EFFECT OF PLANNING AND MONITORING METACOGNITIVE ABILITY ON ACADEMIC ACHIEVEMENT OF SENIOR SECONDARY SCHOOL STUDENTS

Dr. Anuradha Sindhwani
Associate Professor, K.M.College of Education, Bhiwani, India
&
Dr. Rakhi Narula
Lecturer, Vaish College of Education, Rohtak, India

ABSTRACT

The present study is an attempt to find the effect of planning and monitoring metacognitive ability on academic achievement in English of senior secondary school students. A descriptive survey was used. In the present study, 600 senior secondary school students in five districts of Haryana state constituted the sample. Cluster Random sampling technique was used to select these subjects from the population. Academic achievement scores were taken from Achievement Test in English which was prepared and standardized by investigator herself. Descriptive statistics like Mean, Standard Deviation and 't' test was used to compare the groups. The findings of the study revealed that(i) students having high ability in planning and monitoring their learning had better academic achievement in English than the students having average ability in planning and monitoring their learning; (ii) students having average ability in planning and monitoring their learning had better academic achievement in English than the students having low ability in planning and monitoring their learning; and (iii) students having high ability in planning and monitoring their learning had better academic achievement in English than the students having low ability in planning and monitoring their learning.

Keywords: Academic achievement, planning and monitoring metacognitive ability, senior secondary school students.

INTRODUCTION

It is the time when we also need to redefine teaching and learning. Learning should no more be considered as simple acquisition of facts, knowledge or skill but it should be reoriented as acquisition of facts, knowledge and skill and ability to apply it in real life. Achievement is the accomplishment or acquired proficiency in the performance of an individual with respect to a given knowledge or skill. Thus, achievement is the glittering crown which reflects a sense of sincerity, candidness and perseverance on the part of the achievers. The term has been defined by different persons in various ways.

Stagner (1962) defined achievement "as a degree of proficiency or progress made by pupils in the mastery of school subjects". According to Crow and Crow (1969) "achievement refers to the extent to which a learner gets profit from instructions in a given area of learning i.e. achievement is reflected by the extent to which knowledge or skill has been acquired by a person from the training imparted to him". Saxena and Dwivedi (1979) define the term scholastic achievement as the attainment or accomplishment in the field where a subject receives some instruction or training.

Analyzing the definitions mentioned above, we can conclude that academic achievement refers to the level of proficiency attained in academic work or as formally acquired knowledge in school subjects which is determined by the grades, or marks secured by the students in the examination. It reveals the level of educational accomplishment in various subjects taught in educational institution. It also reveals the quantity and quality of learning attained in a subject of study after a period of instruction. Besides being the criterion of promotion to the next class, academic achievement is also an index of future success and determines the pattern of one's living. In view of this, the factors which play an important role in determining an individual's academic achievement need to be studied.

METACOGNITIVE SKILLS

Controlling your thinking processes and becoming more aware of your learning is called metacognition. Metacognition refers to learners' automatic awareness of their own knowledge

and their ability to understand, control, and manipulate their own cognitive processes. It is "knowledge of one's knowledge, processes, and cognitive and affective states; and the ability to consciously and deliberately monitor and regulate one's knowledge, processes, and cognitive and affective states." In more general terms, metacognition is the awareness of the acquisition of mental organization skills, and the ability to apply these organization and recognition skills.

Learners with good metacognitive skills are able to monitor and direct their own learning processes. When learning a metacognitive skills, learners typically go through the following steps (Pressley, Borkowski, & Schneider [20], 1987):

1. They establish a motivation to learn a metacognitive process. This occurs when either they themselves or someone else points gives them reason to believe that there would be some benefit to knowing how to apply the process.

2. They focus their attention on what it is that they or someone else does that is metacognitively useful. This proper focusing of attention puts the necessary information into working memory. Sometimes this focusing of attention can occur through modeling, and sometimes it occurs during personal experience.

3. They talk to themselves about the metacognitive process. This talk can arise during their interactions with others, but it is their talk to themselves that is essential. This self talk serves several purposes:

   o It enables them to understand and encode the process.

   o It enables them to practice the process.

   o It enables them to obtain feedback and to make adjustments regarding their effective use of the process.

   o It enables them to transfer the process to new situations beyond those in which it has already been used.

4. Eventually, they begin to use the process without even being aware that they are doing so.

It is interesting to note an important relationship between the higher order skills of metacognition and the basic or factual skills that may be a part of a specific unit of instruction. Students typically learn metacognitive skills while they are involved in learning something else. If they

are to do this successfully, it is extremely important that the learners have over-learned the prerequisite content knowledge for the subject matter topic being studied. If that prerequisite knowledge has not been mastered to a sufficient level of automaticity, then the working memory of the learner will be overwhelmed by the subject matter; and the result will be no time for metacognitive reflection.

When teachers and parents try to help students, it is important not to do too much thinking for them. By doing their thinking for the children they wish to help, adults or knowledgeable peers may make them experts at seeking help, rather than expert thinkers. On the other hand, by setting tasks at an appropriate level and prompting children to think about what they are doing as they successfully complete these tasks, adults can help children become independent and successful thinkers (Biemiller & Meichenbaum [2], 1992). In other words, it is often better to say, what should you do next?" and then to prompt the children as necessary, instead of simply telling them what to do.

Metacognitive skills have mainly three levels:

1. **Metacognitive knowledge and learning strategies** - The learner who gets high grade from these items; can overview and rearrange their learning strategies during metacognitive experience.

2. **Knowledge about learner's own learning and learning unit** - The learner who gets high grade from these items; knows which strategy they should choose for learning any subject matter and how to use it.

3. **Ability in planning and monitoring learner's learning -**While monitoring, ability to decide whether they learned and take measures for effective learning during metacognitive experience. The learner who gets high grade from these items; monitors whether they can use the time affective, whether he/she understand the subject deeply and judge the amount of knowledge they learned during learning period; can understand reasons of the failure while learning a subject.

In this research article, we only discuss effect of planning and monitoring metacognitive ability on academic achievement in English of senior secondary school students.

NEED OF THE STUDY

To become self-directed learners, students must learn to assess the demands of the task, evaluate their own knowledge and skills, plan their approach, monitor their progress, and adjust their strategies as needed. Students must be able to accurately reflect on what they do and don't know, and how they would approach solving new organisation problems. Studies have shown that once a child is able to come up with his own way of organising items for study, he will achieve far greater results on tests (in reading, writing, math, science, bilingual education, test prediction, etc.). It is therefore imperative that effective study skills, with metacognition as the goal, be taught and monitored to children so that they may become more facile with finding unique problem-solving strategies in future. Unfortunately, these metacognitive skills tend to fall outside the content area of most courses, and consequently they are often neglected in instruction. However, without proper research in this area, it is difficult to illustrate the contribution and positive intervention of metacognitive skills with students' overall academic achievements. The present study was conducted to know the impact of metacognitive skills on academic achievement of senior secondary school students.

STATEMENT OF THE PROBLEM

Effect of Planning and Monotoring Metacognitive Ability on Academic Achievement in English of Senior Secondary School Students.

OBJECTIVES

1. To study and compare academic achievement in English of senior secondary school students having high ability in planning and monitoring their learning and average ability in planning and monitoring their learning.

2. To study and compare academic achievement in English of senior secondary school students having average ability in planning and monitoring their learning and low ability in planning and monitoring their learning.

3. To study and compare academic achievement in English of senior secondary school students having high ability in planning and monitoring their learning and low ability in planning and monitoring their learning.

HYPOTHESES

1. There is no significant difference in academic achievement in English of senior secondary school students having high ability in planning and monitoring their learning and average ability in planning and monitoring their learning.

2. There is no significant difference in academic achievement in English of senior secondary school students having average ability in planning and monitoring their learning and low ability in planning and monitoring their learning.

3. There is no significant difference in academic achievement in English of senior secondary school students having high ability in planning and monitoring their learning and low ability in planning and monitoring their learning.

METHOD OF RESEARCH

The present study was an attempt to explore academic achievement in English in comparison to their planning and monitoring metacognitive ability of senior secondary school students. So Descriptive Survey Method of research was employed as this method is concerned with surveying, describing and investigating the existing phenomena or issues, conditions that exist.

POPULATION AND SAMPLE

The population of this study comprised of senior secondary school students in five districts of Haryana state. 600 students of senior secondary standard are taken as sample of the study. Cluster random sampling technique was used to select the subjects from the population.

TOOLS USED

*   Metacognitive Skills Scale by Alindag and Senemoglu (2013)
*   Academic achievement scores were taken from the Achievement test in English which was made by investigator herself.

STATISTICAL TECHNIQUES USED

Descriptive statistics like Mean, Standard Deviation and 't' test were used to compare the groups.

RESULTS

<p align="center">Table 1</p>

<p align="center">Means, S.D.s and 't' ratio of academic achievement in English of high and average ability in planning and monitoring their learning of senior secondary school students</p>

Variable	Group	Number	Mean	S.D.	't' ratios	Level of Significance
Academic Achievement in English	High ability in planning and monitoring their learning	413	65.32	13.34	7.212	Significant at 0.01 level
	Average ability in planning and monitoring their learning	153	56.32	12.80		
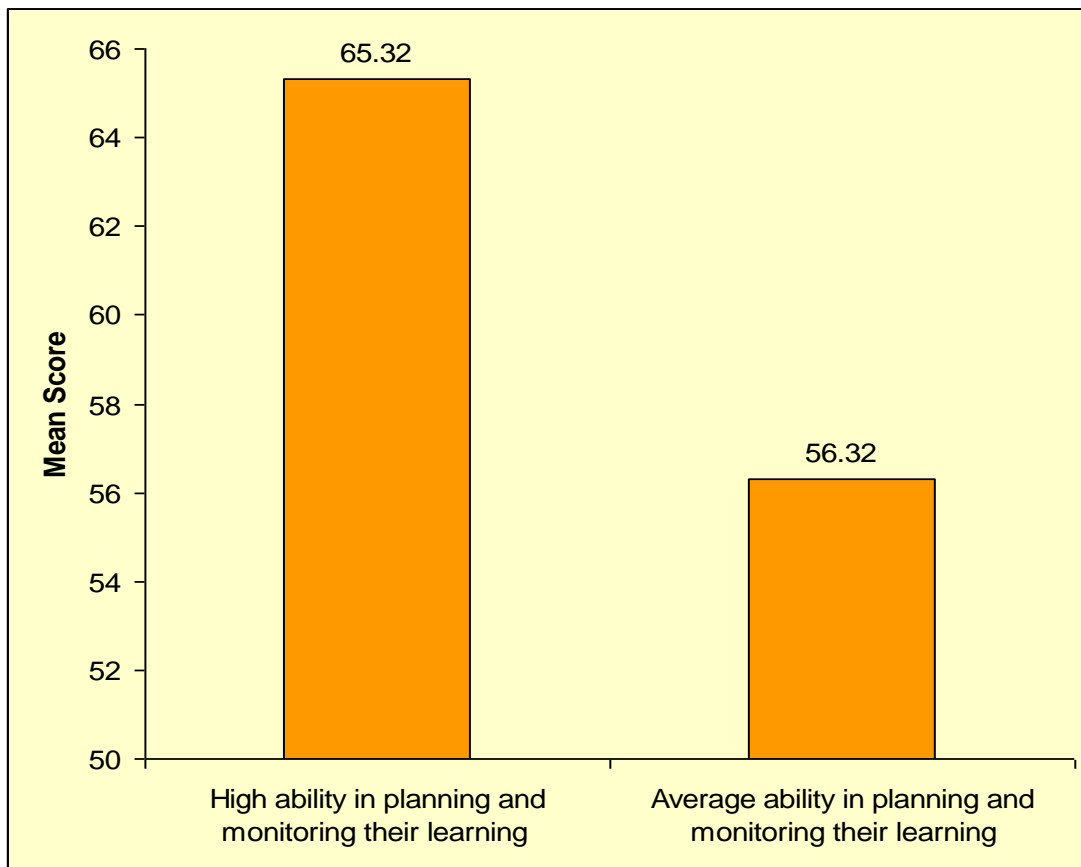
A scrutiny of Table 1 indicates that the mean and SD scores of academic achievement in English of students having high ability in planning and monitoring their learning and average ability in planning and monitoring their learning are (65.32±12.80) and (56.32±12.80) respectively. The 't' value is 7.212 which is significant at 0.01 level. It depicts that students having high and average ability in planning and monitoring their learning differ significantly on academic achievement in English. Further mean score of students having high ability in planning and monitoring their learning is higher than the students having average ability in planning and monitoring their learning. It indicates that students having high ability in planning and monitoring their learning had better academic achievement in English than the students having average ability in planning and monitoring their learning. Thus the hypothesis framed earlier, "There is no significant difference in academic achievement in English of senior secondary school students having high ability in planning and monitoring their learning and average ability in planning and monitoring their learning" is not retained.

Table 2

Means, S.D.s and 't' ratio of academic achievement in English of average and low ability in planning and monitoring their learning of senior secondary school students

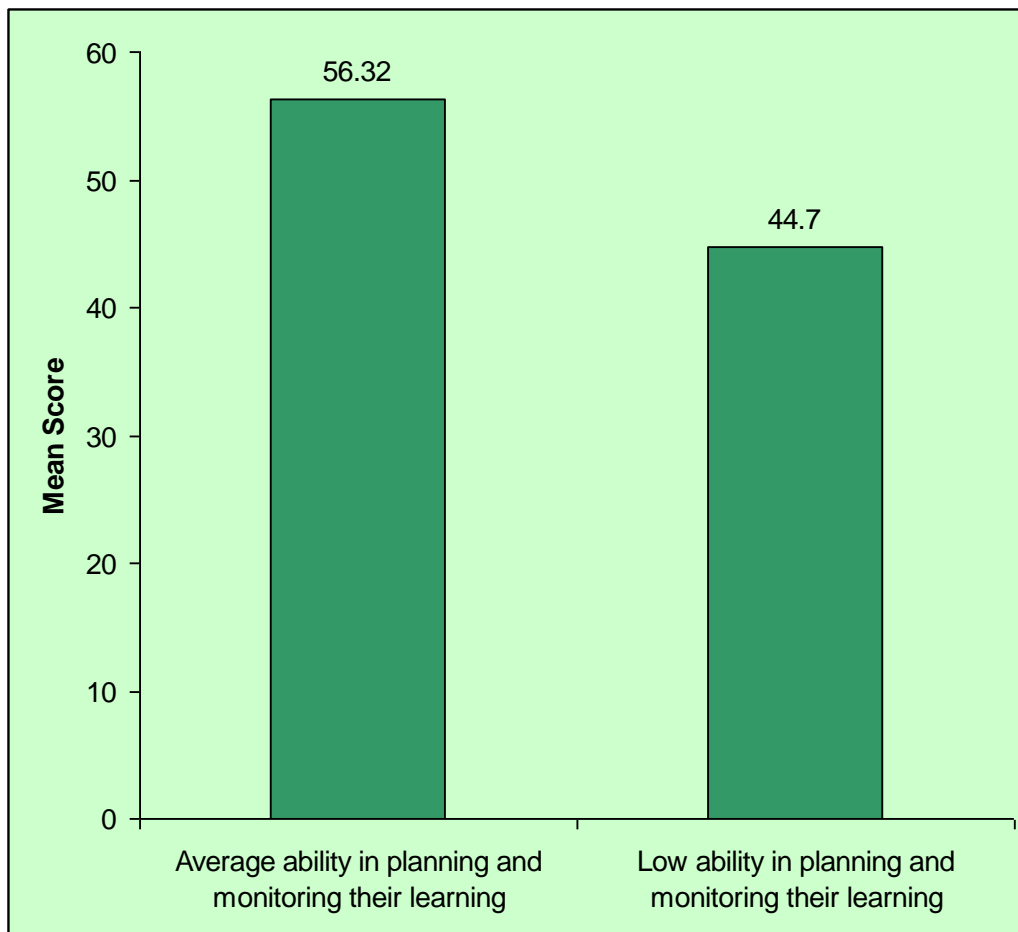| Variable	Group	Number	Mean	S.D.	't' ratios	Level of Significance
Academic Achievement in English	Average ability in planning and monitoring their learning	153	56.32	12.80	4.725	Significant at 0.01 level
	Low ability in planning and monitoring their learning	34	44.70	13.68		

Table2 indicates that the mean and SD scores of academic achievement in English of students having average ability in planning and monitoring their learning and low ability in planning and monitoring their learning are (56.32±12.80) and (44.70±13.68) respectively. The 't' value is 4.725 which is significant at 0.01 level. It depicts that students having average and low ability in planning and monitoring their learning differ significantly on academic achievement in English. Further mean score of students having average ability in planning and monitoring their learning is higher than the students having low ability in planning and monitoring their learning. It indicates that students having average ability in planning and monitoring their learning had academic achievement in English than the students having low ability in planning and monitoring their learning. Thus the hypothesis framed earlier, "There is no significant differencein academic achievement in English of senior secondary school students having average ability in planning and monitoring their learning and low ability in planning andmonitoring their learning" is not retained.

Table 3

Means, S.D.s and 't' ratio of academic achievement in English of high and low ability in planning and monitoring their learning of senior secondary school students

Variable	Group	N	Mean	S.D.	't' ratios	Level of Significance
Academic Achievement in English	High ability in planning and monitoring their learning	413	65.32	13.34	8.646	Significant at 0.01 level
	Low ability in planning and monitoring their learning	34	44.70	13.68		
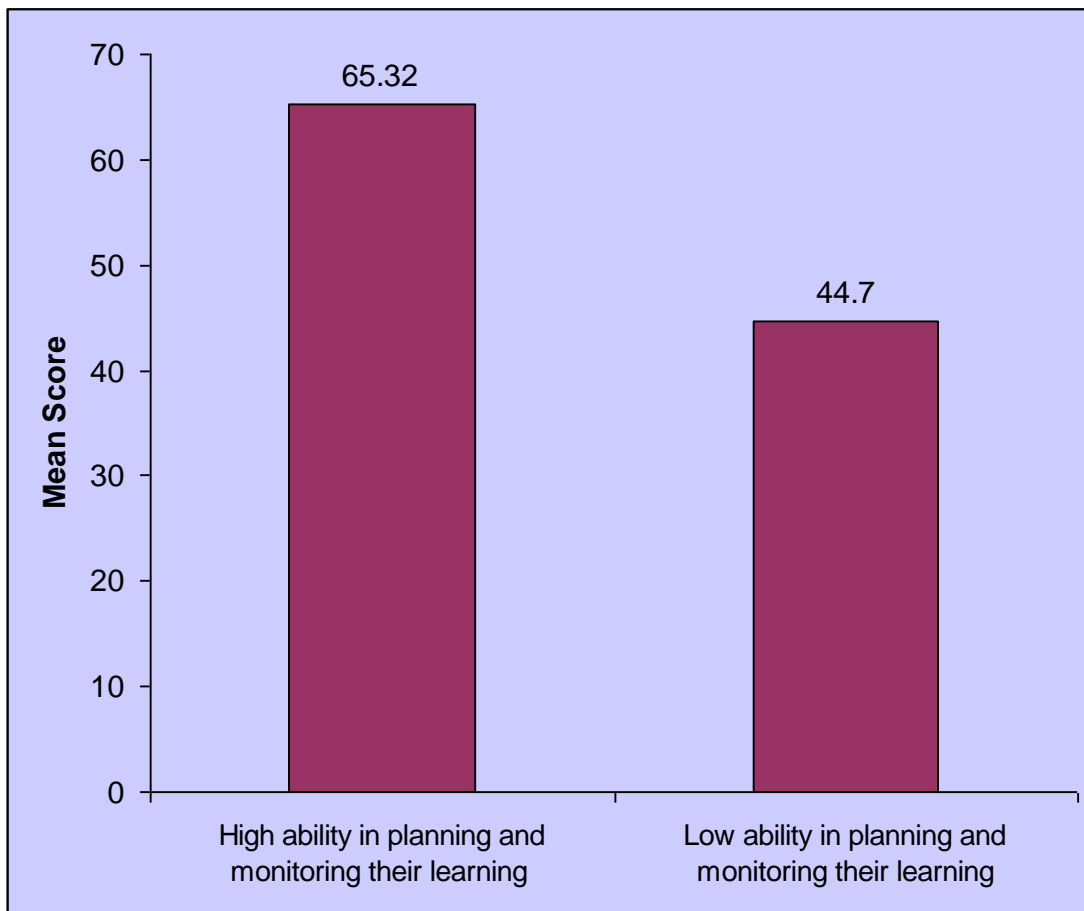
A scrutiny of Table 3 indicates that the mean and SD scores of academic achievement in English of students having high ability in planning and monitoring their learning and low ability in planning and monitoring their learning are (65.32±13.34) and (44.70±13.68) respectively. The 't' value is 8.646 which is significant at 0.01 level. It depicts that students having high and low ability in planning and monitoring their learning differ significantly on academic achievement in English. Further mean score of students having high ability in planning and monitoring their learning is higher than the students having low ability in planning and monitoring their learning. It indicates that students having high ability in planning and monitoring their learning had better academic achievement in English than the students having low ability in planning and monitoring their learning. Thus the hypothesis framed earlier, "There is no significant difference in academic achievement in English of senior secondary school students having high ability in planning and monitoring their learning and low ability in planning and monitoring their learning" is not retained.

FINDINGS OF THE STUDY

1. It was found that students having high ability in planning and monitoring their learning had better academic achievement in English than the students having average ability in planning and monitoring their learning.

2. It was found that students having average ability in planning and monitoring their learning had better academic achievement in English than the students having low ability in planning and monitoring their learning.

3. It was found that students having high ability in planning and monitoring their learning had better academic achievement in English than the students having low ability in planning and monitoring their learning.

DISCUSSION OF RESULTS

This study aimed at effect of planning and monotoring metacognitive ability on academic achievement in English of senior secondary school students. The findings of the study point out many significant implications. The finding of the present study revealed a positive and significant relationship between metacognitive skills and academic achievement. The students with high metacognitive skills have good academic achievement. The present finding of the

study is also supported by **Zulkiply (2013)** who also revealed significant positive relationship between student's academic performance and metacognitive awareness. The results of present study are also in consonance with the findings of **Hasan and Ahmad (2015)** who also showed that the availability of metacognitive strategies among special education students is positive (high than normal), the availability of metacognitive strategies connect planning strategy among special education students is positive, the availability of metacognitive strategies connect monitoring strategy among special education students is positive, the availability of metacognitive strategies connect evaluating strategy among special education students is normally, and the metacognitive strategies influenced on academic achievement. The present study also indicates that it is important to inculcate the development of metacognitive skills in the school curriculum. This is considered important because of its impact in improving academic performance of students in English Language and this is also supported by **Eluemuno and Azuka-Obieke (2013)**. They also found a positive relationship between metacognitive skills and academic performance.

Based on this study it may be recommended that Metacognitive skills should be developed regularly in the classroom so as to help students learn material more efficiently and increase their academic achievement.

IMPLICATIONS

This study revealed significant differences in students' overall academic achievements in English with respect to their Planning and Monotoring Metacognitive Ability. The present study will be very helpful to the policy makers, educational planners, administrators, teacher-educators and parents in particular and society in general in bringing about improvement in various skills of the senior school students by strengthening their metacognitive skills. Based on metacognitive skills, it may be recommended that students may be encouraged to adopt or develop their own skills to enhance their academic achievement. Not only this, students should be imparted knowledge regarding various types of metacognitive skills and to make use of variety of styles in the classroom so that various types of goals may be attained successfully. Because metacognition skill plays a critical role in successful learning, it is important to develop metacognition skills in students, and to do this teachers, parents and the students themselves should play their respective

roles to develop the metacognitive environment, be it in school or at home, by encouraging more metacognitive activities of which some have been mentioned above.

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