METACOGNITIVE AWARENESS AS A PREDICTING VARIABLE OF ACHIEVEMENT IN ENGLISH AMONG SECONDARY SCHOOL STUDENTS

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ABSTRACT

Metacognition basically refers to "thinking about thinking". It is a process of monitoring and controlling one's own cognition and comprises activities like planning, how to approach a learning task, monitoring comprehension, and evaluating the progress. The present study is aimed at examining the effect of metacognitive awareness on the achievement in English of secondary school students. The sample consisted of 1007 secondary school students from Jammu &Kashmir(Rajouri and Poonch districts). For the assessment of metacognitive awareness of secondary school students, the researchers have adapted the metacognitive awareness inventory by Govil(2003) and standardized it afresh. The reliability of the tool is .84.For the assessment of achievement in English the researchers constructed and standardized an achievement test in English. Findings of the study show that majority of the Secondary School Students of Jammu &Kashmir (Rajouri and Poonch districts)possess very low level of metacognitive awareness. It has been found that there exists significant difference in metacognitive awareness with regard to gender, place of living and type of school and above all metacognitive awareness has come out as a strong predictor of achievement in English.

Keywords: Metacognitive awareness, Achievement in English, Secondary school.

INTRODUCTION:

Metacognitive awareness refers to the ability of an individual to control and regulate his/ her own thought process and direct them, whereby both (cognition and emotion play an important role in self-regulation, which is essential for attainment of success in learning and affects a lot of elements such as knowledge acquisition, comprehension, recollection and application (Hartman, 1998). Modern studies in the field of cognitive psychology (Flavell, 1979); (Brown, 1987); (Schraw & Dennison, Assessing metacognitive awareness, 1994) argue that metacognition is comprised of two major components (1) metacognitive knowledge or awareness and (2) metacognitive regulation and are related to each other. Metacognitive knowledge or awareness can be defined as the knowledge of a person about his/her own cognitive processes and consists of declarative, procedural and conditional knowledge as its sub components.Declarative knowledge is the knowledge about what a person know, how he learns and the factors that influences his learning. Procedural Knowledge is the knowledge about various strategies and their implementation that best suit to our task. Conditional knowledge is the knowledge about when and how to use various cognitive strategies in a particular task. Simply metacognitive knowledge or awareness refers to what a person know about he learn, what he know about skills and strategies that best suit to his task and how and when to use such skills and strategies. Regulation of cognition refers to the ability to utilize cognitive knowledge intelligently to attain desired cognitive objective. It is a sort of mental operation in cognitive process, which regulate and control metacognitive knowledge. Regulation of cognition are the metacognitive activities that help us to control our thinking and learning process and consist of three basic skills viz. planning, monitoring and evaluation. Planning includes the selection of suitable strategies and cognitive resources for a particular cognitive task. Monitoring is a self-regulation process, which includes the knowledge of persons'ongoing progress through a cognitive task and our ability to determine our performance. Evaluation involves the assessment of the outcome and determines whether the outcome of our task matches our desired goals or not and the regulation processes, which we have used were effective or not (Schraw & Moshman, 1995).

Studies have shown that metacognitive awareness plays an important role in enhancing students' academic achievement (Tok, Ozgan, & Dos, 2010); (Yeşilyurt, 2013); (Narang & Saini, 2013); (Abdellah, 2014); (Das, 2015) as it helps students to be capable of develop a plan, monitor and evaluate how much it's effective. It also helps learner in learning English language too.Usually learning of language requires various aspects of cognition and self-regulation strategies as these may work together simultaneously and provide helping hand in the learning of English as a second language. Previous researchers (Yen-ju Hou, 2013); (Goudarzi & Ghonsooly, 2014) reported that metacognitive awareness is a positive predictors of English learning. Whereas, some researchers (Wichadee, 2011); (Faramarzi, Karamalian, Dehnavi, & Jali, 2012); (Zhang & Seepho, 2013); (Sun, 2013); (Eluemuno & Azuka-Obieke, 2013) found that various metacognitive strategies help learner in English learning.

The brief review, given above clearly proves that metacognitive awareness has significant effect on academic performance of students. Besides, the findings of the studies prove that metacognition is a strong predictor of achievement in English. Based on these reasons, the investigators felt interested in examining the effect of metacognitive awareness on achievement in English of secondary school students. The results obtained will clarify how metacognitive awareness affects students' achievement in English. Briefly, the objectives of the study are:

1. To find out the level of metacognitive awareness of secondary school students
2. To find out the differences in metacognitive awareness of secondary school students according to gender,place of living and type of school
3. To find out the effect of metacognitive awareness on achievement in English of secondary school students

METHODOLOGY:

The present investigation is based on the population of secondary school students of Rajouri and Poonch district of Jammu and Kashmir. The investigators selected the area because this place is repeatedly hit by terrorism. Administration has to close schools frequently due to disturbances. In such situations if students have higher level of metacognition, then they may be motivated for self-study or with little assistance they can perform better. So all the students studying insecondary schools of Rajouri and Poonch district of J&K, constitute the population of this study. Multistage random sampling technique was employed to collect the data. The study was conducted on the sample of 1007 secondary school students.

In order to measure the metacognitive awareness of the students, the investigators have adopted the metacognitive inventory developed by Govil (2003) and standardized it afresh. This inventory includes 30 items dealing with

both aspects of metacognition i.e., knowledge of cognitive process and regulation of cognitive process. The value of reliability coefficient was found to be 0.84 for the inventory. For the assessment of achievement in English of secondary school students the investigators constructed achievement test in English. The test consist of total 50 items. After collecting the data, the results were drawn with the help of SPSS version 20.

RESULTS AND DISCUSSION:

Objective 1: To find out the level of metacognitive awareness of secondary school students:
As per the objective of the present study, the categorization of the sample into very high level of metacognitive awareness group, high level of metacognitive awareness group, average level of metacognitive awareness group, low level of metacognitive awareness group and very low level of metacognitive awareness group have been made according to the standards of the scale.

Table 1: Data and results of percentage of students in various categories according to their level of metacognitive awareness

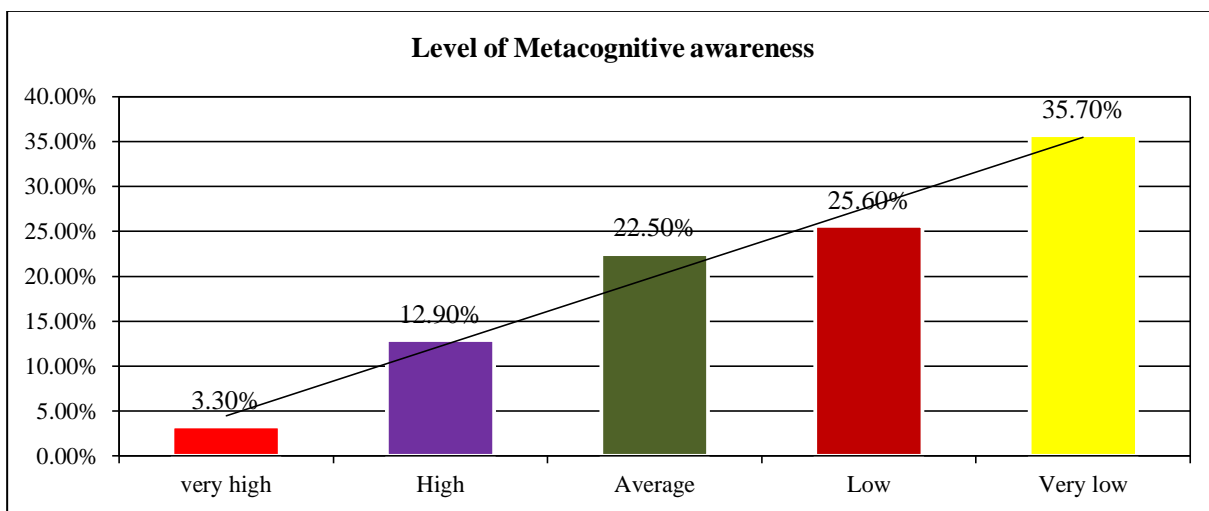| Level of Metacognitive awareness	Number of students	Percentage
Very high	33	3.3 %
High	130	12.9 %
Average	227	22.5 %
Low	258	25.6 %
Very Low	**359**	**35.7 %**

Figure 1: Showing percentage of students in different Level of Metacognitive awareness

Table 1 and its corresponding figure 1 reveal that out of 1007 students, 33 students (3.3 %) have very high level of metacognitive awareness, 130 students (12.9%) have highlevel of metacognitive awareness, and 227 students (22.5%) have average level of metacognitive awareness, 258 students (25.6%) have low level metacognitive awareness and 359 students (35.7) have very low level of metacognitive awareness. This shows that 61.3% students have below average level of metacognitive awareness, whereas only 16.2% students high level of metacognitive awareness

Objective 2: To find out the differences in metacognitive awareness of secondary school students according to gender, place of living and type of school

Differences in metacognitive awareness according to gender:
In order to find out the differences in metacognitive awareness of secondary school students according to gender independent sample t-test has been calculated as shown in the table 2.

Table 2: Comparison of mean scores of metacognitive awareness of secondary school students according to gender

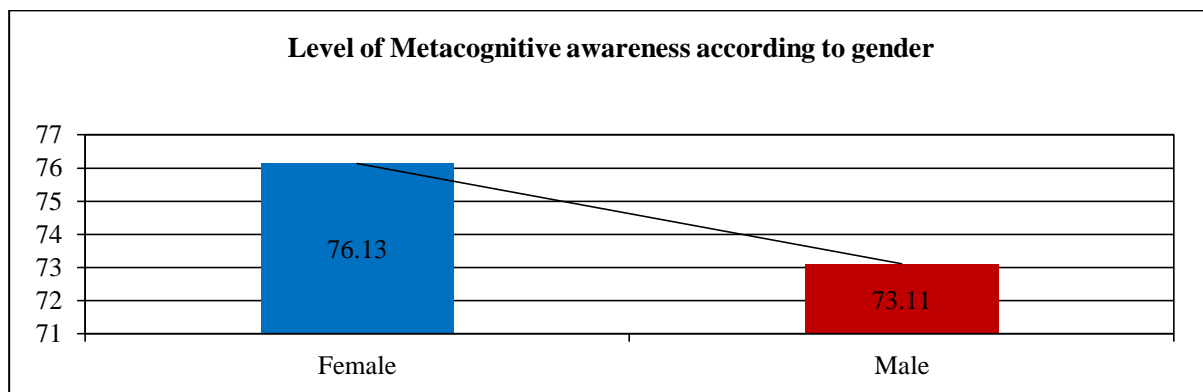| Gender	N	Mean	Std.	t- value	Level of significance
Male	541	73.11	20.47	-2.43	**.015 (significant)**
Female	466	76.13	18.63		

Figure 2: Comparison of mean scores of metacognitive awareness of secondary school students according to gender

Table 2 and its corresponding figure 2 indicates that the mean scores of male and female in metacognitive awareness of secondary school students are 73.11 and 76.13 respectively. Here the calculated t-value for the gender is 2.43, which is less than the table value set for significance at 0.05 level. Thus it can be concluded that there exist a significant difference in the metacognitive awareness with regard to gender.

Differences in metacognitive awareness of secondary school students according to place of living:
To counter this objective independent sample t-test is used as shown in the table 3.

Table 3: Comparison of mean scores of metacognitive awareness of secondary school students according to their location

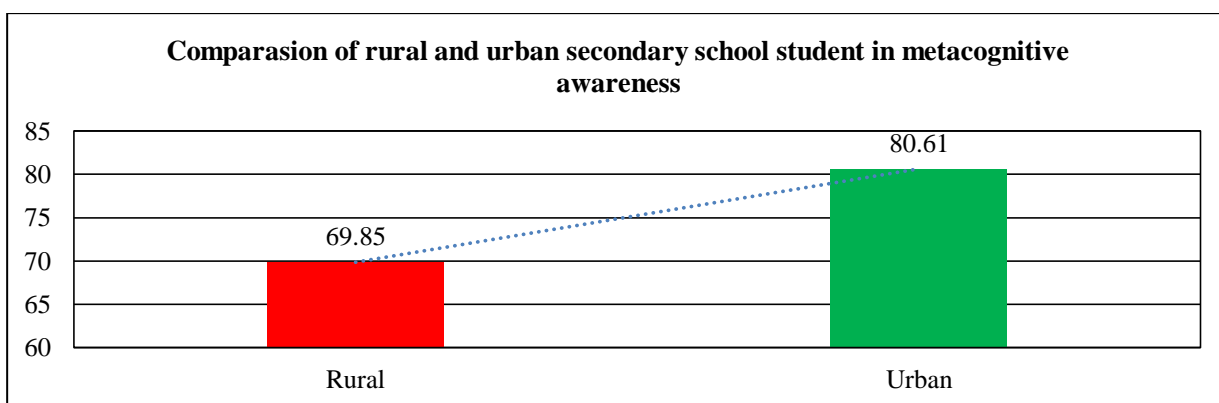| Place of living	N	Mean	Std. deviation	t-value	Level of Significance.
Rural	571	69.85	20.67	-8.92	**.000 (significant)**
Urban	436	80.61	16.45		

Figure 3: Showing comparison of mean score of metacognitive awareness of secondary school students according to their place of living

Table 3 and Figure 3 shows the mean value of metacognitive awareness for rural and urban secondary school

students and also indicate the results of the t test in determining whether there exist a significant difference in metacognitive awareness of students according to their place of living. It is quite clear from the table 3 & fig.3 that the students from urban areas have high level of metacognitive awareness (80.61) than their rural counterparts (69.85). The t-value for the place of living is 8.92, which is less than the tabled value at 0.01 level of significance. Thus the result of t-value shows that there exist a significant difference in metacognitive awareness of secondary school students according to their place of living.

Differences in metacognitive awareness of secondary school students according to the type of school:
In order to find out the differences in achievement in English of secondary school students independent sample t-test is calculated as shown in the table 2.

Table 4: Comparison of mean score of metacognitive awareness of secondary school students according to the type of school

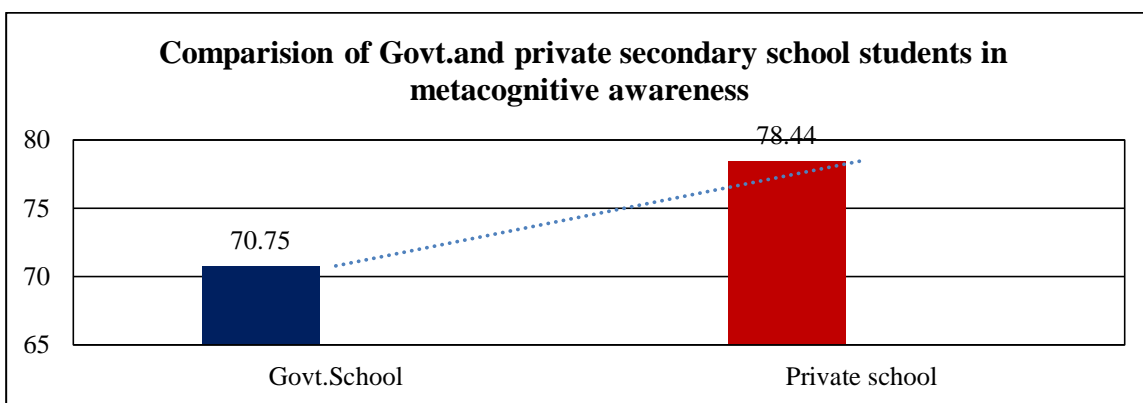| Type of school	N	Mean	Std.	t-value	Level of Significance
Govt.	515	70.75	18.70	-6.31	.000 (significant)
Private	492	78.44	19.94		

Figure 4: Showing comparison of mean score of metacognitive awareness of students studying in Govt. and private secondary school

Table 4 and its corresponding figure 4 indicates that mean scores for metacognitive awareness of students studying in Govt. and private secondary school students are 70.75 and 78.44 respectively. The t-value (6.31) shows that the difference between the mean scores is significant at .01 level. Thus it can be inferred from the result that there exist a significant difference in metacognitive awareness of secondary school students, whereby private secondary school students are better in metacognitive awareness than private secondary school students.

Objective 3: To find out the effect of metacognitive awareness on achievement in English of secondary school students
In order to counter the above objective stepwise linear regression analysis has been used as shown in the table 5, 6 and 7

Table 5: Model summary of Regression analysis effect of metacognitive awareness on achievement in English of secondary school students

Predictive variable	R	R^2	Adjusted R^2	Std. Error	F Change
Metacognitive awareness	.577	**.333**	.333	7.066	502.645**

**Significant at 0.01 level

The close perusal of table 5 shows that coefficient of correlation among the variables is (.577) and its square is (.333). This means that (33%) of variance in English achievement is explained by metacognitive awareness of secondary schools, and the remaining percentage of the variance is still to be accounted for the other variables, which are not included in the study.

Table 6: Summary of ANOVA for Regression Analysis

Source of variation	Sum of squares	df	Mean square	F	Sig.
Regression	25097.444	1	25097.444	**502.645****	.000
Residual	50180.405	1005	49.931		
Total	75277.849	1006			

**Significant at 0.01 level

Table 6 shows that the F value (F = 502.645, P< 0.01) is significant at 0.01 level. This means that regression model is acceptable and metacognitive awareness affect significantly on English achievement.

Table 7*: Regression Coefficients*

Predictive variable	Unstandardized coefficients		Standardized coefficients	t-value	Sig
	B	**Std. Error**	Beta (β)		
Constant	3.763	.872		**4.316****	.000
Metacognitive awareness	.254	.011	**.577**	**22.420****	.000

**Significant at 0.01 level

A close perusal of the table 7 reveals that the standardized coefficient (β), bearing t value for metacognitive awareness (t=22.420, P< 0.01) is significant at 0.01 level, which indicates that metacognitive awareness is a strong predictor of achievement in English of secondary school students. It means that an increase in per unit in metacognitive awareness the English achievement of respondents would increases by.254. The regression equation is shown below:

Y = a + bx

Y= 3.763 + (Metacognitive awareness ×.254)

Here

Y = Dependent variable (English achievement)

a = constant

b = predictive variable (metacognitive awareness)
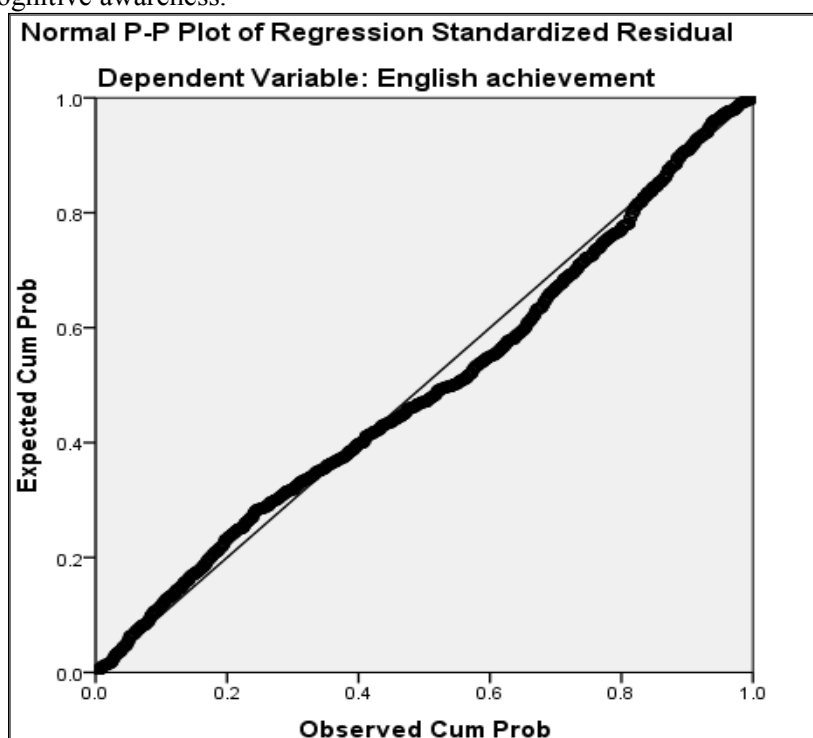
x = Raw score of metacognitive awareness.

Figure 5: Showing Variance of Independent variables on dependent variable

MAJOR FINDINGS OF THE STUDY:

Results of the present study reveal that most of the Secondary School Students from Rajouri & Poonch district of Jammu & Kashmir havevery low level of Metacognitive Awareness.Out of 1007 secondary school students only 16.2% students have higher level of metacognitive awareness and rest of them are either average or below average. In addition to this, the demographic variables(gender, place of living and type of school) play a significant role in deciding the metacognitive awareness. Above all, metacognitive awareness predicts achievement in English at the secondary level.

CONCLUSION AND SUGGESTION:

Metacognitive awareness is very important for secondary students learning. This can be developed in oneself. Students, who are aware of their own cognition or thought processes, perform better and more responsible of their own learning processes. They are able to direct and control their learning in the proper ways so as to build understanding, knowledge, comprehension and the like. They may develop to use various strategies intelligently that best suit to a particular task. Teachers must inculcate metacognitive awareness among secondary school students through the implementation of appropriate learning strategies, because the metacognitive awareness facilitate students' academic performance of students. If students are conscious about what and how they learn then they can find out the most effective and suitable ways of doing so. Teachers must include relevant metacognitive and supportive activities by considering students differences in skills, thought and preferences. It enables students to be more aware of what they are doing and why, and of how the skills they are learning might be used differently in different situations. The easiest ways to inculcate metacognitive awareness among students is simply talking with them about how they do things in the classroom. Teachers should provide innovative teaching methods and learning activities that arouse and develop the metacognitive awareness level of students.

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