



Metacognitive Skills and Academic Achievement of Secondary Level Students of District Baramulla

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Abstract

Metacognitive skills are acquired during childhood and prepare students for lifelong learning. Students will need metacognitive skills to monitor and track their mastery of scientific process skills such as fact-finding and concept-building. Academic achievement relies heavily on metacognitive skills. Metacognitive awareness is a crucial component in assisting learners in becoming more productive and, more significantly, autonomous. The aims of the present study is to determine the relationship between metacognitive skills and academic achievement of higher secondary school students. A sample of 200 higher secondary students (100 boys and 100 girls) were selected for the study by using convenience sampling technique. In the present study the researcher uses descriptive survey method. Data was collected with the help of Metacognitive Skills Scale developed by Madhu Gupta and Sumari (2020). For analyzing the data, mean, percentage and correlation were employed. The findings of the study revealed that there is a significant relationship between metacognitive skills and academic achievement among higher secondary school students of district Baramulla. The findings of the study also inferred that majority of the students have above average level of metacognitive skills (28%) and only few students fall in the range of below average level of metacognitive skills (8%), hence, it reveals that majority of higher secondary school students are possessing above average level of metacognitive skills.

Keywords: *Metacognitive Skills, Academic Achievement and Higher Secondary School Students.*



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1. INTRODUCTION

Man's most significant invention is education. Education transforms a person into a rational, capable, and responsible individual. People become more aware about the world as a result of education, as well as more sensitive to and understanding of their relationship with it, and more motivated to contribute to the civilization process. Educational aspiration is an important component of education because it

allows students to better understand themselves and how they may operate effectively for their own well-being and the development of society (Kozol, 1984). Education is critical for an individual's and society's advancement. Man's thinking, reasoning, problem-solving skills, intelligence and aptitude, positive statements, excellent values, and attitudes are all developed through education. It's a process that lasts a lifetime.

Indian education has established itself in the eyes of the globe today. One of the current educational concerns is that of student underachievement in the scholastic field, as a result of which they are unable to cope with the challenges they face. Students' awareness and understanding of their learning skills, performance, preferences, impediments, and goals are all part of meta-cognition. Taking conscious control of learning and selecting tactics, monitoring learning progress, correcting errors, analyzing the effectiveness of learning strategies, and altering learning behaviors and strategies as needed are all examples of meta-cognitive skills. Metacognition including awareness of ourselves as learners, has become a prominent subject of research due to a growing acknowledgment of the notion that it helps us to learn better.

In the realm of cognitive psychology, metacognition has been one of the most widely studied ideas. John Flavell, known as the Father of Metacognition, initially presented the notion of metacognition in 1976. Metacognition is derived from the Greek term "meta," which means "beyond," and is used to describe a concept that is an abstraction of another concept. Metacognition is often referred to as "thinking about thinking" or "cognition about cognition. Meta-memory, Meta-perception, and Meta-comprehension are some of the epistemic processes for which it is a synonym. (Papaleontiou-Louca, 2008). According to Winne and Hadwin (1998) Meta-cognition is defined as the knowledge of one's own cognitive and affective processes, as well as the ability to monitor and govern these processes in a conscious and purposeful manner. Meta-cognition consists of two main elements: a) cognition knowledge and b) cognition regulation. (Flavell, 1979).

Cognition Knowledge encompasses all notions relating to human thinking processes, such as self-concept of knowledge, self-intelligence, self-memory, attention, study habits, and so on. Furthermore, metacognitive knowledge is concerned with our own cognitive processes and our understanding of how to control them in order to enhance learning.

Cognitive process regulation refers to all of the strategies that help us to control our thinking, such as direction, planning, monitoring, testing, repairing, evaluating, and reflecting. The creation and refining of metacognitive knowledge are aided by insights gained while monitoring and managing

cognition. Cognitive Knowledge, in turn, appears to aid the ability to regulate cognition.

Meta-cognitive skills are the abilities to comprehend and analyze one's own learning, which is influenced by one's educational background and prior experience. Meta-cognitive abilities enable one to be aware of one's own knowledge, as well as the ability to comprehend, control, and modify one's own cognitive processes. In other words, persons with good metacognitive skills can regulate and manage their own thoughts, and the results of their thinking processes will assist them in effectively solving difficulties. Individuals' awareness, evaluation, and regulation of their own thinking activity are referred to as meta-cognitive skills. **Brown, Bransford, Ferrara, and Campione (1983)** demonstrated that highly developed meta-cognitive skills are one of the essential qualities of good problem-solvers. They understand how to spot errors or holes in their own thinking, describe their thought processes, and revise their efforts. There are three meta cognitive abilities that can aid learning.

1. Planning Skills,
2. Monitoring skills
3. Evaluation skills.

1) Planning: The selection of appropriate strategies and the allocation of resources that affect performance are referred to as planning. It includes things like formulating predictions before reading, strategy sequencing, and deliberately devoting time or attention before starting a task. (Miller, 1985).

2) Monitoring: Monitoring is the process of keeping track on one's comprehension and work performance. A good example is the ability to engage in periodic self-testing during learning. Monitoring capacity appears to develop slowly in children and even adults, according to research. Several recent research studies have discovered a connection between metacognitive knowledge and monitoring accuracy

3) Evaluating: Evaluation refers to appraising the products and regulatory processes of one are learning. It includes re-evaluating one's goals and conclusions. Metacognitive knowledge and regulatory skills such as planning are related to evaluation. Thus, individuals who display a wide range of metacognitive skills do better on exams and complete tasks more quickly. They use the best tool for the task and adapt their learning

strategies as needed, detecting learning barriers and changing tools or strategies as necessary to achieve their objectives. [Jacobs & Paris \(1987\)](#) claim that using metacognition improves students' academic performance and learning outcomes.

Academic achievement refers to a student's ability to do well in a variety of subjects across the curriculum. It is the action that is carried out, with a focus on superiors' abilities, efforts, and importance. Academic achievement, in its most basic meaning, refers to a student's performance in various disciplines of the curriculum during their education. The individual's academic standing is taken into account as a whole. It is one of the most essential educational goals in today's fast changing world, and as science and technology improve, people have grown more educationally minded, and every parent has high expectations for their children. A child's academic record forecasts his or her future. Because we live in a competitive world, academic records are important at every stage of life. In other terms, it refers to the information and abilities acquired by students in school subjects that are judged by authorities via achievement assessments in the form of examinations. As [Good \(1973\)](#) pointed that "The development of the learners is possible only if proper individual attention is given to them for enhancing the knowledge attained or skills developed in school subjects usually reflected by test scores or marks assigned by the teachers or by both." Academic achievement is a psychological trait that includes behavioral, attitude, and cognitive characteristics that influence student learning results ([Reynolds, & Walberg, 1992](#)).

Academic achievement at all levels of education is a source of great worry for educators and others alike. In reality, the entire educational program is aimed at achieving excellent academic standards, and the educational system's structure is meticulously built with this goal in mind. Achievement tests are commonly used to assess a student's mastery of a subject, substance, or ability. The primary goal of education in the modern day is to promote the harmonious development of individuals and to prepare them for life. Human beings are empowered by education to make better decisions. Individuals who are educated make a positive contribution to society and provide a superior human resource. As a result, education assists students in becoming self-sufficient in their decision-making, increasing

their self-efficacy and internal locus of control so that they may plan, achieve, and manage their life goals. To put it another way, education is responsible for instilling metacognitive skills through successful learning, allowing people to plan, monitor, and govern their cognitive performance or academic achievements.

2. RELATIONSHIP BETWEEN METACOGNITIVE SKILLS AND ACADEMIC ACHIEVEMENT

Metacognition's importance in academic success cannot be overstated. Learners and educators are both influenced by their understanding of curriculum objectives, which means that metacognition can assist learners become more involved in the learning process. It is a powerful predictor of academic achievement. In today's academic and social worlds, understanding metacognition is crucial. Several studies have looked into the relationship between metacognition and academic achievement. They reveal that students who excel in school have a high level of metacognitive awareness ([Shraw, 1997](#); [Taebee et.al, 1998](#); [Martini and Shore, 2007](#); [Coutinho, 2007](#); [Turan and Demirel , 2010](#)). Metacognition is one of the most researched issues in education and psychology, as we all know. According to Achufusi et al. students who were taught with the Metacognitive Learning Model (MLM) considerably increased their performance. Schmidt and Ford discovered that engaging in metacognitive tasks always results in the successful acquisition of new information. Developing students' metacognitive knowledge of how they learn—their understanding of themselves as learners, techniques, and tasks—can help them achieve better academic results. Students are better able to control their studying when they learn to comprehend their own cognitive processes ([Babbs and Moe](#)).

3. REVIEW OF RELATED LITERATURE

According to the review of research studies it is indicated that the idea of meta-cognition is still developing, a great number of studies in this field have piqued academic interest. The application of Meta cognitive abilities has been linked to improved learning outcomes and academic achievement ([Wittrock, M, 1983](#)). [Garcia, T. \(1994\)](#) and [Pintrich, Peklaj and Pecjak, 2002](#), [Sperling, et al. \(2002\)](#), and [Zimmerman \(2004\)](#) discovered that

metacognition is a set of skills that are highly connected with academic performance. **Ramdevi and Kumar (2010)** discovered a strong positive association between metacognitive awareness and achievement. Students' performance can be improved by teaching through metacognitive learning (**Dijonckheere et.al, 2012**). **Eluemuno and Azuka-Obieke (2013)** Investigated the association among metacognitive skills and academic performance in senior secondary school students. The study used a sample of 144 participants who were chosen at random from three senior secondary schools. Two intervention conditions (metacognitive training methodologies) and a control group were assigned to the schools randomly. The study's data was gathered using a questionnaire and an achievement test. Two research hypotheses were developed to guide the investigation. The findings inferred that there is a "positive link between metacognitive skills and academic performance, meaning that improving a student's metacognitive skills will increase their academic success in English Language.

Abdullah (2015) studied the association between metacognitive awareness and academic achievement, as well as its significance to pre-service female teachers' teaching performance, at Ajman University, in United Arab of Emirates. A sample of 75 pre-service Professional Diploma Female Students were participated in the study. The metacognitive Awareness Inventory (MAI) and Teaching Performance Checklist were two surveys employed in this study. The findings demonstrate the role of metacognition in the learning process. It is suggested that college professors employ teaching techniques and strategies to provide material to students in a way that encourages the application of metacognitive skills, which has a positive impact on academic achievement and teaching performance. **Das (2015)** investigated the relationship between metacognitive ability and academic achievement of B. Ed. Students. This study comprises of sample of 300 students B. ED Students. In order to assess the metacognitive awareness, the researcher used Metacognitive Inventory scale developed by **Govil (2003)**. The study's findings demonstrated that metacognitive ability and academic achievement of B. Ed. students have a substantial significant relationship. **Kristiania, Susilo, Rohman, and Aloysius (2015)** investigated the relationship between meta-cognitive skills and

academic achievement in Malang, Indonesian high school students. In this correlational investigation, twenty-three students took part. In order to examine the collected data for the study the researcher uses multiple regression analysis. An essay test combined with academic success evaluation was used to assess students' meta-cognitive abilities. According to the findings of the study, meta-cognitive skills contributed 71.42 percent to students' academic success. **İsa Yücel İşgör (2016)** used a sample of 251 high school students to investigate the relationship between meta-cognitive skills and academic success. Percentage, frequency, correlation, and stepwise linear regression analysis were employed to compute the data. According to the findings, there was a favourable and substantial association between meta-cognitive skills and average academic success.

Jain, Tiwari and Awasthi (2017) Determined the impact of metacognitive awareness on students' academic adjustment and academic outcomes. A sample of 522 students were selected for the study. Results of the study showed that metacognitive awareness has positive associations with academic adjustment and academic accomplishment. The findings of the study also revealed that Gender has no effect on students' metacognitive awareness. **Gupta (2017)** Investigated the association between meta-cognitive skills, learning & thinking style, and academic accomplishment among school children, as well as the ability to predict academic achievement based on meta-cognitive abilities and learning & thinking style. The study consists of sample of 500 students selected by using random sampling technique. The data was collected by using the Meta Cognitive Skills Scale (MCSS) created by **Gupta and Suman (2017)** and the **Venkataraman (2011)** Style of Learning and Thinking (SOLAT) tool. The statistical tools used in this investigation were Pearson's coefficients of correlation and stepwise multiple regression. It was concluded from the findings that both factors, metacognitive skills and learning and thinking style, were important predictors of secondary school students' academic progress. **Surinder and Rajbir (2017)** The study looked at secondary school students' academic achievement in connection to metacognition and problem-solving skills. The sample consisted of 200 students in XI grade, both boys and girls, from the CBSE and

PSEB of Amritsar District, who were chosen randomly. The data was collected by using Metacognition inventory developed by Govil (2011) and problem-solving ability test developed by Dubey (2011). The study's findings revealed that there is no significant difference in metacognition and problem-solving abilities between girls and boys in CBSE and PSEB medical school students. However, there is a considerable disparity in problem-solving abilities between students in CBSE and PSEB medical schools. Metacognition, problem-solving ability, and achievement of secondary school students in the medical stream have no correlation. Moreover, there was no significant interaction effect of metacognition and problem-solving ability on achievement of medical students at the secondary level.

4. JUSTIFICATION OF THE STUDY

The structure and pattern of education are rapidly changing as a result of globalization ideology. It is necessary for students to develop metacognitive skills in order to grasp how ideas change. Metacognition has long been emphasized by educational psychologists as an important tool for controlling and supporting student learning. However, educators, particularly those working with secondary school students, may be unfamiliar with approaches for teaching and measuring metacognition. Students that have Metacognitive awareness will be aware of how they think and will be able to manage their learning. A learner must be able to plan, monitor, and evaluate their learning in order to have control over it. Metacognition also helps students in comprehending how they might improve their learning of various skills both in and out of the classroom. It aids the pupil in determining how to carry out the thought process (Oxford, 2013). Metacognition allows students to become aware of their own learning process.

Several studies have found that metacognitive skills play a crucial role in academic achievement. Maqsood (1997) found that metacognitive capacity is positively associated with academic achievement in high school students. According to Ibe (2009) Meta-cognitive methods were the most successful in improving academic achievement. Sharei, Kazemi, and Jafari (2012) discovered a substantial relationship between the general scores of meta-cognitive abilities and emotional intelligence skills, as well as certain of

its constituents' mathematical problem-solving ability. Eluemun and Azuka-Obieke (2013) discovered a link between metacognitive skills and academic achievement Mizakhani, Bagheri, Sadeghi, Mizakhani, and Mdanl (2014) investigated if metacognitive skills were more effective in female students' academic progress. The only predictor that could predict pupils' academic progress was their control capability. Isa Yücel Işgör (2016) looked at whether there was a positive significant relationship between metacognitive skills and average academic accomplishment.

On the basis of review of related literature, it is revealed that most of the studies has been conducted on metacognitive skills in relation to academic achievement in abroad, but a very little research has been carried out in Indian context related to meta-cognitive skills in relation to academic achievement at higher secondary level. Thus, in Indian context, the lack of researches in the present area motivated the researcher to take up the present topic and to study the metacognitive skills and its relationship with academic achievement Among Secondary level students of district Baramulla. For both students and teachers, the current study is extremely important, relevant, and useful. This will motivate people to come forward and learn about metacognitive abilities. Metacognition has also been related to a number of favorable academic outcomes for pupils, including improved grades and success on IQ tests. As a result, the researcher believed that the current study was urgently needed, and she picked it specifically for higher secondary students since metacognitive awareness would enable them to thrive academically, choose their career paths, and achieve their long-term objectives. Furthermore, the findings of this study will aid in the development of appropriate tactics, educational programs, and interventions for improving students' and teachers' strength, abilities, skills, and competencies.

5. STATEMENT OF THE PROBLEM

The present study is entitled as: "Metacognitive Skills in Relation to Academic Achievement of Secondary Level Students of District Baramulla"

6. OPERATIONAL DEFINITIONS OF THE TERMS

6.1. Metacognitive Skills: Meta-cognitive skills are the abilities to comprehend and analyze one's own learning, which is influenced by one's educational background and prior experience. Meta-cognitive abilities enable one to be aware of one's own knowledge, as well as the ability to comprehend, control, and modify one's own cognitive processes

6.2. Academic Achievement: Academic achievement refers to a student's ability to do well in a variety of subjects across the curriculum. It is the action that is carried out, with a focus on superiors' abilities, efforts, and importance.

6.3. Secondary Level Students: According to the National Education Policy 2020, the secondary level in Kashmir Province includes students in 9th, 10th, 11th, and 12th grades.

7. OBJECTIVES OF THE STUDY

- To study the level of metacognitive skills of secondary level students of District Baramulla.
- To study the level of academic achievement of secondary level students of District Baramulla
- To study the relationship between metacognitive skills and academic achievement of secondary level students of District Baramulla.

8. HYPOTHESIS OF THE STUDY

H₀: There is no significant relationship between metacognitive skills and academic achievement of secondary level students of District Baramulla.

9. METHODS OF THE STUDY

The present study employed a descriptive survey method to collect and analyze data from participants. This approach enabled a comprehensive examination of current conditions, behaviors, and opinions within the target population. Through surveys, data were gathered on specific variables relevant to the research objectives, allowing for systematic analysis of trends, patterns, and relationships among different factors.

The descriptive survey method is particularly useful for studies aiming to provide a detailed account of a subject, as it allows researchers to draw meaningful conclusions from

large amounts of data while minimizing bias. This method thus supports accurate, objective insights into the research questions.

9.1. Population of the study

The population of the present study includes secondary-level students of District Baramulla in the Kashmir division. To analyze the Metacognitive Skills in Relation to Academic Achievement of Secondary level students of District Baramulla the researcher selected secondary level students of Kashmir division. This demographic provides insights essential to understanding the broader educational landscape in the region.

9.2. Sampling of the study:

For the collection of data, the researcher selected convenience sampling technique under non probability sampling. 200 secondary-level students (100 Boys and 100 Girls) of District Baramulla in Kashmir division selected as a sampling of the study. These students were chosen from seven higher secondary schools within the district to represent the population under study. Convenience sampling was employed due to its efficiency in accessing participants who were readily available and willing to participate. This approach enabled the researcher to gather data quickly while still obtaining insights relevant to the research objectives. By focusing on secondary-level students from multiple schools, the study aimed to capture a range of perspectives and experiences within the educational context of Baramulla.

9.3. Tools Used

For this study, the Metacognitive Skills Scale developed and standardized by Madhu Gupta and Sumari in 2020 was utilized, comprising 42 items. Academic achievement was assessed based on students' scores from the previous year's exams, providing a measure of their academic performance.

9.4. Statistical Techniques Used

For analyzing the data, the researcher used Average mean frequency, percentage and correlation for the study.

10. RESULTS AND DISCUSSION

Objective 1: To study the level of metacognitive skills of Secondary level students of District Baramulla.

The scores on the metacognitive skills scale were sorted into five groups using the norms from the scale manual to determine the levels of metacognitive skills of Secondary level students in the district of Baramulla.

Table-1: Description of levels of metacognitive skills among Secondary level students of District Baramulla.

Levels of Metacognitive Skills	Frequency	Percentage
Below Average	8	8%
Average	22	22%
Above Average	28	28%
High	25	25%
Very High	17	17%
Total	100	100%

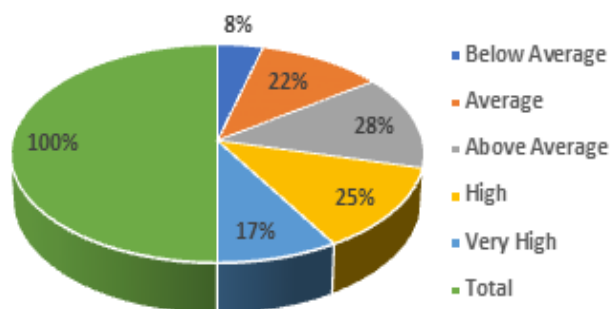


Fig-1: Graphical representation of levels of metacognitive skills among higher secondary students of District Baramulla

From the above table and fig inferred that majority of the students have above average level of metacognitive skills (28%) and only few students fall in the range of below average level of metacognitive skills (8%), hence, it reveals that majority of Secondary level students are possessing above average level of metacognitive skills.

Objective 2: To study level of academic achievement of Secondary level students of District Baramulla.

In order to check the level of academic achievement of Secondary level students of district Baramulla, they were divided in to different grades.

Table-2: Description of grades of academic achievement among Secondary level students of District Baramulla.

Grades	Frequency	Percentage
Grade A	10	10%
Grade B	35	35%
Grade C	30	30%
Grade D	25	25%
Total	100	100%

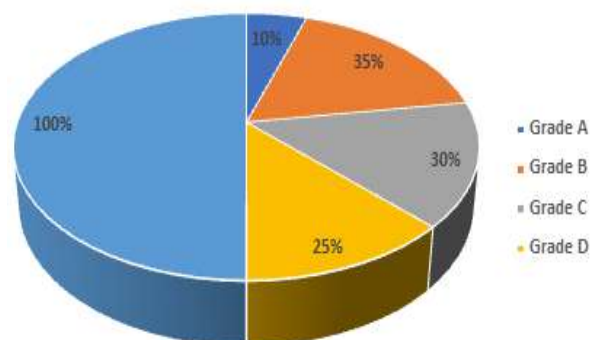


Fig-2: Graphical representation of grades of academic achievement among Secondary level students of District Baramulla.

The above table and fig, reflects that students show different performance in academic achievement and earn different grades. However, most of the students fall in grade B and only few students fall in grade A.

Objective 3: To study the relationship between Metacognitive skills and academic achievement of Secondary level students of District Baramulla.

Hypothesis 1: There is no significant relationship between metacognitive skills and academic achievement of Secondary level students of District Baramulla.

The relationship between metacognitive skills and academic achievement among Secondary level students in the district of Baramulla was studied by using Pearson's coefficient of correlation (r), yielding the results indicated in table (3).

Table-3: Correlation between metacognitive skills and academic achievement of Secondary level students of District Baramulla.

	Academic Achievement
Metacognitive Skills	.548

. Correlation is significant at the 0.01 level; $p < 0.01$

The table (3) reflects that there is a significant correlation between 'Metacognitive skills' and 'Academic Achievement' among Secondary level students of District Baramulla with $r=0.548$, $p < 0.01$, indicating that better metacognitive skills lead to higher academic achievement and vice versa.

The findings of the present study indicated that there is a significant relationship between 'Metacognitive skills' and 'Academic Achievement' among Secondary level students of district Baramulla with $r=0.548$, $p < 0.01$, shows that better the metacognitive skills higher the academic achievement and vice versa. The findings of the study draw support from the study conducted by Das (2015) who explored the relationship between metacognitive ability and academic achievement of B. Ed. Students with a sample of 300 students B. ED Students. Results of the study indicated that there is significant positive relationship between metacognitive ability and academic achievement of B. Ed. students. The findings of the present study are also consistent by the observation made by Ramdev and Kumar (2010), and found High positive and significant correlation between metacognitive awareness and achievement. The findings of the study are also in consonance with the findings of study administered by Yucellsgor (2016) on metacognitive skills, academic achievement and exam anxiety as predictors of psychological wellbeing. A total of 251 high school students, 149 females and 102 males between the ages of 14 and

19, participated in this study. The findings of the study concluded that there is significant positive relationship between psychological wellbeing, metacognitive skills and academic success.

11. OBJECTIVE WISE DISCUSSION

- The findings highlight a positive trend in metacognitive development among these students, which could be beneficial for their overall educational success.
- Finding reveals that majority of the students demonstrate satisfactory academic capabilities, there is room for improvement in helping more students achieve higher grades. The distribution highlights varied academic outcomes, emphasizing the need to support students across all performance levels for enhanced academic success.
- Finding of the study also shows that there is a significant relationship between 'Metacognitive skills' and 'Academic Achievement' among Secondary level students of district Baramulla of Kashmir Division. The significant correlation highlights the importance of fostering metacognitive skills to enhance student's learning outcomes in this population.

12. EDUCATIONAL IMPLICATIONS

- The study provides insights useful to policymakers, administrators, teachers, parents, students, and educational professionals, enhancing their approaches to supporting student achievement.
- Efforts should be made to integrate activities that build metacognitive skills within the curriculum, as these skills significantly impact academic performance.
- Encouraging constructivist learning approaches can strengthen students' metacognitive abilities, fostering deeper engagement with content.
- Emphasizing 'how to learn' over memorization encourages students to develop critical thinking, planning, and self-monitoring skills.
- Education policies should consider including metacognitive skill development as part of the curriculum for secondary-level students to enhance academic outcomes.

- Teachers should be trained to implement strategies that develop students' metacognitive abilities, helping them monitor and control their own learning.
- Parents can be informed of ways to encourage metacognitive skill development at home, such as goal-setting and progress tracking.
- Enhancing metacognitive skills prepares students not only for academic success but also for improved career performance by fostering lifelong learning skills.

13. CONCLUSION

The present study highlights a significant correlation between metacognitive skills and academic achievement among secondary level students in District Baramulla, with an observed correlation coefficient of $r=0.548$, $p<0.01$. This finding indicates that students with better metacognitive skills tend to achieve higher academically, and vice versa. The results are consistent with previous research, such as studies by Das (2015), Ramdev and Kumar (2010), and YucelIsgor (2016), all of which established a positive relationship between metacognitive awareness and academic success. Metacognitive skills, which are developed during childhood, are critical for lifelong learning, enabling students to monitor and evaluate their learning processes effectively. These skills are particularly important for mastering scientific process skills such as fact-finding and concept-building. Moreover, students with higher levels of metacognitive awareness are more likely to become autonomous learners, improving their productivity and academic outcomes. The study, which utilized a sample of 100 higher secondary students, found that most students possess above-average metacognitive skills, with only a small percentage falling below average. This emphasizes the importance of fostering metacognitive skills in educational settings to enhance academic performance. Overall, the findings underscore the crucial role of metacognitive skills in achieving academic success and promoting independent learning among students.

REFERENCES

Abdellah, R. (2015). *Metacognitive Awareness and its Relation to Academic Achievement and Teaching Performance of Pre-service Female*

Teachers in Ajman University in UAE. Procedia – Social and Behavioural Sciences, DOI:10.1016/j.sbspro.2015.01.707.

- A. Schmidt and J. Ford, "Learning within a learner control training environment: the interactive effects of goal orientation and metacognition instruction on learning outcomes," *Personnel Psychology*, vol. 56, pp. 405–419, 2003.
- Brown, A.L., Bransford, J.D., Ferrara, R.A., and Campione, J.C. (1983). *Learning, remembering, and understanding*. In J. H. Flavell & E. M. Markman (Eds.), *Handbook of child psychology*, Vol. 3 Cognitive development (4th Ed.) (pp. 78- 166). New York: Wiley.
- Das, A. (2015). Relationship between metacognitive ability and academic achievement of B. Ed. students - A study. *International Journal of Science and Research*, 6(5), 1639-1642.
- Eluemuno, A. and Azuka-Obieke, U. (2013). The Effect of Metacognitive Skills on Performance in English Language among Senior Secondary School Students in Anambra State, Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 4(4), 678-685.
- Flavell, J.H. 1979). *Metacognition and Cognitive Monitoring: A New Area of Cognitive Developmental Inquiry" American Psychologist*, 34(10),906-911 Journal Style.
- Garcia T, Pintrich, P. R. 1994, "The Effects of Autonomy on Motivation, Use of Learning Strategies, and Performance in the college classroom" paper presented at the Annual Convention of the American Psychological Association, Sanfransisco and CA.(Conference).
- Good, C.V. (1973). *Dictionary of Education*, New York, McGraw-Hill Book Company, p.7.
- Gupta, M., & Suman (2017). Meta-cognitive Skills and Learning & Thinking Style: Predicting Academic Achievement Among School Students. *International Journal of Advanced Research in Management and Social Sciences*, 6(11), 46-59.
- Ibe, H.N. (2009). *Metacognitive Strategies on Classroom Participation and Student Achievement in Senior Secondary School Science Classrooms*. *Science Education International*, 20(1/2), 25-31.
- Isa Yucel Isgor (2016). *Metacognitive skills, academic success and exam anxiety as the predictor of psychological well-being*. *Journal of Education and training studies*. 4(9), 35-42.
- Jain, D., Tiwari, G.K., & Awasthi, I. (2017). *Impact of Metacognitive Awareness on Academic Adjustment and Academic Outcome of the Students*. *The International Journal of Indian Psychology*, 5(1), 123-138,

- DIP:18.01.034/20170501, DOI: 10.25215/0501.034.
- Jacobs, J.E. Paris, S.G. (1987). Children's metacognition about reading: issues its definition, measurement and instructions. *Educational psychologist*, 22(3), 255-278
- K. Achufusi, A. Nwankwo, and M. Samuel, "Malcom X Quotes (n.d.). BrainyQuote.com," 2021, https://www.brainyquote.com/quotes/malcolm_x_386475.
- Kozol, J. (1984). *The night is dark and I am far from home: a political indictment of the U.S. Public schools*. New York: Continuum Publishing Company.
- Kristiani, N., Susilo, H., Rohman, F. and Aloysius, D.C. (2015). The contribution of students' meta-cognitive skills and scientific attitude towards their academic achievements in biology learning implementing Thinking Empowerment by Questioning (TEQ) learning integrated with inquiry learning (TEQI). *International Journal of Educational Policy Research and Review*, 2(9), 113- 120.
- Maqsud, M. (1997). Effects of Metacognitive Skills and Nonverbal Ability on Academic Achievement of High School Pupils. *Educational Psychology: An International Journal of Experimental Educational Psychology*, 17(4), 387-397.
- Mizakhani, M., Bagheri, M., Sadeghi, M., Mizakhani, F. and Modanloo, Y. (2014). Impact of meta-cognitive skills on academic achievement of students in Mazandaran University of Medical Sciences. *Journal of Mazandaran Univ Med Sci*, 24(115), 167-173.
- Papaleontiou-Louca, E. (2008). *Metacognition and theory of mind*. Cambridge: Cambridge Scholars Publishing.
- P. Babbs and A. M Isa Yucel Isgor (2016). Metacognitive skills, academic success and exam anxiety as the predictor of psychological well-being. *Journal of Education and training studies*. 4(9), 35-42.
- Reynolds, A. R., & Walberg, H. J. (1992). A process model of mathematics achievement and attitude. *Journal of Research in Mathematics*, 23, 306-328.
- Sharei, M., Kazemi, F. and Jafari, M. (2012). Investigation the effect of emotional intelligence skills and meta-cognitive capabilities on students' mathematical problem solving. *Educational Research*, 3(11), 844-850.
- Sperling, R. A., Howard, B.C, Millar, L.A. & Marphy, C (2002). Measures of children's knowledge and regulation of cognition, *Contemporary Educational Psychology*, 27, 51-79.
- Surinder, K., & Rajbir, K. (2017) Academic Achievement in Relation to Metacognition and Problem Solving Ability Among Secondary School Students. *Scholarly Research Journal for Humanity Science & English Language*, 4(24), 6551-6564. <https://doi.org/10.21922/srjhsel,v4i24.10346>.
- Winne and Hadwin (1998). Studying as self-regulated learning. In Hacker, D. J., Dunlosky, J. & Graesser, A. C. (Eds.) *Meta-cognition in educational theory and practice* (pp. 277-304). NJ: LEA.
- Zimmerman, (2004,) "Student Differences in Self-regulated Learning: Relating Grade, Gender and Giftedness to self-efficacy and Strategy Use, *Journal of Educational Psychology* 82, 51-59.

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