

Meta-Cognition of Secondary Schools Students in Relation to their Educational Adjustment

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ABSTRACT

The main aim of the study was to examine the relationship between self - regulating learning and educational adjustment. A sample of 100 Secondary School Students was randomly selected from Panipat District. Data was collected by Meta Cognition skills scale by Gupta and Suman (2017) and Educational Adjustment Inventory (2014) by Rani & Singh. Data was analyzed by using statistical techniques like Percentage, Correlation and Mean, Standard deviation, 't'- test. The results of the study revealed that majority of secondary school students had high level of meta-cognition. More than half of the students at secondary school level are also had high level of educational adjustment. Meta-cognition and educational adjustment were positively correlated with each other. Boys were more higher than girls at secondary level w.r.t. their meta-cognition and girls had high educational adjustment than boys. This study recommended that meta- cognitive strategies can be helpful in better educational adjustment.

Keywords: *Meta-Cognition, Educational Adjustment, Secondary School Students, Strategies, Learning Environment*

Education lays the foundation for the fulfillment of a person's dreams and aspirations because it is a gateway to the opportunities. It helps a person to meet his/her career objectives and achieve an economic growth and thus builds a resourceful individual out of a raw human being. An educated human being, having experienced the positive effects of education on his/her personality is bound to encourage the idea of education and effectively educate his/her children. Education brings up questions and also devises ways to find satisfactory answers that lead us enlightenment. It is education that builds in every individual, a confidence to take decisions, to face life and to accept success and failures.

Meta-cognition

Meta-cognition is related to higher order thought process which involves control on the cognitive aspect in learning. Different activities like planning of learning, monitoring learning process, and evaluation of that learning process till completion of that task are meta- cognitive activities. Meta-cognition plays very important in successful learning. Meta-

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cognition is often simply defined as - thinking about thinking. In actuality, defining meta-cognition is not that simple. Although the term has been part of the vocabulary of educational psychologists for the last couple of decades and the concept for as long as humans have been able to reflect on their cognitive experiences, there is much debate over exactly what meta-cognition is. One reason for this confusion is the fact that there are several terms currently used to describe the same basic phenomenon like executive –control, meta- memory and self- regulation. These terms are often used interchangeably in the literature. Meta-cognitive knowledge refers to acquired knowledge about cognitive processes, knowledge that can be used to control cognitive processes.

The term ‘Meta- Cognition was coined by John Flavell in 1976 which refers to a person’s awareness and consideration of cognitive strategies and process. It is an ability to store information and retrieve when needed. It also includes self- representation, self-regulation and self- monitoring in the learning process. It includes strategies to solve the problems. Meta –cognition involves one’s own thinking process, skills of study, ability to memorize the things, monitoring of learning. It is not only important in student’s life but has importance throughout the life. Following are some meta- cognitive skills:

1. Knowledge of one’s own limits.
2. Self –monitoring like concept mapping and adaption of strategies of learning.
3. Modification of approaches for more learning.
4. Skimming
5. Self-testing for good learning.

Educational Adjustment

Adjustment is very important for a happy and successful life. It is a life- long process. It starts from birth of a person and continues till death. It is a process of achieving a balance state between the need of a person and his satisfaction. Family and school play very important role in adjustment of a person. So, adjustment means to make suitable, arrange, modify or harmonize oneself. Adolescence period of human life faces different problems related to adjustment due to various psychological, physical, cognitive and behavioural changes.

Education is related to the process of acquiring skills, beliefs, values and knowledge. Educational adjustment is related performing the duties related to the study of a person. It is regarding the duty of to achieve his goal. If a person is not able to achieve good scores, he can face the problems to adjust himself in educational environment. Educational adjustment is a process in which a student establishes harmonious relationship between his school environment and himself. Creating interest in learning and following the rules of school are some examples of educational adjustment. Following are some characteristics of well – adjustment in schools:

1. Emotional stability
2. Mature Thinking
3. Good decision maker
4. Feeling of understanding towards others
5. Continuous hard working.

Yemliha (2018) conducted a study of meta-cognition on university students. The findings of the study revealed that those students who have high Meta- cognition thinking, they have also high thinking ability and reflective thinking for problem –solving ability and decision-making skills. This study also resulted that increase in meta-cognition increases academic

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level. Abri and Tyovenda (2021) conducted a study on effect of meta –cognition on secondary school students' performance in mathematical performance. This study revealed that metacognitive approach helped in better performance of the students in mathematical performance. Acharya (2021) revealed in her study that meta- cognitive skills are helpful in better learning outcomes and adjustment among adolescence.

Rationale of the Study

The quantity and quality of cognitive behavior is associated with the activities of thinking, learning, problem solving and decision making. It produces a dramatic impact on productivity, performance and potential for growth. The meta-cognition provides a basis for identifying the patterns of behavior. It demonstrates people's approaches to these critical activities. Education should be developed so as to increase production, social and national integration, accelerate the process of modernization and cultivate social, moral and spiritual values. Thus, education must come up to the exception of the society in bringing about the necessary revolutions. Meta-cognition helps the students in changing their behavior. There is a need to understand, recognize and develop each area of meta-cognition. In addition, most of the recent studies regarding brain functioning and meta-cognition assert the need to use each of the bipolar elements of the systematic and intuitive styles in order to generate greater performance, productivity and creativity. A high level of academic achievement requires high level of thinking order. Meta -cognition helps in better adjustment in academic area as it helps in getting proper guidance and facilitating learning. After reviewing the related literature, it was found that there is a scarcity of research in this area as the researchers could not find much studies that focused on the relationship of meta-cognition and educational adjustment of students.

Statement of the Problem

“Meta-cognition of Secondary School Students in Relation to their Educational Adjustment”

Objectives

1. To study meta-cognition of secondary school students.
2. To study educational adjustment of secondary school students.
3. To find out relationship between meta- cognition and educational adjustment of secondary school students.
4. 4To compare meta -cognition of secondary school students based on their gender.
5. To compare educational adjustment of secondary school students based on their gender.

Hypotheses

1. There is no significant relationship between meta -cognition and educational adjustment of secondary school students.
2. There will be no significant difference of meta cognition of secondary school students based on their gender.
3. There will be no significant difference of educational adjustment of secondary school students based on their gender.

METHODOLOGY

Keeping in the view about the nature of the study, descriptive survey method was used for the present study. 100 secondary school students from various schools of Ponipat were selected as sample for the present study. Meta Cognition skills scale by Gupta and Suman

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(2017) and Educational Adjustment Inventory (2014) by Rani & Singh were used for data collection. Data was analyzed by using statistical techniques like Percentage, Correlation and Mean, Standard deviation, 't'- test.

Data Analysis

1. Levels of Meta- Cognition of secondary school students.

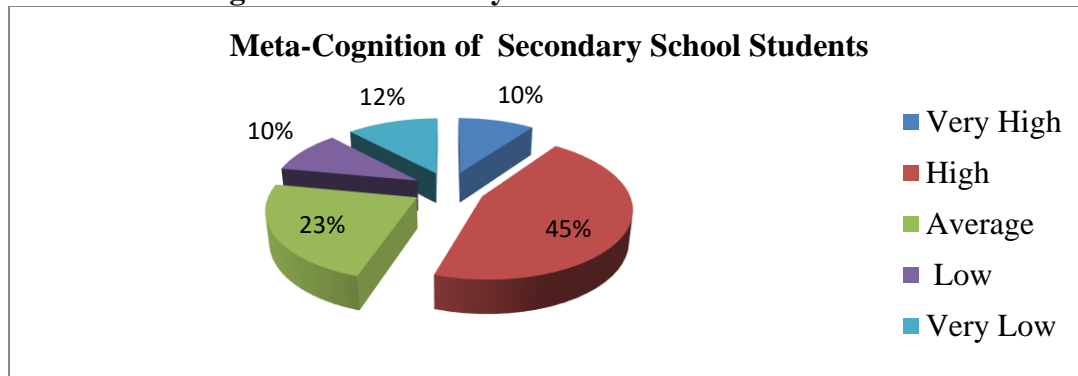


Figure-1

Interpretation

It is clear from the above figure that 10% of students have very high level of Meta-cognition. 45% of the students have high level of Meta-cognition. 23% of the students have average level of Meta-cognition. 10% of students have low level of Meta-cognition. 12% of students have very low level of Meta-cognition. This showed that majority of secondary school students have high level of Meta-cognition. So, it can be concluded that those students who have very high and high level of meta-cognition, have high level of knowledge and cognition.

2. Levels of educational adjustment of Secondary School students

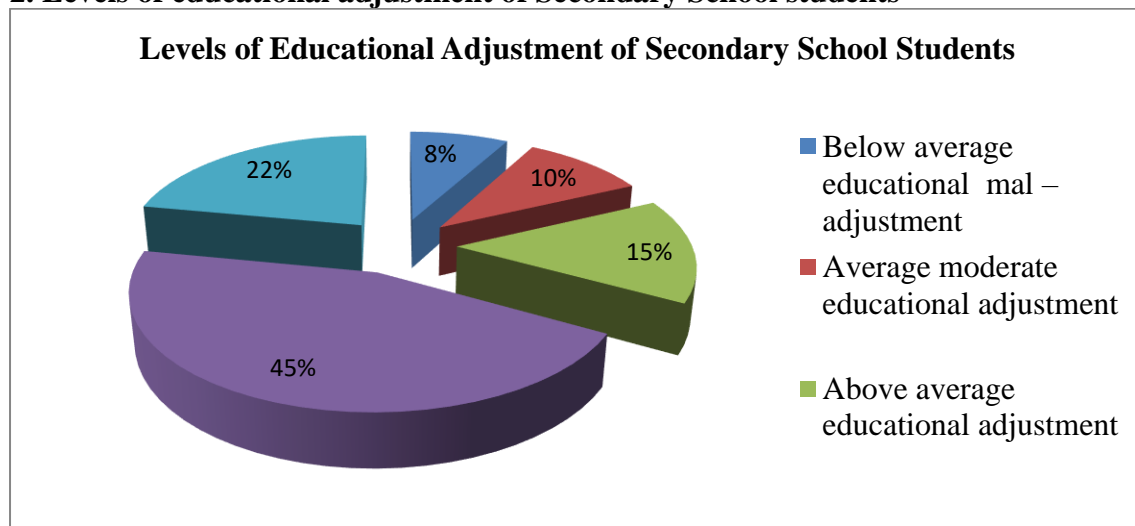


Figure-2

Interpretation:

It is revealed from the figure-2 that 8% Secondary students are below average at mal-adjustment in education. It means that there are few students who are not well adjusted in educational area. 10% secondary students have average moderate educational adjustment. 15% secondary students are above average educational adjustment. 45% secondary students

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are high educational adjustment. 22% secondary students are extremely high educational adjustment. It is concluded that more than half of the students at secondary school level are having high level of educational adjustment. It is found that they are well adjusted in school environment and educational aspect.

3. Relationship between Meta- Cognition and Educational Adjustment of secondary school students.

Table -1 Relationship between Meta-Cognition and Educational Adjustment of Secondary School Students

Variables	No of students	Person correlation	Remarks
Meta- Cognition	100	0.68	Positive High Correlation
Educational Adjustment	100		

Interpretation

It is clear from the above table that coefficient of correlation (r) between meta-cognition and educational adjustment is 0.68. It shows that there is a significant positive relationship between meta-cognition and educational adjustment. Therefore, the null hypothesis, “There is no significant relationship between meta-cognition and educational adjustment of secondary school students” is rejected. It indicates that meta-cognition and educational adjustment are positively correlated with each other. So, it can be interpreted that higher the meta-cognition of secondary students higher the educational adjustment and vice-versa.

4. Comparison of Meta - Cognition of Secondary School students based on gender.

Table- 2 Difference between Boys and Girls of Secondary School w.r.t. Meta-Cognition

Groups	No. of Students	Mean	SD	t-value	Level of Significance
Boys	50	97.48	12.83	3.22	Significant at 0.01
Girls	50	88.28	15.54		

Interpretation

The table-2 shows that the mean of boys and girls is 97.48 and 88.28 where S.D. is 12.83 and 15.54 respectively. It can be observed that the calculated t-value is 3.22. It is found that it is significant at 0.01 level of significant. So, there exists significant difference in meta-cognition of secondary school students on the basis of gender. Hence, hypothesis, “There will be no significant difference of meta- cognition of secondary school students based on their gender” is rejected. It is found that boys are higher than girls at secondary level w.r.t. their meta-cognition.

5. Comparison of educational adjustment of Secondary School students based on gender.

Table- 3 Comparison of Boys and Girls of Secondary Schools w.r.t. Educational Adjustment

Groups	No. of Students	Mean	SD	t-value	Level of Significance
Boys	50	21.70	11.47	4.63	Significant
Girls	50	32.76	12.40		

Interpretation

The table- 3 shows that the mean of boys and girls is 21.70 and 32.76 whereas S.D. is 11.47 and 12.40 respectively. It can be observed that the calculated t-value is 4.63. It is found that

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it is significant at 0.01 level of significant. So, there exists significant difference in educational adjustment of secondary school students on the basis of gender. Hence, hypothesis, “There will be no significant difference of educational adjustment of secondary school students based on their gender” is rejected. It reveals that girls have high educational adjustment than boys.

DISCUSSION

The results of the study revealed that majority of secondary school students have high level of Meta-cognition. So, it can be concluded that those students who have very high and high level of meta-cognition have high level of knowledge and cognition. More than half of the students at secondary school level are having high level of educational adjustment. It is found that they are well adjusted in school environment and educational aspect. Meta-cognition and educational adjustment are positively correlated with each other. So, it can be interpreted that higher the meta-cognition of secondary students higher the educational adjustment and vice-versa. Boys were more higher than girls at secondary level w.r.t. their meta-cognition. It reveals that girls have high educational adjustment than boys. Achrya (2021) also revealed that girls are higher in their educational adjustment and achievement than boys.

CONCLUSION

In modern society, there is demand of high academic achievement at all levels of learning. It needs high order of problem –solving and meta-cognitive skills. Different researchers revealed that meta-cognitive skills can improve the level of educational adjustment. The results of this study also indicate that meta- cognitive skills are required to enhance the learning process and adjustment in educational setup. Meta –Cognition can help in a better way to develop a growth mindset for reflective thinking.

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Conflict of Interest

The author(s) declared no conflict of interest.

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