

Achievement Motivation of Secondary Student Teachers in relation with their Academic Achievement and some other variables

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Abstract

There are several factors that positively or negatively affect the teacher training programme. Among those factors achievement motivation towards becoming a successful teacher is very important. The paradigm of education is going to be gradually changed in 21st century. It is being learner centric education and emphasise is being laid down not to just create a knowledgeable student but the endeavour is for making a self-motivated lifelong learner. Achievement motivation leads an individual to do hard and smart work with full of persistency to be successful in desired field of life. This study was carried out to explore the achievement motivation among secondary student teachers in relation with their academic achievement, academic qualification, type of institutions and streams of the study. There were 175 secondary student teachers selected as the sample. Data was randomly selected from the population. Mean, S.D., t-ratio, F-test and co-efficient of correlation (r) were applied to test the hypotheses of the study. A moderate level of positive relationship was found between achievement motivation and academic achievement of secondary student teachers. There was a significant difference found in the level of achievement motivation of secondary student teachers on the ground of their academic qualifications. There was no significant difference found in their level of achievement motivation on the ground of their types of institutions and stream.

Key words: Achievement Motivation, Academic Achievement

Teachers are the backbone of society. They have to discharge lots of duties to strengthen society. They are expected to lead and make positive changes in the society, accelerate the process of socialization and provide a knowledgeable, skilled as well as dutiful citizen. Therefore teacher has to take care of it and try to be attentive, content full, disciplined and up-to-date in their job. To cop up with these demands, teachers have to acquire new knowledge, skills, abilities, motivation and specific habits as well as sound character too. Teacher training institutes and teacher educators

have great role to play in this context. There are several factors that positively or negatively affect the teacher training programme. Among those factors achievement motivation towards becoming a best teacher is very important. If prospective teachers will be motivated and supported well to be best teacher by knowledge, skill and willingness then only they could be able to discharge their duties for strengthen society.

Achievement motivation leads an individual to do hard and smart work to be successful in desired field of life. This research was conducted to explore the relationship between achievement motivation and academic achievement of secondary student teachers and to search out if there any difference in the level of achievement motivation of secondary student teachers on the ground of their gender, types of institution and academic streams' differences.

Achievement motivation

David McClelland is a prominent name in this field. Formally he began to explore the field of achievement motivation. He and his associates coined the term achievement motivation in the context of his well recognized theory 'need for achievement' (McClelland, 1961; McClelland & Winter, 1969). This theory explored that under appropriate conditions, people will do what they have been rewarded for doing. One of the key factors which lead one to their goals is the drive. This drive is known as motivation. Motivation to achieve something leads an individual to hard work, persistency and ready to fight for desired goal. In very simple word we can say that achievement motivation is the motivation to achieve excellence in particular work. It represents the desire of an individual for success or the attainment of excellence in particular task.

According to Ahmad (2008, p.9), achievement motivation refers to a desire for significant accomplishment for mastery of things or ideas; for attaining a high standard. Heckhausen (1967, p. 4) defining the meaning of achievement motivation, wrote that it can be defined as the striving to increase or to keep as high as possible, one's own capabilities in all activities in which a standard of excellence is apply and where the execution of such activities can, therefore either succeed or fail. According to McClelland (1987), highly achievement motivated individuals show following characteristics during their activities-

1. Success is more important than material or economical gain.
2. They feel more satisfaction when they achieve their desired goal.
3. Self satisfaction of the success is more important than any medal, praise or rank given by others.

4. They are self motivated to do best.
5. They seek feedback to evaluate their work for improvement.
6. They constantly do hard work for great success.
7. They are practical in nature and they set such type of goals that are attainable and important for their carrier and self satisfaction.
8. They are well planned in their work.

Need for achievement is one of the psychological motives that play an important role in success and achievements of an individual (McClelland & Winter, 1969). Achievement motivation has been defined as the extent to which individuals differ in their need to strive to attain rewards, such as physical satisfaction, praise from others and feelings of personal mastery (McClelland, 1985). People with high achievement motivation try to do better than others, to set a standard of excellence, or to do something unique as well as valuable.

Significance of the study

Achievement motivation is an important construct in teaching learning process. The paradigm of education is going to be gradually changed in 21st century. It is being learner centric education in this century and emphasise is being done not to just create a good student but the endeavour is for making a self motivated lifelong learner. The awareness and training of how to learn, is much important than just providing content related information within the classroom situation. Students have to take self- initiation for their further learning to make them self up-to-date and cop up the demands of the new situations and challenges. In this process lots of capabilities and motivational factors would be required to be a successful lifelong learner. Among these factors achievement motivation is much important. Achievement motivation is being established as a factor that motivates an individual to work hard. Zenzen (2002, 10) observed that students, who hold a high desire of success, work hard to achieve. Elias ; Noordin, and Mahyuddin (2010) found that there was a positive relationship between achievement Motivation and Self-Efficacy as well as adjustment among University Students. Awan; Noureen and Naz (2011) also found that there was a positive relation between achievement motivation and Self-Concept and Achievement in English and Mathematics at Secondary level.

In order to becoming a lifelong learner, the consciousness towards own weakness, tendency to be self motivated towards learning and self-desired initiation to achieve at mastery level is important. But there is a knowledge gap found when researcher wanted to answer the

question about what is the relationship between achievement motivation and academic achievement particularly in the field of teacher education.

The knowledge about the effects of educational qualification and stream's differences of secondary student teachers on the level of their achievement motivation is unexplored. In the same way interactional effect of educational qualification and stream's differences of secondary student teachers on the level of their achievement motivation is unfolded too. Therefore this study was conducted to explore the relationship of achievement motivation and academic achievement of secondary student teachers. To know the differences in the level of achievement motivation on the ground of their educational qualification, type of institution and academic streams are another intention to conduct this study.

Objectives of the study

There were four objectives in this study that are given as follows-

1. To find out the difference in the level of achievement motivation of secondary student teachers on the ground of their educational qualification and types of institutions (Government financed and Self-Financed).
2. To explore the difference in the level of achievement motivation of secondary student teachers on the ground of their academic streams (General, Social Sciences, and Science,).
3. To explore the interactional effect of educational qualification and stream of secondary student teachers on the level of their achievement motivation and academic achievement.
4. To explore the relationship between achievement motivation and academic achievement of secondary student teachers.

Hypotheses of the study

Five null hypotheses were tested in this study To achieve above objectives. They are given as follows-

1. There is no significant difference between obtained mean scores by PG (Post graduate) and UG (Under graduate) secondary student teachers on AMS (Achievement Motivation scale).
2. There is no significant difference between obtained mean scores by GF (Government financed) and SF (Self-financed) secondary student teachers on AMS.
3. There is no significant difference between the obtained mean scores on AMS of secondary student teachers on the ground of their academic streams (Language, Science, and Social Sciences).

4. There is no significant interactional effect of educational qualification and academic streams of secondary student teachers on their achievement motivation and academic achievement.
5. There is no relationship between the scores obtained by secondary student teachers on AMS and in their first year exam of Bachelor of Education (B.Ed.).

Methodology

Present study falls in the domain of descriptive study as it aims to investigate the Achievement motivation and academic achievement of secondary student teachers. Survey method was used to carry out this study.

Population and sample

Second year secondary student teachers of government financed and self-financed teacher training institutions of Ahmadabad and Gandhinagar districts of Gujarat were identified as the population of the study. The sample of the study was randomly selected. Stratified random sampling technique was used to select the sample from the population. There were 175 secondary student teachers from four teachers training institutions (two government financed colleges and two Self-financed college) of Ahmadabad and Gandhinagar district. There were 76 PG and 99 UG secondary student teachers in the sample. There were 97 and 78 respondents from the government financed and self-financed institutions respectively.

Tools

Achievement Motivation Scale (AMS) and first year B.Ed. exam Marks sheets were consider as the tool to collect the data. AMS, constructed and validated by Dadhodhara (2014), was used to know the level of achievement motivation of secondary student teachers. There are 32 items in the AMS. Cronbach Alpha, Gutmann and Mcdonald's reliability were calculated with the help of JASP (Jeffreys's Amazing Statistics Program; a statistical analysis free open source software). The value of reliability is given in table-1.

Table-1: Scale Reliability Statistics

	mean	Sd	McDonald's ω	Cronbach's α	Gutmann's λ_6
Scale	2.803	0.370	0.867	0.852	0.910

Note. Of the observations, 175 were used, 0 were excluded list wise, and 175 were provided.

The values of MacDonald's, Cronbach Alpha and Gutmann's λ_6 reliability values were 0.867 and 0.852 and 0.91 respectively. All three reliability values were showed that AMS was highly reliable to measure secondary student teacher's achievement motivation. To establish the validity of the AMS, content validity and Cliffs' consistency index 'C' of the scale were calculated with the help of NRTBV (Rathod,2001). According to experts' opinions, all items were found fit to measure Secondary student teachers' Achievement motivation. Cliffs' Consistency index 'C', based on graph theory, is a measure of unidimensionality that show the consistency of the measurement (according to Joshi, 2002, p-22). Value of Cliffs' consistency index 'C'(0.42) shows the good unidimensionality of the scale. In this way it can be conclude that a reliable and valid AMS was used to know the level of achievement motivation of participants. Percentage of total marks obtained by secondary student teacher in their B.Ed. first year exam was considered as the academic achievement of participants.

Data Analysis and interpretation of the results

Descriptive and inferential statistical techniques were used to analyze the data. Shapiro-Wilk test and Levene's test for normality of the data and Equality of variance of the data were used respectively to be conformed whether parametric test will be used or not to test the hypotheses for the study. Mean, S.D., t-ratio, F-test and co-efficient of correlation (r) were applied to test the hypotheses of the study. Data analysis was done with the help of JASP.

Data analysis was done in the context of objective. Normality and equality of variances of data were tested to decide whether parametric or non-parametric test will be appropriate for data analysis.

Normality and Equality of variances of data

First of all normality and equality of variances were tested. To test it, null hypotheses (H_0 : Data is normally distributed and H_0 : there is equal variance in the data set) were tested. Shapiro-Wilk test was used for testing data normality and Levene's test was used for the testing of Equality of variances of the data. Detail is given in table-2.

Table-2: Details of Normality and Equality of Variance of the data set

Test of Normality test(Shapiro -Wilk)				
Variable	Level	Value of W	P-value	Significance at 0.01 level
Academic Qualification	PG	0.985	0.516	Not
	UG	0.983	0.228	Not
Types of Institution	GF	0.987	0.435	Not
	SF	0.976	0.149	Not
Test of Equality of variance (Levene's)				
Variable	F value	Df	P-value	Significance at 0.01 level
Academic Qualification	0.051	1	0.822	Not
Types of Institution	0.079	1	0.779	Not

The result of Shapiro-Wilk normality test ($W = 0.985; p = .516 > 0.01$ (PG) and $0.983; P = 0.228 > 0.01$ (UG)) showed that data is normal. In the context of equality of variances, levene's calculated value ($F = 0.003; P = 0.822 > 0.01$) showed that variances of data is equal. Thus it was concluded that parametric test are appropriate to test the hypotheses.

Objective -1: Achievement motivation of secondary student teachers in the context of their academic qualification and types of institutions: To find out the difference between the level of secondary student teacher's achievement motivation on the ground of their academic qualification and types of institutions are the first objective of the study. To serve this purpose Ho-1 and Ho-2 were tested. The details of the calculation are given in table-2.

Table 3: Mean, SD, and t-ratio in reference to academic qualification

Variables	Levels	No. Of respondents	Mean	SD	Std.Error of Mean	t-ratio
Academic Qualification	PG	76	93.66	13.36	1.53	3.49
	UG	99	86.63	13.13	1.32	
Types of institution	GF	97	91.31	13.46	1.37	1.77
	SF	78	87.65	13.69	1.55	

Table -3 shows that there was a significant difference ($t=3.53$; $p<0.01$) found between PG and UG secondary student teachers' level of Achievement motivation. Thus, the null hypothesis-1 was not accepted and it was concluded that PG secondary student teachers ($M=93.66$, $SD= 13.36$) were significantly more inclined towards achievement motivation than UG secondary student teachers ($M=87.65$, $SD=13.69$). This thing can be seen in figure-1 too.

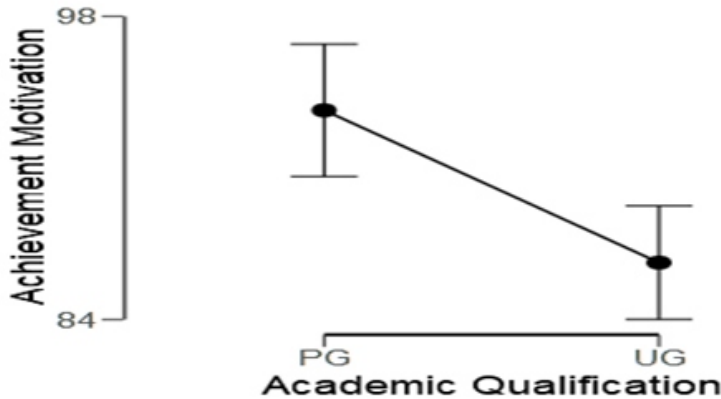


Figure-1 Achievement motivation of PG and UG Secondary student teachers

Table -3 shows that there was no significant difference ($t=1.77$; $p>0.05$) found between Government financed and Self-financed institution's secondary student teachers' Achievement motivation. Thus, the null hypothesis-1 was not rejected and it was concluded that there was no significant difference between the levels of achievement motivation among Government financed and Self-financed institution's secondary student teachers. This thing can be seen in figure-2 too.

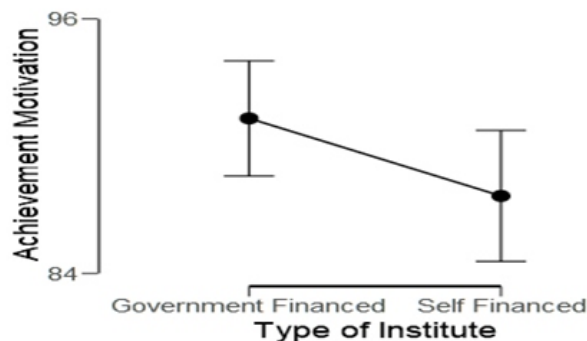


Figure-2: Achievement motivation of GF and SF Secondary student teachers

Objective-2: Achievement motivation of secondary student teachers in the context of their

Stream: To serve this objective null hypotheses-3 was tested. Mean, SD and *F*-ratio were calculated to test the null hypothesis-3 to know the effect of stream, on their achievement motivation of secondary student teachers. To test the equality of Variances of data Levene's test was employed. The value of Levene's test ($F=0.85$; $p>0.05$) showed that data has the equality of variances. Therefore it was decided to apply *F*-test to test the H_0-3 . The details of the descriptive statistics of testing hypotheses-3 are given in table -4.

Table -4: Number, Mean & SD, in reference to streams of participants

Stream	No.	Mean	SD
General	86	90.23	13.13
Science	38	90.26	15.28
Social Science	51	88.31	13.40

The table-4 shows that there were 86, 38 and 51 secondary teachers of General, Science and Social Science stream's respectively in the sample. The mean and SD values of obtained scores on AMS of General, Science and Social Science stream's secondary student teachers were 90.23; 13.13, 90.26;15.28 and 88.31;13.40 respectively. Details about *F* test calculation are given in table-5.

Table-5: Significance of the difference of mean of obtained scores on AMS of different streams' secondary student teachers

Variables	Source of Variance	Sum of squares	Df	Mean squares	<i>F</i> -ratio
Achievement	Between the streams(SSbgs)	134.4	2	67.19	0.358
Motivation	Within the streams (SSwgs)	32275.7	172	187.65	
	Total	32410.08	174		

On the basis of table -3, it was concluded that there was no significant difference ($F=0.358$; $P> 0.05$) found in the level of Achievement motivation of different stream's secondary student teachers. Therefore H_{03} was not rejected and it was concluded that the differences of streams have no significant effect on the level of Achievement motivation of secondary Student teachers. This thing can be seen in figure-3.

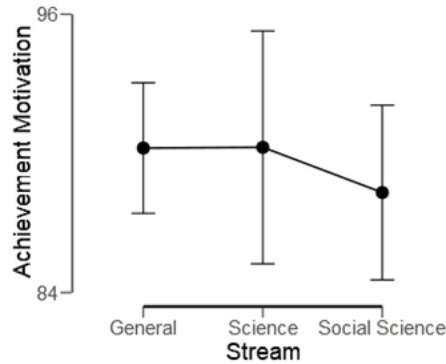


Figure-3 : Mean score of different streams' secondary student teachers on AMS

Objective-3: Interactional effect of academic qualification and streams on achievement motivation

Fourth null hypothesis was tested to know the interactional effect of academic qualification and streams on the level of achievement motivation. To serve this purpose F-test was used. The calculation is given in table-6.

Table-6 Interactional Effect of Academic Qualification and streams on Achievement motivation

Cases	Sum of Squares	df	Mean Square	F	p
Stream	141.27	2	70.63	0.397	0.673
Academic Qualification	1966.95	1	1966.95	11.047	0.001
Stream * Academic Qualification	34.13	2	17.06	0.096	0.909
Residual	30090.85	169	178.05		

Note. Type III Sum of Squares

Table -6 shows that there was no significant interactional effect ($F=0.096$, $P>0.5$) of student teacher's academic qualification and their streams on their level of achievement motivation. This can be seen in figure-4.

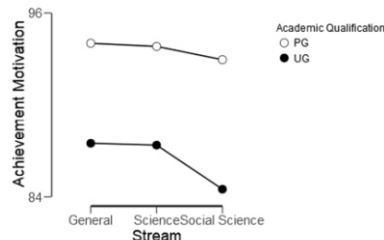


Figure-4: Interactional effect of Stream and Academic Qualification

Objective 3: Relationship between Achievement motivation and Academic achievement

To know the relationship between achievement motivation and academic achievement of secondary student teachers, null hypothesis five was tested. The details of the calculation are given in table-7.

Table-7: Correlation between the obtained scores of secondary teachers on AMS and obtained percentage in B.Ed. Exam

Variables	Numbers of Participants	Mean	SD	Value of Correlation	Remark
Achievement motivation	175	89.68	13.65	0.60	substantial
Academic achievement	175	72.09	5.86		level relationship

Table-7 shows that a positive correlation($r=0.60$) was found between the obtained scores on AMS and B.Ed. Exam's score percentage of secondary student teachers. According to Best & Kahn (2012, p.388) the obtained Pearson 'r' correlation value was showing substantial level of positive relationship between achievement motivation and academic achievement of secondary student teachers. Thus, it was concluded that a substantial level of positive relationship was found between achievement motivation and academic achievement of secondary student teachers. This thing can be seen in given figure -5 too.

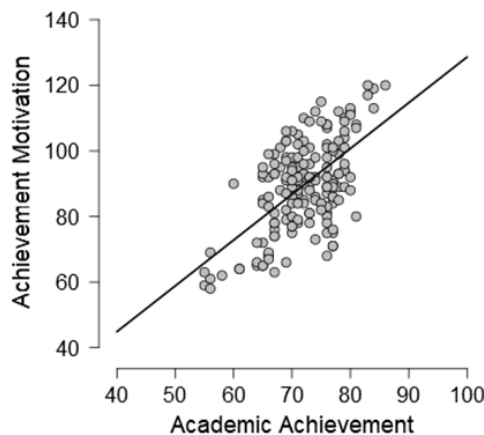


Figure-5: Correlation between Achievement motivation and Academic achievement of secondary student teachers

Findings of the study

1. A significant difference was found in the level of Achievement motivation of secondary student teachers on the ground of their academic qualification. PG secondary student teachers were found having more achievement motivation than simply UG secondary student teachers.
2. Study revealed that there was no significant difference in the level of achievement motivation of secondary student teachers on basis of their types of Institutions.
3. It was revealed that the differences of streams have no significant effect on the level of achievement motivation of secondary student teachers. It was also found that there was no interactional effect found on the level of achievement motivation of secondary student teachers.
4. A substantial level of relationship between achievement motivation and academic achievement of secondary student teachers were found.

Discussion of the study

This study provides knowledge of the effect of academic qualification and associated type of institutions of secondary teachers on their achievement motivation. A significant difference was found between the levels of achievement motivation of secondary teachers in the context of their academic qualifications. Secondary teachers who have learning experience till PG were more inclined towards achievement motivation than the UG secondary teachers. On the basis of their study Xuan et al(2014) indicated that level 4 students hold the highest achievement motivation than lower level of students therefore it can be infer that student's achievement motivation developed thorough studies. Findings of the study will help to teacher educators to make strategies to enhance the level of achievement motivation among under graduate students too.

It was also revealed that there was a substantial level of positive relationship between achievement motivation and academic achievement. It shows the importance of achievement motivation in learning process. This result is also supported with study by Sikhwari, (2014); and Tella (2007), which showed that achievement motivation, has significant and positive impact on academic performance. Sarangi (2015) concluded that there was a significant relationship between Achievement motivation and academic achievement in case of Non-tribal students, girl-students, rural and Urban students. Thus, it is important for all colleges and teacher educators to introduce this concept in their teacher training programme and provide such type of guidance, motivational support and environment in which our prospective teacher can be ready to learn with sense of high level of achievement motivation.

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