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Achievement Motivation of Under-graduate Students in Terms of their Meta-cognitive Abilities, Type of Colleges and Streams of Study

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Abstract
Achievement motivation refers to the level of one's motivation to engage in achievement behaviors, based on the interaction of parameters as need for achievement, expectancy of success and the incentive value of success. While as metacognition is the ability to reflect upon, understand and control one's learning. The present research is conducted on under-graduate students of district Baramulla of the state of J&K in order to study the achievement motivation of under-graduate students in terms of their meta-cognitive abilities, type of colleges and stream of study. For the purpose a sample of 120 under-graduate students was collected from the under-graduate colleges of district Baramulla affiliated with university of Kashmir by using probability sampling techniques which comprises of (30 as high meta-cognitive ability group, 72 as average meta-cognitive ability group and 18 as low meta-cognitive ability group), type of colleges as (76 from govt. colleges & 44 from private colleges) and stream of study as (47 from science stream, 49 from humanities stream & 24 from professional stream). The tools used for data collection were Achievement Motivation Scale developed by Muthee J.M and Immanuel Thomas (2009) and Metacognitive Awareness Inventory developed by Schraw and Dennison (1994). Data was analyzed with the help of Two-Way ANOVA of unequal cell size. Findings of the study revealed that achievement motivation of under-graduate students of district Baramulla was found to be independent of their meta-cognitive abilities, type of colleges and stream of study and also independent by their interaction.
Keywords: Achievement Motivation, Meta-cognitive Abilities, Stream of Study, Type of Colleges & Under-graduate Students.

Introduction

The students of present generation are facing so many problems in this Information and Technology world. So, to reduce these problems and stress of the students and to modify their academic achievement is a very big issue. In this present age majority of the students are not academically motivated to perform and are also unaware of their abilities. As we know that in this present age there is a lot of pressure on the students to perform well and to get succeeded. So to get satisfaction in life, the students have not only to manage and understand the feelings of themselves but also of others. They have to know beyond knowing, to reflect upon, understand and control one's learning more artfully. Achievement motivation and meta-cognitive abilities are something that enables them to achieve their goals. People with low level of achievement motivation are less likely to do better in the life than those who have high level of achievement motivation. Staying motivated helps an individual to remain active and in control. Achievement motivated person do not set those goals for themselves which are too easy but they look forward to challenges and overcome them. So, in general it has been observed that the persons who are achievement motivated have a significantly higher chances of success and progressing in their work as compared to others. According to Vilder (1977), achievement motivation is an example of panning of activities and emotions associated with striving to accomplish some disguised standard of greatness as differentiated for instance will power or friendship. According to Harter & Connell (1984), achievement motivation typically refers to the level of one's motivation to engage in achievement behaviors, based on the interaction of such parameters as need for achievement, expectancy of success and the incentive value of success. As everyone has the need to achieve in spite of the fear of failure. This need varies from person to person, situation to

situation and from place to place depending upon its intensity. In the state of J&K, the intensity of these needs also varies depending upon the type of institutions such as private and govt. and streams of study such as science, humanities and professional. Thus, each student acts on the levels of motivation differently depends upon the type of institution and stream of study they opted. As according to various studies conducted by various researchers as Atkinson (1999), Spence (1983), Wlodkowski (1985), Bar-Tal, Frieze and Greenberg (1974) that all students are influenced by achievement motivation and may also get benefit from increased motivation from teachers. The idea of metacognition has recently become a popular area in education. Researchers and educators are profoundly worried about the sort and levels of learning youngsters are gaining in higher educational institutions. Latent transmission-gathering of data and memorization of realities are not the sorts of discovering that will be required for accomplishment in future. The students will be required to contemplate what they have heard and read, distinguish connections among thoughts, participate in complex basic leadership and screen their own points of view. Studies expressly demonstrate that metacognitive aptitudes assume an imperative part in compelling discoveries that leads to academic development among the students. Metacognition is an idea that has been utilized to refer to variety of epistemological procedures. Metacognition essentially means cognition about cognition; that is, it refers to second order cognitions: thoughts about thoughts, knowledge about knowledge, or reflections about actions. So if cognition includes seeing, comprehension, recalling, etc. at that point metacognition includes considering one's own particular seeing, understanding, recollecting and so forth these different insights about discernments can be named meta observation, meta-cognizance, and meta memory with 'metacognition' remaining the super ordinate term. Schraw & Sperling - Dennison (1994) defined, "Metacognition as the ability to reflect upon, understand and control one's learning. Flavell (1979) defined metacognition as, "Knowledge and cognition about cognitive phenomena". Refined this definition by specifying classes of phenomena that constitute monitoring and control of cognition, such as metacognitive knowledge and metacognitive experiences. These definitions illuminate us about the idea of metacognition as a higher request intellectual process that works at meta-level with executive functions of checking and controlling of our academic achievement and making the students academically motivated throughout the whole course. Is it accurate to say that we are mindful of our own metacognitive procedure? In perspective of this inquiry it is significant the qualification made by Martinez (2006) amongst conscious and automated procedures of meta-cognition. As per him meta-cognitive procedures work at both conscious and automated levels. Thinking that occurs without much awareness or effort is called automated. The metacognitive procedures that work at conscious level are open to the individual and one knows about them. These metacognitive procedures that the individual knows establish metacognitive mindfulness. Metacognitive awareness refers to conscious metacognitive movement and is available. Thus, in the field of education particularly in the academic process the students should much more rely upon the conscious levels which will be much more fruitful in their academic achievement goals.

Methodology

The sample for study was selected from under-graduate colleges affiliated with university of Kashmir of district Baramulla of Kashmir division of the state of J&K by using stratified random sampling. The study consists of 120 students among which 76 students were taken from govt. degree colleges and 44 were taken from private degree colleges out of which 47 were science stream students, 49 as humanities stream students and 24 as professional stream students. The sample of 120 students were further divided into 30 as high meta-cognitive ability group, 72 as average meta-cognitive ability group and 18 as low meta-cognitive ability group. The sample of 120 students were also further divided into 39 as high achievement motivation group, 65 as average achievement motivation group & 16 as low achievement motivation group. The tools used for data collection were Achievement motivation inventory (AMI) and Metacognitive Awareness Inventory (MAI). Achievement motivation inventory (AMI) was developed and standardized by Muthee J.M and Immanuel Thomas (2009). The scale is intended to assess the achievement motivation among learners. The scale consists of 32 items with 18 positively worded items and 14 negatively worded

items. The responses to the items were marked using a five-point Likert format. The points are, completely agree, mostly agree, agree to some extent, mostly disagree and completely disagree. The scoring weights given to these responses were 5, 4, 3, 2 & 1 respectively for positively worded items and 1,2,3,4 & 5 respectively for a negatively worded item. The reliability of the scale has been computed using Cronbach's alpha, which was found to be 0.749. Metacognitive Awareness Inventory (MAI) was developed and tested by Schraw and Dennison in 1994. This Inventory consists of 52 statements divided into two categories as regulation of cognition and knowledge of cognition. Schraw and Dennison found that the internal consistency of MAI ranges from 0.93 to 0.88. They also reported a statistically significant relationship between knowledge and regulation of cognition (r = 0.54 and .45 respectively). . In the present study, the obtained Cronbach alpha coefficient of 0.879 denotes a high reliability for the local sample. Descriptive survey method was used in this study in order to find out the Mean, Standard Deviation and two-way ANOVA of unequal cell size of the analyzed data.

Finding and Result:

Levels of Meta-cognitive Abilities and Achievement Motivation of Under-graduate Students

The first objective of the study was "To study the levels of Meta-cognitive Abilities and Achievement Motivation of under-graduate students of District Baramulla". Firstly, on the basis of levels as given in the manual of the Metacognitive Awareness Inventory as high level, average level and low level, the researcher divided the students into three groups as High Meta-cognitive Ability Group (HMAG), Average Meta-cognitive Ability Group (AMAG) and Low Meta-cognitive Ability Group (LMAG). Details pertaining to the levels of Meta-cognitive Abilities of under-graduate students are given as below:

TABLE 1
SUMMARY OF LEVELS OF META-COGNITIVE ABILITIES OF UNDER-GRADUATE STUDENTS

LEVEL	N	Percentage	Mean	SD
HMCA	30	25 %	136.23	14.263
AMCA	72	60 %	137.07	12.363
LMCA	18	15 %	136.39	13.307

The result of the table 1 shows the number, mean, percentage and standard deviation wise data of under-graduate students of meta-cognitive abilities. From the table it was revealed that 25% under-graduate students have high meta-cognitive abilities with mean scores 136.23 & SD 14.263, 60% have average meta-cognitive abilities with mean scores 137.07 & SD 12.363 and 15% have low meta-cognitive abilities with mean scores 136.39 & SD 13.307. The result of the above table has been presented graphically through the fig. 1.

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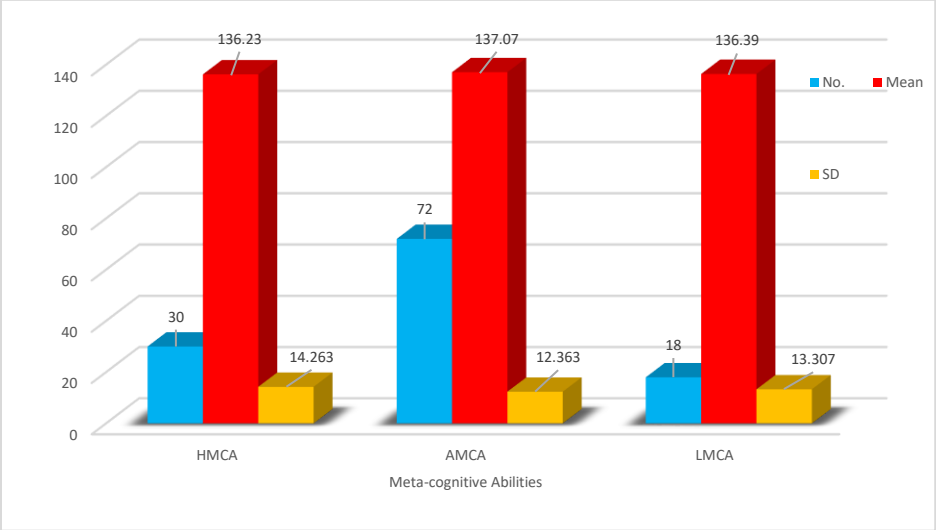

Fig. 01: Bar Graph showing Levels of Meta-Cognitive Abilities of Under-graduate Students

Secondly, on the basis of levels as given in the manual of the Achievement Motivation Scale as high level, average level and low level, the researcher divided the students into three groups as High Achievement Motivation Group (HEIG), Average Achievement Motivation Group (AEIG) and Low Achievement Motivation Group (LEIG). Details pertaining to the levels of Achievement Motivation of under-graduate students are given as below:

TABLE 2
SUMMARY OF LEVELS OF ACHIEVEMENT MOTIVATION OF UNDER-GRADUATE STUDENTS

LEVELS	N	Percentage	Mean	SD
HAMG	39	32.5 %	118.36	9.019
AAMG	65	54.17 %	109.78	10.576
LAMG	16	13.33 %	105.00	9.909

The result of the table 2 shows the number, mean, percentage and standard deviation wise data of under-graduate students of Achievement Motivation. From the table it was revealed that 32.5% under-graduate students have High Achievement Motivation with mean scores of 118.36 & SD 9.019, 54.17% have Average Achievement Motivation with mean scores of 109.78 & SD 10.576 and 13.33% have Low Achievement Motivation with mean scores of 105.00 & SD 9.909. The result of the above table has been presented graphically through the figure 2

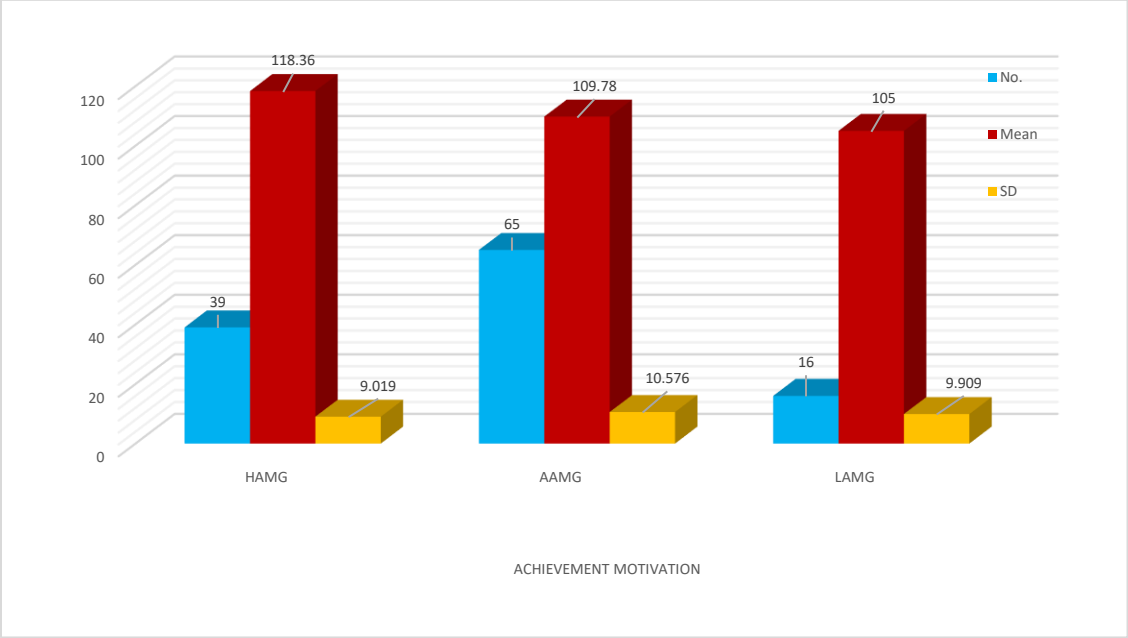

Fig. 2: Bar Graph showing Levels of Achievement Motivation of Under-graduate Students

Influence of type of colleges, meta-cognitive abilities and their interaction on Achievement Motivation of under-graduate students

The second objective of the study was "To study the influence of Type of Colleges, Meta-cognitive Abilities and their interaction on Achievement Motivation of under-graduate students of District Baramulla". There were three groups for Meta-cognitive Abilities namely as High Meta-cognitive Ability, Average Meta-cognitive Ability and Low Meta-cognitive Ability groups. Similarly, on the basis of type of colleges there were two groups as Govt. and Private Colleges. Thus, there were three levels of Meta-cognitive Abilities and two levels of type of colleges. Therefore, the data were to be analyzed with the help of two-way ANOVA of unequal cell size. The results related with this objective is given in the table 3.

TABLE 3
SUMMARY OF TWO-WAY FACTORIAL DESIGN ANOVA OF INFLUENCE OF TYPE OF SCHOOL, META-COGNITIVE ABILITIES AND THEIR INTERACTION ON ACHIEVEMENT MOTIVATION

Source of Variance	SS	df	MSS	F-Value	Sig.
Meta-cognitive Abilities	2479.719	2	118.082	.989	.485
Type of School	39.749	1	39.749	.333	.565
Meta-cognitive Abilities * Type of School	1420.336	2	94.689	.793	.682
Error	9788.949	114	119.377		
Total	1517890.000	120			
Corrected Total	14401.467	119			

From the table 3, it is evident that the calculated F-value for Meta-cognitive Abilities is 0.989 with df = 2, 114 whose two tailed probability of significance is 0.485 which is greater than the table value of 0.05. Hence this value is not significant at 0.05 level of significance. In view of this, the null hypothesis that "There is no significant influence of Meta-

cognitive Abilities on Achievement Motivation of under-graduate students of district Baramulla" is not rejected. Thus, it can be concluded that the Achievement Motivation of under-graduate students of district Baramulla was found to be independent of their Meta-cognitive Abilities.

From the table 3, it is evident that the calculated F-value for Type of Schools is 0.333 with df = 1, 114 whose two tailed probability of significance is 0.565 which is greater than the table value of 0.05. Hence this value is not significant at 0.05 level of significance. In view of this, the null hypothesis that "There is no significant influence of Type of Schools on Achievement Motivation of under-graduate students of district Baramulla" is not rejected. Thus, it can be concluded that the Achievement Motivation of under-graduate students of district Baramulla was found to be independent of their Type of Schools. From the table 3, it is evident that the calculated F-value for the interaction of Meta-cognitive Abilities and Type of Schools is 0.793 with df = 2, 114 whose two tailed probability of significance is 0.682 which is greater than the table value of 0.05. Hence this value is not significant at 0.05 level of significance. In view of this, the null hypothesis that "There is no significant influence of interaction of Meta-cognitive Abilities and Type of Schools on Achievement Motivation of under-graduate students of district Baramulla" is not rejected. Thus, it can be concluded that the Achievement Motivation of under-graduate students of district Baramulla was found to be independent by interaction of Meta-cognitive Abilities and Type of Schools.

Influence of stream of study, meta-cognitive abilities and their interaction on Achievement Motivation of under-graduate students

The third objective of the study was "To study the influence of Stream of Study, Meta-cognitive Abilities and their interaction on Achievement Motivation of under-graduate students of District Baramulla". There were three groups for Meta-cognitive Abilities namely as High Meta-cognitive Ability, Average Meta-cognitive Ability and Low Meta-cognitive Ability groups. Similarly, on the basis of Stream of Study there were three groups as Science, Humanities and Professional stream groups. Thus, there were three levels of Meta-cognitive Abilities and three levels of streams of study. Therefore, the data were to be analyzed with the help of two-way ANOVA of unequal cell size. The results related with this objective is given in the table 4.

TABLE 4.
SUMMARY OF TWO-WAY FACTORIAL DESIGN ANOVA OF INFLUENCE OF STREAM OF STUDY, META-COGNITIVE ABILITIES AND THEIR INTERACTION ON ACHIEVEMENT MOTIVATION

Source of Variance	SS	df	MSS	F-Value	Sig.
Meta-cognitive Abilities	3005.053	2	143.098	1.084	.385
Stream of Study	117.958	2	58.979	.447	.641
Meta-cognitive Abilities * Stream of Study	1867.615	4	71.831	.544	.957
Error	9239.548	111	131.994		
Total	1517890.000	120			
Corrected Total	14401.467	119			

From the table 4, it is evident that the calculated F-value for Meta-cognitive Abilities is 1.084 with df = 2, 111 whose two tailed probability of significance is 0.385 which is greater than the table value of 0.05. Hence this value is not significant at 0.05 level of significance. In view of this, the null hypothesis that "There is no significant influence of Meta-cognitive Abilities on Achievement Motivation of under-graduate students of district Baramulla" is not rejected. Thus, it can be concluded that the Achievement Motivation of under-graduate students of district Baramulla was found to be independent of their Meta-cognitive Abilities. From the table 4, it is evident that the calculated F-value for Stream of Study is 0.447 with df = 2, 111 whose two tailed probability of significance is 0.641 which is greater than the table value of 0.05. Hence this value is not significant at 0.05 level of significance. In view of this, the null hypothesis that "There

is no significant influence of Stream of Study on Achievement Motivation of under-graduate students of district Baramulla" is not rejected. Thus, it can be concluded that the Achievement Motivation of under-graduate students of district Baramulla was found to be independent of their Stream of Study. From the table 4, it is evident that the calculated F-value for the interaction of Meta-cognitive Abilities and Stream of Study is 0.544 with df = 4, 111 whose two tailed probability of significance is 0.957 which is greater than the table value of 0.05. Hence this value is not significant at 0.05 level of significance. In view of this, the null hypothesis that "There is no significant influence of interaction of Meta-cognitive Abilities and Stream of Study on Achievement Motivation of under-graduate students of district Baramulla" is not rejected. Thus, it can be concluded that the Achievement Motivation of under-graduate students of district Baramulla was found to be independent by interaction of Meta-cognitive Abilities and Stream of Study.

Conclusion

- 25% under-graduate students have high level of meta-cognitive abilities, 60% under-graduate students have average level of meta-cognitive abilities while as 15% under-graduate students have low level of meta-cognitive abilities.
- 32.5% under-graduate students have high level of achievement motivation, 54.17% under-graduate students have average level of achievement motivation while as 13.33% under-graduate students have low level of achievement motivation.
- Achievement Motivation of under-graduate students of district Baramulla was found to be independent of their Meta-cognitive Abilities.
- Achievement Motivation of under-graduate students of district Baramulla was found to be independent of their Type of Schools.
- Achievement Motivation of under-graduate students of district Baramulla was found to be independent by interaction of Meta-cognitive Abilities and Type of Schools.
- Achievement Motivation of under-graduate students of district Baramulla was found to be independent of their Stream of Study.
- Achievement Motivation of under-graduate students of district Baramulla was found to be independent by interaction of Meta-cognitive Abilities and Stream of Study.

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