and 174 for extraversion, agreeableness, conscientiousness, openness to experience, and anxiety proneness respectively. The total scores of the dimensions were 336, 315, 332, 349, and 314 for extraversion, agreeableness, conscientiousness, openness to experience, and anxiety proneness respectively.

Table 3: Correlation ("r" values) between self-concept and academic achievement

Variables	Self-concept and academic achievement
Boys	0.803**
Girls	1.136**
Total	0.154 NS

*=significant at 0.05 level **=significant at 0.01 level NS=not significant

Table-3 shows the correlation between self-concept and academic achievement. The "r" value of the self-concept and academic achievement was 0.154 which was not significant but the "r" value of the variable among boys and girls was found to be significant.

Table 4: Correlation ("r" values) between the dimensions of self-concept and total self-concept score

Dimensions	Extraversion and self-concept	Agreeableness and self-concept	Conscientiousness and self-concept	Openness to experience and self-concept	Anxiety proneness and self-concept
Boys	0.607**	-0.006NS	-7.212**	0.146NS	0.691**
Girls	0.640**	0.789**	0.642**	0.693*	0.307 NS
Total	0.719**	0.707**	0.290NS	0.386*	0.679**

Table-4 revealed the correlation ("r" values) between the dimensions of self-concept and total self-concept score. The "r" values for extraversion, agreeableness, conscientiousness, openness to experience, and anxiety proneness with self-concept were 0.719, 0.707, 0.290, 0.386, and 0.679 respectively. The "r" value of extraversion, agreeableness, and anxiety proneness was significant at 0.01

level. The "r" value of conscientiousness was not significant. In the case of girls, the "r" values of anxiety proneness and self-concept was 0.307 which was not significant while in the case of boys, the "r" values for agreeableness and self-concept and openness to experience and self-concept were -0.006, and 0.146 which were not significant.

Table 5: Correlation (“r” values) between the dimensions of self-concept and academic achievement

Dimensions	Extraversion and academic achievement	Agreeableness and academic achievement	Conscientiousness and academic achievement	Openness to experience and academic achievement	Anxiety proneness and academic achievement
Boys	0.300 NS	0.088NS	0.061 NS	0.008 NS	0.025 NS
Girls	0.250 NS	0.191 NS	0.087 NS	-175 NS	0.651**
Total	0.176 NS	1.240**	0.041NS	0.096NS	0.072NS

Table-5 revealed the correlation (“r” values) between the dimensions of self-concept and academic achievement. All the “r” values in the case of total scores were not significant at any level except the “r” values of agreeableness and academic achievement which is significant at 0.01 level. In the case of boys, all the “r” values were not significant whereas, for girls all the “r” values were not significant except in anxiety proneness and academic achievement.

7. Discussion and Conclusion

The present research was conducted to find out the correlation between two variables namely self-concept and academic achievement of students. The sample consisted of 40 +3 1st year students, among them 20 students were girls and 20 students were boys. The study was conducted as per the defined methods and materials. A self-concept scale was used to produce a self-concept score and final examination i.e., +2 marks were recorded. The total mean age of the students was 18. While the mean age of boys and girls was 18 and 17 respectively. It also revealed the total score of the five dimensions of self-concept. The correlation or “r” values between self-concept and academic achievement were not significant in total. For both boys and girls, it is significant at 0.01 level. The “r” value of self-concept and academic achievement was 0.154 which rejected the hypothesis while supporting the correlation between self-concept and academic achievement, though not significant. The correlation between the five dimensions of self-concept with the total self-concept was however positive. In total, the conscientiousness and self-concept dimension it was not significant. The “r” values of agreeableness and self-concept and openness to experience and self-concept in the case of boys were “not significant” and anxiety proneness and self-concept for girls were not significant although positive.

It was further found that the “r” values between the dimensions of self-concept and academic achievement were not significant except for agreeableness and academic achievement which was significant at 0.01 level. In the case of boys, the “r” values were not significant at any level, and in the case of girls, all the “r” values were not significant except anxiety proneness and academic achievement.

Therefore, based on these findings, we can conclude that a normal or moderate self-concept does not lead to higher academic achievement, and dimensions of self-concept contribute to its total score and prove that the self-concept scale is valid. Each of the dimensions significantly contributes to the total self-concept. The self-concept of girls was lower than that of boys. Girls also had more negative correlation between variables i.e., self-concept and academic achievement than boys. The cause can be attributed to the social and cultural context that influences the mindset of the girls. The study was conducted within a stipulated period. The chief constraint was the academic schedule of the students. The sample size was also small; therefore, more subjects should be used in future research studies.

Therefore, this study was an exploratory one to find out the correlation between self-concept and academic achievement among adolescents. This study is indeed a stepping stone in this direction and will pave the way for extensive research in the future. Self-concept in adolescents is essential for their social well-being. Ineffective interpersonal interactions and inferiority complexes are the results of a weak self-concept. Like this, academic success is another crucial aspect of a person that aids in not only their regular day-to-day functioning but also in achieving popularity, social position, and employment. Adolescence is a time of transition that is tumultuous and full of crises. They may settle their problems and accomplish specific goals that will lead to success and pleasure provided parents, teachers, and other major members of society provide them with timely advice and counselling. The teacher should set up the class activities such that each student has an equal chance to participate. Such methods that would improve pupils' self-concept ought to be supported. Teachers should concentrate on engaging in activities that will improve their pupils' learning. Additionally, parents should provide their children with the freedom and conducive environment necessary for the expression of their views and feelings, as this will aid in their personality development.

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9. Conflict of Interest

The researcher declared no conflict of interest.

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