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CONTENTS

Construction and standardization of metacognitive awareness scale (MAS)

Mitali Sonowal

Assistant Professor,
Department of Education
M.D.K.Girls' College, Dibrugarh, Assam, India

Mun Kalita

Assistant Professor,
Department of Education
Dibrugarh University, Dibrugarh, Assam, India.

ABSTRACT

The current study attempts to construct and standardize a Metacognitive Awareness Scale (MAS) for Under Graduate Students. The Metacognitive Awareness Scale (MAS) consisted of 54 items, ranging from 'Strongly agree' to 'Strongly Disagree', covering two dimensions (1) Knowledge about Cognition: (Declarative, Procedural and Conditional Knowledge), (2) Control and Regulation of Cognition: (Planning strategies, Information strategies, Monitoring Strategies, Evaluation Strategies, Volitional Control, and Debugging Strategies). The investigator constructed the scale in two languages, i.e., in English and Assamese language. The reliabilities of the scale are: (r= 0.80) and Cronbach's alpha (α = 0.94). The reliabilities of the Assamese version of the scale are (r= 0.76) and Cronbach's alpha (α=0.93). To determine the validity of the Metacognitive Awareness Scale, the investigator showed the Metacognitive Awareness Scale to several experts i.e., 12 members of the Doctoral Research Committee of the Department of Education, Dibrugarh University, Assam, for seeking judgment regarding the constructs' coverage. Moreover, concurrent validity is also found out by comparing the Metacognitive Awareness Scale (MAS) with Metacognitive Awareness Inventory (MAI) developed and standardized by Schraw and Dennison (1994). Therefore, the coefficient of validity of the English version of the scale is 0.61. Hence, the investigator as a part of doctoral research study, constructed and standardized a Metacognitive Awareness Scale (MAS) for Under Graduate Students.

Keywords: Metacognitive Awareness, Under Graduate Students, Knowledge about Cognition, Control and Regulation of Cognition

INTRODUCTION

Learning signifies a process that develops within a single individual throughout life. However, to be a successful learner, various components such as reflection on our learning, feedback for successful learning, and an awareness of our knowledge are essential. Moreover, a self-regulated learner is organized with their thoughts, self-motivated towards pursuing and achieving goals, self-monitoring regarding their learning process, and self-instructing for appropriate corrections in their learning process. This concept of self-regulating behavior is known as METACOGNITION. John Flavell (1976) offered an early, commonly accepted definition of metacognition as "knowledge concerning one's cognitive processes and products or anything related to them". Metacognition refers to the cognitive control and monitoring of first-order cognitive processes. 'Meta means beyond' and 'cognition' means, 'to know'. Metacognition refers to higher-order thinking, which involves an individual's active control over the cognitive processes that are engaged in learning. Metacognitive awareness helps a learner to be self-directed and self-regulated and also to be aware of one's patterns of thinking. Promoting metacognition begins with building awareness among

learners that metacognition exits, differs from cognition, and increases academic success. Schraw and Dennison (1994) categorized the measurement of the metacognitive awareness of an individual based on two components: Knowledge about Cognition and Regulation of Cognition. Hence, the investigator felt the need of the hour to develop and standardize the Metacognitive Awareness scale for the Under Graduate students.

Purpose of the scale:

The purpose of the scale is to measure the Metacognitive Awareness of Under Graduate students. The development of MAS is based on Under Graduate students whose age ranges from 18 to 24 years.

Construction of the Metacognitive Awareness Scale (MAS):

Objective 1: *"To construct and Standardize a Metacognitive Awareness scale for the Under Graduate students."*

The steps followed to construct and standardize the scale are discussed. To fulfill Objective no. 1, the main objective is divided into the following sub-objectives:

a) To prepare a draft Metacognitive Awareness scale.

b) To try out the draft Metacognitive Awareness scale on a sample.

c) To make an item analysis of the draft Metacognitive Awareness scale to measure the Metacognitive Awareness of the Under Graduate level Students.

d) To select the items for the final Metacognitive Awareness scale.

e) To determine the reliability of the Metacognitive Awareness scale.

f) To determine the validity of the Metacognitive Awareness scale.

a). Preparation of the draft Metacognitive Awareness Scale (MAS): To prepare the first draft of the Metacognitive Awareness Scale, the research literature related to the construction of Metacognitive Awareness scale are consulted thoroughly. Different dimensions of the Metacognitive Awareness scale are also consulted. Some scales related to Metacognitive Awareness are also consulted and taken as a guide for constructing the present scale. The following scales are mainly consulted for the construction of the present scale. Some among them are: (i) The Motivated Strategies for Learning Questionnaire (MSLQ) by P.R. Pintrich, D.A.F. Smith, T. Garcia, and W.J.McKeachie (1991), (ii) The Metacognitive Awareness Inventory (MAI) by G. Schraw and R. Dennison (1994), (iii) Metacognition Inventory (MCI) by P. Govil (2003).

 ➤ From the study of related literature, two dimensions (1) Knowledge about Cognition: (Declarative, Procedural and Conditional Knowledge), (2) Control and Regulation of Cognition: (Planning strategies, Information strategies, Monitoring Strategies, Evaluation Strategies, Volitional Control, and Debugging Strategies) of metacognitive awareness are found out and taken for the construction of the present Metacognitive Awareness Scale (MAS). The test consisted of 68 items, distributed over two dimensions along with sub-dimensions of Metacognitive Awareness.

 ➤ Necessary editing of the statements is done by the investigator in order to avoid repetition of statements, and also for establishing more clarity of the statements. Statements are shown to several experts i.e., 12 members of the Doctoral Research Committee of the Department of Education,

Dibrugarh University, Assam for seeking judgment, and suggestions regarding the constructs' coverage. A total of 68 statements are selected out of which 34 statements are favorable and 34 statements are unfavorable.

➢ Each statement in the Metacognitive Awareness Scale (MAS) is followed by five responses as: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD). The response with which the respondent agrees by putting a tick mark (√) is calculated. The scoring keys for responses are: For Favorable items 5= Strongly Agree (SA), 4= Agree (A), 3= Undecided (U), 2= Disagree (D), and 1= Strongly Disagree (SD). Whereas, for Unfavorable items 1= Strongly Agree (SA), 2= Agree (A), 3= Undecided (U), 4= Disagree (D), and 5= Strongly Disagree (SD). Higher scores in the Metacognitive Awareness Scale will denote higher metacognitive awareness among the Under Graduate Students.

➢ The distribution of the selected items of the draft Metacognitive Awareness Scale (MAS) is given in Table: 1

Table: 1 Distribution of the selected items of the Draft Metacognitive Awareness Scale (MAS)

Dimensions	Items			No. of Items		Total
		Favorable	Unfavorable	Favorable	Unfavorable	
1. Knowledge about Cognition	Declarative Knowledge	1, 19, 28, 46, 64, 67	10, 37,55, 61,66, 68	6	6	12
	Procedural Knowledge	2, 20, 38	11, 29, 47	3	3	6
	Conditional Knowledge	30, 39,62	3, 12, 21, 48, 56, 65	3	6	9
2. Control and Regulation of Cognition	Planning strategies	4, 13, 31, 57	22, 40, 49	4	3	7
	Information strategies	5, 23, 41	14, 32, 50	3	3	6
	Monitoring strategies	6, 24, 42, 51	15, 33, 58	4	3	7
	Evaluation strategies	7, 16, 25, 34	43, 52, 59, 63	4	4	8
	Volitional control	17, 35, 44, 60	8, 26, 53	4	3	7
	Debugging strategies	27, 45, 54	9, 18, 36	3	3	6
	Total			34	34	68

b). Try out of the Draft Metacognitive Awareness Scale (MAS):

➢ **Sample:** For the pilot study, the draft Metacognitive Awareness Scale is administered to 320 Under Graduate students (BA, B.Sc, and B.Com) of Dibrugarh District. The Colleges for the pilot study are selected by using the purposive sampling technique and incidental sampling technique is used for the selection of Under Graduate students.

➢ **Instruction:** Necessary instructions are prepared and included at the beginning of the draft Metacognitive Awareness Scale. Oral instructions are also provided whenever necessary.

➢ **Scoring Procedure:** For the try-out of the draft Metacognitive Awareness Scale, scoring weights of 5, 4, 3, 2, 1 are used for SA, A, U, D, and SD for the favorable statements. On the other hand, the scoring weights of 1, 2, 3, 4, 5 are used for the individual responses for unfavorable statements.

➢ **Administration of the Draft Metacognitive Awareness Scale:** The procedures followed in administering the draft of the scale are discussed below: (a) First, a good rapport is developed between the investigator and the respondents by having some friendly conversation. (b) Conducive and appropriate sitting arrangement is made, and the draft of the MAS is distributed among the students present. The students are requested to read the instructions carefully that is provided in the scale, and necessary oral instructions are also given by the investigator for proper and clear understanding of the draft scale. After 60 minutes, all the responses that are filled in the draft Metacognitive Awareness Scale are collected from the students by the investigator.

c). Item Analysis of the Draft Metacognitive Awareness Scale (MAS): The following steps are followed for item analysis of the draft Metacognitive Awareness Scale.

➢ The responded draft Metacognitive Awareness Scale of 320 Under Graduate Students are scored by using the scoring key as mentioned earlier and then arranged in descending order i.e., from the highest score to the lowest score.

➢ On the basis of the scores based upon the responses to all the statements, 25 % (i.e., 80 Under Graduate Students) of Under Graduate Students from the top and 25 % (i.e., 80 Under Graduate Students) of Under Graduate Students from the bottom were taken apart. Thus, two criterion groups, viz. High and low scoring groups in terms of which to evaluate the statements are constituted.

➢ The mean scores obtained on each individual statement by both high scoring group and the low scoring group is calculated.

➢ The discriminating powers of a particular item are calculated. Thus, the difference between the mean scores obtained by the high scoring group and the low scoring group is computed for a particular item. The difference is considered as the discriminating power of that particular item.

➢ To find out whether the discriminating power of a particular item is significant or not, 't' value of each item is found out. The 't' values are found out by using the formula:

$$t = \frac{(M_1 - M_2)}{SE_D}$$

➢ A 't' value equal to or greater than 1.75 indicates that the average response of the high and low group to a statement differs significantly (Edwards, 1957).

➢ Items having 't' value > 1.75 and < 1.75 are then identified. Out of 68 items, 64 items have a significant 't' value (t >1.75). The distribution of the 64 items according to different dimensions is shown in Table: 2

Table: 2 Items having 't' ≥ 1.75

Dimensions		Items		No. of Items		Total
		Favorable	Unfavorable	Favorable	Unfavorable	
1. Knowledge about Cognition	Declarative Knowledge	1, 19, 28, 46, 64, 67	10, 37, 61,66, 68	6	5	11
	Procedural Knowledge	2, 20, 38	11, 29, 47	3	3	6
	Conditional Knowledge	30, 39,62	3, 12, 48, 56, 65	3	5	8
2. Control and Regulation of Cognition	Planning strategies	4, 31, 57	22, 40, 49	3	3	6
	Information strategies	5, 23, 41	14, 32, 50	3	3	6
	Monitoring strategies	6, 24, 42, 51	15, 33, 58	4	3	7
	Evaluation strategies	7, 16, 25, 34	43, 59, 63	4	3	7
	Volitional control	17, 35, 44, 60	8, 26, 53	4	3	7
	Debugging strategies	27, 45, 54	9, 18, 36	3	3	6
	Total			**33**	**31**	**64**

d). Item Selection: The investigator decided to select 54 items, including favorable and unfavorable items, from the 64 items having satisfactory value for the final draft Metacognitive Awareness Scale. The distribution of the items that are selected for the final MAS draft is shown in Table: 3

Table: 3 Items for the Final draft Metacognitive Awareness Scale (MAS)

Dimensions		Items		No. of Items		Total
		Favorable	Unfavorable	Favorable	Unfavorable	
1. Knowledge about Cognition	Declarative Knowledge	10, 37	1, 19, 28, 46	2	4	6
	Procedural Knowledge	2, 20, 38	11, 29, 47	3	3	6
	Conditional Knowledge	12, 21	3, 30, 39, 48	2	4	6
2. Control and Regulation of Cognition	Planning strategies	4, 22, 49	13, 31, 40	3	3	6
	Information strategies	5, 23, 41	14, 32, 50	3	3	6
	Monitoring strategies	6, 15, 33, 42	24, 51	4	2	6
	Evaluation strategies	7, 16, 25	34, 43, 52	3	3	6
	Volitional control	17, 35, 53	8, 26, 44	3	3	6
	Debugging strategies	27, 45, 54	9, 18, 36	3	3	6
	Total			**26**	**28**	**54**

e). Reliability of the Metacognitive Awareness Scale (MAS):

To compute the reliability of the Metacognitive Awareness Scale. The investigator adopted the following procedure:

➢ The split-half technique of finding reliability is decided as appropriate, keeping in view the nature and purpose of the scale.

➢ In order to compute the split-half reliability, the final form of Metacognitive Awareness scale is administered upon a sample of 200 Under Graduate students, out of which 100 English Medium and 100 Assamese Medium students of Dibrugarh district.

➢ The odd-even method is used to split the test into two equal halves.

➢ The scoring of each answer sheets are done separately for these two halves of odd and even items.

➢ Then, the coefficients of correlation between these two parts of the test are calculated using the formula of product moment coefficient of correlation, which showed half test reliability. It is found as 0. 67.

➢ The coefficient of reliability of the whole test is then estimated by using Spearman-Brown Prophecy Formula, and the reliability of the full test is found to be 0.80, which is a satisfactory one for such research. The estimated Cronbach Alpha is 0.94.

➢ The investigator also used split-half technique to estimate the reliability of the Assamese version of the scale. The reliability coefficient of the translated version is 0.76. The estimated Cronbach Alpha is 0.93

➢ The reliabilities of the Metacognitive Awareness Scale (MAS) of both the English and Assamese version is shown in Table: 4

Table: 4 Reliabilities of the Metacognitive Awareness Scale (MAS)

N	Split-Half Reliability	Cronbach Alpha
100 (English Version)	0.80	0.94
100 (Assamese version)	0.76	0.93

f). Validity of the Metacognitive Awareness Scale (MAS):

➢ To determine the validity of the Metacognitive Awareness Scale, content validity is found out. The investigator showed the Metacognitive Awareness Scale to several experts i.e., 12 members of the Doctoral Research Committee of the Department of Education, Dibrugarh University, Assam, for seeking judgment regarding the constructs' coverage, and after incorporating specific suggestions offered, the draft of the scale is considered to be satisfactory for the final try-out.

➢ The investigator has also calculated the concurrent validity. For this, the Metacognitive Awareness Scale (MAS) constructed by the investigator and Metacognitive Awareness Inventory (MAI) constructed by Schraw and Dennison (1994) are analyzed. The scores on the Metacognitive Awareness Scale (MAS) constructed by the investigator are correlated with the scores obtained on the Metacognitive Awareness Inventory (MAI) constructed by Schraw and Dennison (1994), and the coefficient of validity of the English version is found as 0.61.

Conclusion

Therefore, the investigator has constructed and standardized the Metacognitive Awareness Scale (MAS) for the Under Graduate level students of Dibrugarh District, Assam. The final MAS consists of 54 items ranging from ' Strongly agree' to 'Strongly Disagree', covering two dimensions (1) Knowledge about Cognition: (Declarative, Procedural and Conditional Knowledge), (2) Control and Regulation of Cognition: (Planning strategies, Information strategies, Monitoring Strategies, Evaluation Strategies, Volitional Control, and Debugging Strategies). The reliabilities of the scale are: (r= 0.80), and Cronbach's alpha (α = 0.94) for the English version. The reliabilities of the Assamese version of the scale are: (r= 0.76), and Cronbach's alpha (α=0.93). The concurrent validity of the English version of the scale is found as 0.61.

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Corresponding Author: Ms. Mitali Sonowal (E Mail: mitalisonowaldib@gmail.com)

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Goal-Orientation and Academic Performance of the Under Graduate (U.G.) Students of Dibrugarh District, Assam

Mitali Sonowal* Mun Kalita**

Abstract

Goal-Orientation in Undergraduate Students: This analysis explores the goal-orientation of undergraduates in the Dibrugarh District of Assam. A sample of 778 students from 12 General Degree Colleges was utilized, using the Goal-Orientation Scale (GOS) developed by Webster and Zweig (2004). Descriptive methods, standard deviation, mean, skewness, kurtosis, correlation, and ANOVA were employed for data analysis. The results indicate a correlation between academic performance and goal-orientation among the students. Additionally, no significant difference in goal-orientation was found among students in different streams (Arts, Sciences, Commerce) in the Dibrugarh District.

Keywords: Academic Performance, Goal-orientation, Under Graduate level Students, Performance goal-orientation, Mastery goal-orientation

Introduction

In an educational endeavour, an important motivational factor that has an influence on the student's academic performance is the 'Goal-orientation'. It is referred to as the student's reason for participating in a task. It serves as a valuable conceptual framework for comprehending how individuals acquire, attain, or exhibit learning and performance abilities. A key motivating factor in selection, training, and assessment is goal-orientation, or how individuals approach a task. It also refers to the disposition which focuses on developing or demonstrating ability and skills in a performance situation (Dweck, 1986). Goal-orientation influences students' emotive responses, cognitive approaches, and performance behavior. In any educational context, academic performance is highly significant since it demonstrates the students' degree of competency in terms of their educational content. It has frequently been observed that there are students with similar learning capacities and aptitudes but vastly different academic successes. Goal-orientation may thus be very important in affecting and advancing students' academic performance. In the context of various research studies and reviews of literature, several goal theorists have conceptualized the concept of goal-orientation into various frameworks. Such as the dichotomous framework consists of **Learning or**

*Assistant Professor, Department of Education, M.D.K.Girls' College, Dibrugarh, Assam, India
** Assistant Professor, Department of Education, Dibrugarh University, Dibrugarh, Assam, India

Mastery goal-orientation, where an individual focuses on the need to learn as well as enhance their skills and abilities, and **Performance goal-orientation**. They try to show competence and expertise about their abilities in front of others and avoid negative judgments about their abilities. Apart from the existing dichotomy framework, an alternative framework of goal-orientation has emerged and been theorized by various experts and researchers(Pintrich, 2000; Church&Elliot,1997; Midgley&Middleton,1997; &Elliot and Harackiewicz, 1996). Again, apart from the trichotomous framework, a 2×2framework of goal-orientation (McGregor and Elliot (2001) has also been constructed. Therefore, both cognitive and affective aspects of an individual are demonstrated by goal- orientation. Being goal-oriented enables us to think, feel and act in certain ways. Furthermore, the findings of the goal-orientation research described in the review of the literature and various studies show that, regardless of the numerous goal frameworks, different goal- orientations have distinct effects on achievement-related behavior.

Review of literature

According to the review of the literature, Dixit (2012) found no significant differences between General, Commerce, and Science prospective secondary teachers based on learning goal orientation. Kadhiravan (2012), Gadatia and Mohalik (2013) also observed no significant differences between students studying at different streams with respect to goal-orientation. In terms of goal orientation, Kadhiravan (2012) similarly discovered no discernible differences between students majoring in biology and computer science. Additionally, Gadatia and Mohalik (2013) found no discernible differences in the academic achievement goal orientation of student-teachers in the arts and sciences.

The study conducted by Mattern (2005) observed a connection between mastery goals and course grades, Countinho (2007), discovered a relationship between GPA and mastery goals, but found no correlation between GPA and performance goals Barzegar (2012), Hejazi, et al., (2012), Al-Harthy and Was (2013), discovered a connection between mastery goals and total scores, Kavitha (2014), found a correlation between Tamil achievement scores and goal orientation, Pourheidari, et al., (2015) found a correlation between academic performance and achievement goals. Moreover, Sharma and Nasa (2016), Kasaw and Astatke (2017), Fidrayani(2018), Neroni(2018), Nganga(2018), Suprayaogi (2019) also discovered a relationship between goals and academic achievement. However, the research conducted by Sarwar, et al., (2009), Was and Beziat (2015), Akpur, (2016), and Xuan (2020) observed that there is no correlation between academic performance and goal orientation.

Need and Significance of this study

Goal-Orientation in Undergraduate Students: This research focuses on the correlation between academic performance and goal-orientation among undergraduates in Dibrugarh, Assam. It aims to identify the factors that foster motivating goals in order to enhance academic performance (Roebken, 2007). Goal orientation refers to students' specific learning objectives in a learning environment (Dweck, 1986). Understanding the relationship between goal orientation, academic engagement, and performance is crucial for curriculum, instruction, and administration (Elliot & Dweck, 1988; Meece & Holt, 1993). Several studies have shown that goal orientation influences students' cognitive, behavioral responses, and metacognitive strategies (Ames & Archer, 1988; Ames, 1992). Additionally, this research compares goal-orientation among undergraduates in different streams of study (Arts, Science, Commerce) in Dibrugarh District, Assam.

Statement of the problem

The current research is entitled as: **"Goal-Orientation and Academic Performance of the Under Graduate Students of Dibrugarh District, Assam."**

Objectives

1. To study the correlation between Goal-Orientation and Academic Performance of the U.G. Students of Dibrugarh District, Assam.

   2. To compare the Goal-Orientation of the U.G. students of Dibrugarh District, Assam, in relation to their: (i). Streams of Study (Arts, Science and Commerce)

Hypotheses

1. There is no significant correlation between Goal-Orientation and Academic Performance of the U.G. Students of Dibrugarh District, Assam.

2. There is no significant difference between the Under Graduate (U.G.) Students studying in the Arts, Science and Commerce stream of Dibrugarh District with respect to Goal-Orientation.

Method and procedure

1. **Methods used:** The research was conducted using the 'Descriptive Method', which took into account the nature of the study's aims and the kinds of data that needed to be gathered.

2. **Sample and sampling technique used:** Out of the 21 General Degree Colleges in Dibrugarh, Assam, 12 Colleges were selected purposively for this research, and the student sample was chosen using the incidental sampling. For the current research, a sample of 778

undergraduates (B.A., B.Sc., and B.Com.) from Dibrugarh district, Assam, who completed the B.A., B.Sc., B.Com, final examinations for the academic session 2018-2019 declared by Dibrugarh University has been chosen.

Tools used

1. **Goal-Orientation Scale (GOS):** A GOS comprised of 21 questions constructed and standardized on a 7-point Likert-type scale, from "Strongly Disagree" to "Strongly Agree," was developed by Zweig and Webster in 2004. After scoring the reverse items denoted as (R)*, the scores are derived by averaging the results across all dimensions. Higher scores indicate more goal-oriented behavior. The reliabilities are Performance-Orientation (approach) is α =.83, Performance-Orientation (avoidance) is α = .77, and Learning-Orientation is α= .83. Test-Retest reliability (*over a 3-month period*) was assessed. Performance-Orientation (Approach) had a test-retest reliability value of r =.84, Learning-Orientation of r =.73 and Performance-Orientation (Avoidance) of r =.78. This tri-dimensional goal-orientation measurement is readily adaptable for adults by changing the directions to fit various settings (for example, Work or leisure environments, university, academics). This measure has been utilized in several research to determine students' goal-orientation (viz. Kavitha, 2014; Kadhiravan, 2012). The Goal-Orientation Scale was translated into Assamese by the researcher, and Cronbach Alpha and split-half reliability were determined to be (α =.72) and (r =.78), respectively. Moreover, the scale was administered for the second time on the same sample of 100 U.G. Students of Dibrugarh district, Assam, after three months. The Test-retest reliabilities are Performance Orientation (Avoidance) is r = .72, Learning Orientation is r = .70, and Performance Orientation (Approach) is r = .73. It was also discovered that each dimension's Cronbach's alpha coefficient, or 'α', was as follows: Learning Orientation α=.82, Performance Orientation (Avoidance) α =.6, and Performance Orientation (Approach) α =.70.

2. **Academic Performance:** The total percentage of marks obtained by B. A., B.Sc., and B.Com. 6th-semester students in the B. A., B. Sc., and B. Com. Final Examination of the Academic Session 2018-2019 declared by Dibrugarh University is taken into consideration in the current study when determining the academic performance of the undergraduates in the Dibrugarh District of Assam.

ANALYSIS AND INTERPRETATION OF DATA:

1. **Objective No. 1. To study the correlation between Goal-Orientation and Academic Performance of the Undergraduates of Dibrugarh District, Assam.**

Hypothesis: "*There is no significant correlation between Goal-Orientation and Academic Performance of the U.G. students of Dibrugarh District, Assam.*"

Table No. 1: Correlation between Goal-Orientation and Academic Performance of the Undergraduate students of Dibrugarh District

Variables	N	df	'r'	Inference
Goal-Orientation	778	776	0.112	Significant at 0.05 level
Academic Performance				

Table 1 displays that the calculated r-value between Academic Performance and Goal-Orientation of the Undergraduates of Dibrugarh district was observed to be 0.112. The r-value (0.112) is higher than the tabulated r-value (0.062) and (0.08), with 776 df, and is significant at 0.05 level of significance. Therefore, the null hypothesis, *There is no significant correlation between Goal-Orientation and Academic Performance of the Under Graduate students of Dibrugarh District,* is rejected and concluded that *there is a significant correlation between Goal-Orientation and Academic Performance of the Under Graduate students of Dibrugarh District.*

The study conducted by Mattern (2005) discovered a relationship between course grades and mastery goals, Countinho (2007) discovered a relationship between mastery goals and GPA, Barzegar (2012), Hejazi, et al., (2012), Al-Harthy and Was (2013), discovered a connection between mastery goals and total scores, Narang and Saini (2013), Kavitha (2014), found a correlation between Tamil achievement scores and goal orientation, Pourheidari, et al., (2015) found a correlation between academic performance and achievement goals. Moreover, Sharma and Nasa (2016), Kasaw and Astatke (2017), Fidrayani(2018), Neroni (2018), Nganga (2018), Suprayaogi (2019) also found a correlation between goals and academic performance. Hence, all these studies support the findings of the present research.

However, the above results of the current research are found to be contradictory with the study conducted by Countinho (2007), who found no correlation between performance goals and GPA, Sarwar, (2009), Was and Beziat (2015), Akpur, (2016), and Xuan, et al., (2020) who observed there was no correlation between academic achievement and goal-orientation.

2. **Objective No. 2. To compare the Goal-Orientation of the Under Graduate students of Dibrugarh District in relation to their Streams of study (Arts, Science and Commerce)**

Hypothesis: *There is no significant difference between Students studying at Arts, Science and Commerce stream of Dibrugarh District with respect to Goal-Orientation.*

Table No. 2: Comparison of Goal-Orientation among the Arts, Science and Commerce Under Graduate Students of Dibrugarh District

Source of Variation	Sum of Squares	df	Mean Squares	F	Inference
Among Groups	1351.18	2	675.59	2.18	Not significant at 0.05 level
Within Groups	291190.59	942	309.11		
Total	292541.77	944			

Regarding the comparison among the Arts, Science and Commerce U.G. students of Dibrugarh with regard to Goal-Orientation, Table No.2, displays that the computed value of F is 2.18, which is less than the tabulated value F = (3.01) and is considered to be not significant at 0.05 level of significance. Therefore, the null hypothesis *"There is no significant difference between Students studying at Arts, Science and Commerce stream of Dibrugarh District with respect to Goal-Orientation"* is accepted. The study done by Dixit (2012), Kadhiravan (2012), and Gadatia & Mohalik (2013) support the findings of the current research, i.e., Dixit (2012) found no major distinction between General, Commerce and Science prospective secondary teachers based on learning goal orientation. Kadhiravan (2012) found no major difference among students that are studying Biology and Computer science with regard to their goal orientation. And Gadatia & Mohalik (2013) also observed no difference in academic achievement goal-orientation of Arts and Science students-teachers.

Major findings

1. There is a significant correlation between Goal-Orientation and Academic Performance of the students of Dibrugarh District.

2. There is no significant difference between Students studying in the Arts, Science and Commerce stream of Dibrugarh District with respect to Goal-Orientation.

Educational Implications and Conclusion

The current research discovered a significant correlation between academic performance and goal orientation among Dibrugarh District U.G. students. Therefore, it is evident from the study that for students who are highly goal-oriented, academic performance is also high. Therefore, good goal-orientation skills are required of the students to raise their level of academic performance. Moreover, in the higher educational level, in all the streams viz. for Arts, Science and Commerce streams of study, students should be taught to be goal oriented. These can help

the students to focus on their tasks and evaluate their learning process as well, which can also help them to learn more effectively and participate more constructively in academic activities.

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