RELATIONSHIP BETWEEN MASTERY GOAL ORIENTATION AND TEACHING SELF-EFFICACY OF SECONDARY STUDENT TEACHERS

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ABSTRACT

Mastery goal orientation and Teaching Self-Efficacy are two important constructs that associated with the quality of teaching learning process. This study was conducted to find out the relationship between mastery goal orientation and teaching self-efficacy of secondary student teachers. To find out the effect of gender and stream of secondary student teachers on the level of their Mastery goal orientation was another objective of the study. survey method was used to conduct the study. Total 247 secondary student teachers were randomly selected as the sample of study. The result of the study showed a positive relationship between Mastery goal orientation and Teaching self-efficacy of secondary student teachers.

Key words: Mastery goal orientation, Teaching self-efficacy

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INTRODUCTION

Goal orientation is emerging as the most important motivational construct which influences teaching learning process. Researches show its importance in the context of giving an explanation for the approaches, responses, and reasons that individuals use to engage in achievement activities (Ames, 1992).

Goal orientation theory is based on the assumption that human behavior is purposeful and regulated by his/her goals. Goal-orientation originated in the educational psychology literature in the early 1980s. Goal orientation has been conceptualized as a dispositional personality characteristic (Wikipedia, 2011). Goal orientation refers to the psychological dispositions towards achieving one's objective (Ahmed, 2008). A goal orientation represents the reasons behind a student's effort to achieve. In the concern of learning process, Goal-orientation can be defined as a student's unique characteristics which describe that why and how he/she adopts a goal of a certain learning task and how much he/she eager to accomplish it. There are three types of goal orientation; Mastery, Performance prove and Performance Avoidance Goal Orientation.

Individuals with a performance Prove goal orientation want to be the best, to appear to be the most competent. Persons with performance goal orientation seek positive reinforcement and feedback. Demonstration of ability is the main objective of the student who pursing this approach. Whereas individuals with a Performance Avoidance Goal Orientation try to avoid making mistakes and appear incompetent.

They take the known path, the unchallenging tasks, and are frequently unenthusiastic to show their work to others until it is perfect.

Mastery Goal Orientation

Mastery goal orientation represents attention toward self-determined level of performance. Individuals having Mastery goal orientation focus on improving skills and acquiring new knowledge, and are less concerned with making mistakes. Taking this type of goal orientation, learner shows more persistence towards accomplishing the task. Mastery goal orientation is related with student's internal motivation to achieve new knowledge and skills for self improvement (Brett & Vande Walle, 1999).

Individuals that are highly predisposed towards mastery oriented goals are concerned with increasing their competence and mastering whatever they are dealing with at that time. Science they are focused on learning and mastering certain skills, these individuals are likely to evaluate their performance relative to their own previous achievement, and measure success in term of personal progress. This thought pattern is likely to be associated with personal control over the outcomes of one's efforts. Thus, challenging task becomes an opportunity for growth and learning. Individual with strong Mastery goal orientation see effort as the means to success, and are therefore likely to be persistent when facing obstacles on their way to achievement. They tend to perceive negative feedbacks as valuable information on how to improve and they treat failure as a learning experience, not as assign of insufficient ability (Dweck, 1989; Dweck and Leggett, 1998).

Teaching Self-Efficacy

The concept of Self-Efficacy is emerged on the ground of social cognitive theory of Bandura. Self-efficacy is the belief of an individual towards own capacity to perform or conduct a task. According to Wikipedia (2011), self-efficacy is the belief of an individual towards own ability by which he/she do a specific work.

The high level of Self-efficacy develops strong will power and mastery in required field among individuals. Having well confident towards own ability, an individual takes any task as a challenge and try to accomplish it in an effective manner. Bandura (1994) described that self-efficacy develops internal expression and motivates to accomplish a task with full of interest and not to be hopeless at the time of unsuccessful.

Self-efficacy is associated with the individuals' confidence by which they accomplish their accepted work. Self- efficacy influences the individual's behaviour by influencing their motivation, work pattern, and feelings. A positive correlation of self-efficacy was found with internal motivation and academic achievement of students (choudhary and shahabuddin, 2007). Teaching Self-efficacy is defined in this study as the belief about their own teaching capacity and expertise that are required to complete the given teaching task in effective way.

Significance of the Study

Several researches have been done to understand the relationship between Goal orientation and different constructs associated with teaching-learning process. Related literature showed that Mastery goal orientation is positively correlated with academic achievement, self-regulation strategies, creativity, and metacognitive skills. But, there is a quite silence in Indian context, when we want to answer the question; what is the relationship between Mastery goal orientation and Teaching

Self-efficacy of secondary students teachers of Gujarat. Therefore, this study was conducted to find out the relationship between Mastery goal orientation and Teaching self-efficacy of secondary student teachers. To find out the effect of gender and stream of secondary student teachers on the level of their Mastery goal orientation and Teaching Self-efficacy was another important question, yet to answer. To answer these questions this study was conducted.

Problem of the Study

The problem of the present study was Relationship between Mastery Goal Orientation and Teaching Self-Efficacy of secondary student teachers.

Objectives of the Study

1. To know the level of Mastery goal orientation of secondary student teachers.
2. To know the level of Teaching Self-efficacy of secondary student teachers.
3. To know the effect of gender on the level of Mastery goal orientation and Teaching Self-efficacy of secondary student teachers.
4. To know the effect of academic streams on the level of Mastery goal orientation and Teaching Self-efficacy of secondary student teachers.
5. To know the relationship between Teaching Self-Efficacy and Mastery Goal Orientations of secondary student teachers.

Hypothesis of the Study

1. There will be no significant difference between the obtained mean scores of male and female secondary student teachers on MGO scale.
2. There will be no significant difference between the obtained mean scores of secondary student teachers on MGO scale' on the ground of their Academic streams (General, Science, and Commerce).
3. There will be no significant difference between the obtained mean scores of male and female secondary student teachers on TSE scale.
4. There will be no significant difference between the obtained mean scores of secondary student teachers on TSE scale' on the ground of their Academic streams (General, Science, and Commerce).
5. There will be no relationship between the obtained scores of secondary student teachers on MGO scale and TSE scale.

Methodology of the Study

Survey method was used to carry out the study.

Population of the Study and Sampling Technique

Secondary student teachers of government or government funded B. ED. colleges of Ahmedabad districts were considered as the population of the study.

Sample was selected randomly with the use of Cluster sampling technique. Secondary student teachers of academic year 2014-15 were selected as the sample of the study. Total 247 secondary student teachers were selected in the sample. There were 154 female and 93 male secondary student teachers in the sample. Out of 247secondary student teachers, 179, 55 and 13 secondary student teachers were from general, science and commerce streams respectively.

Tools used in the Study

There were two tools used to collect the data from the sample. Mastery goal orientation (MGO) Scale and Teaching Self-Efficacy (TSE) Scale were used to know the level of Mastery goal orientation and the level of Teaching self-efficacy of secondary student teachers respectively.

1. Mastery Goal Orientation (MGO) Scale.

Mastery Goal orientation (MGO) Scale constructed and validated by Dixit (2012) was used. There were 24(14 positive and 10 negative) items in the MGO scale. Cronback's Alpha and Split-half reliability was calculated with the help of SPSS to know the reliability of the MGO Scale. The values of Cronback's Alpha reliability and Split-half reliability were 0.81 and 0.80 respectively. To establish the validity of the MGO scale, content validity and Cliffs' consistency index 'C' of the scale were calculated. To establish its content validity MGO scale was given to six experts for their opinion. Experts' opinions were showing the content validity of the MGO scale. According to experts' opinions, all items were found fit to measure primary student teachers' Mastery goal orientation. Cliffs' Consistency index 'C' was calculated with the help of NRTBV program developed by Rathod (2001). The value of cliffs' Consistency index's 'C' for MGO scale was 0.60. The value of cliffs' Consistency index 'C' was indicating the good unidimensionality of the scale.

Teaching Self-Efficacy (TSE) Scale.

Teaching Self-Efficacy Scale was used to know the level of Teaching self-efficacy of secondary student teachers. This TES scale was developed and validated by Keraliya (2012). There were 34 items in the scale. Cronback Alpha and Split-half reliability were calculated with the help of SPSS. The values of Cronback Alpha reliability and Split-half reliability were 0.87 and 0.86 respectively. Cliffs' Consistency index 'C' was calculated with the help of NRTBV program developed by Rathod (2001). The value of cliffs' Consistency index's 'C' for Teaching Self-Efficcy scale was 0.30. The value of cliffs' Consistency index 'C' was indicating the good unidimensionality of the scale.

Collection of the data

The researcher visited the randomly selected secondary teacher training institutes to administer the MGO scale and TSE Scales on secondary Student Teachers. The purpose of the study explained to the principals of the institutes and permission was taken for data collection. After explaining the purpose of the study, the secondary student teachers requested to respond on the set of MGO and TSE scales. Sets of the MGO scale and TSE scale were collected after respondents completed responding.

Analysis of the data

Descriptive and inferential statistical techniques were used to analyze the data. Mean, S.D., Skewness and kurtosis were calculated in descriptive statistics. The t-ratio, F-test and Pearson 'r' correlation were used to examine the hypotheses of the study. All calculations were performed with the help of Ms-Excel and SPSS computer programs.

Objective-1

The first objective of the study was to find out the level of Mastery goal orientation of secondary student teachers. To serve this purpose the MGO Scale was administered to the sample. The responses on a four point scale, agree, partially agree, partially disagree and disagree, were scored respectively as 4, 3, 2, and 1. There are 24 items in the scale and the maximum score for each item was four. For each respondent it was possible to score minimum 24 and maximum 96 at the scale. The average score that could be achieved by each respondent at the scale was 43.The details of calculated measures of obtained scores on MGO Sale by secondary student teachers are giren in table - 1.

Table -1 : Statistical details of the scores obtained by secondary students teachers on MGO scale

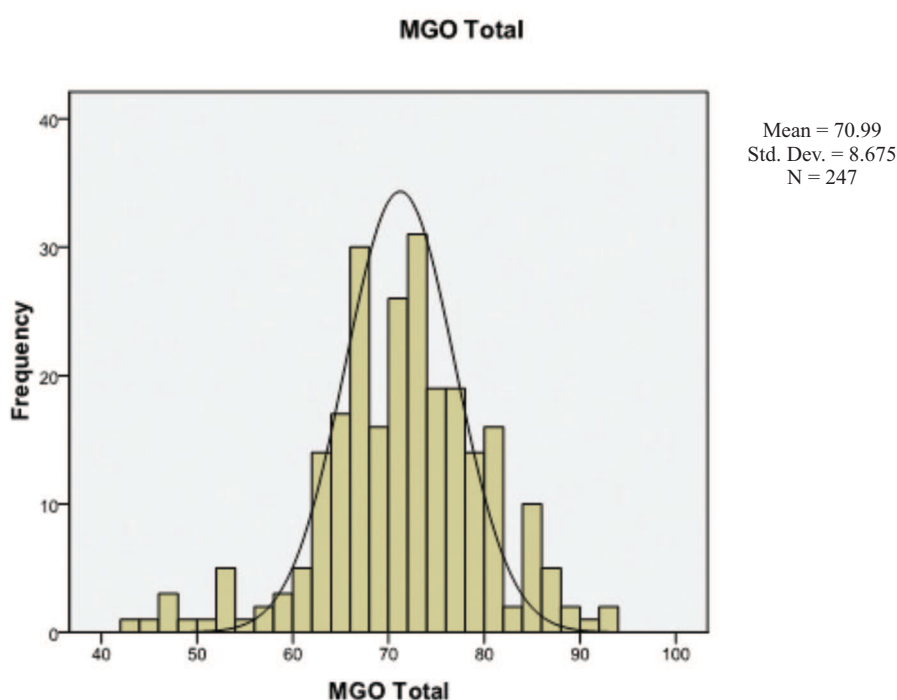| Measure	Value	Measure	Value	Measure	Value
Mean	70.99	S.D.	8.675	Range	50
Median	71.00	Skewness	-.423	Minimum	43
Mode	67	Kurtosis	.890	Maximum	93

Figure-1: Normal distribution of the obtained scores on MGO scale of secondary student-teachers

Table -1 and fuguer-1 shows that the mean value of MGO scores of secondary student teachers was 70.99. The value of skewness(-.423) was showing slightly negative skewness of the data. It means the frequency of high scorer secondary student teachers was more than less score achiever in respect of mean score of the data on MGO Scale. So it concluded that the level of Mastery goal orientation of secondary students teachers was high and above than average score.

Objective-2 : TSE Scale was administered to the sample to serve the second objective of the study. The responses on a four point scale, agree, partially agree, partially disagree and disagree, were scored respectively as 4, 3, 2, and 1. There are 34 items in the scale and the maximum score for each item was four. For each respondent it was possible to score minimum 34 and maximum 136. The average score that could be achieved by each respondent on the scale was 68(50%). The details of the calculated measures of obtained scores on TSE Scale by secondary student teachers are given in table 2.

Table -2 : Statistical details of the scores obtained by secondary students teachers on TSE Scale

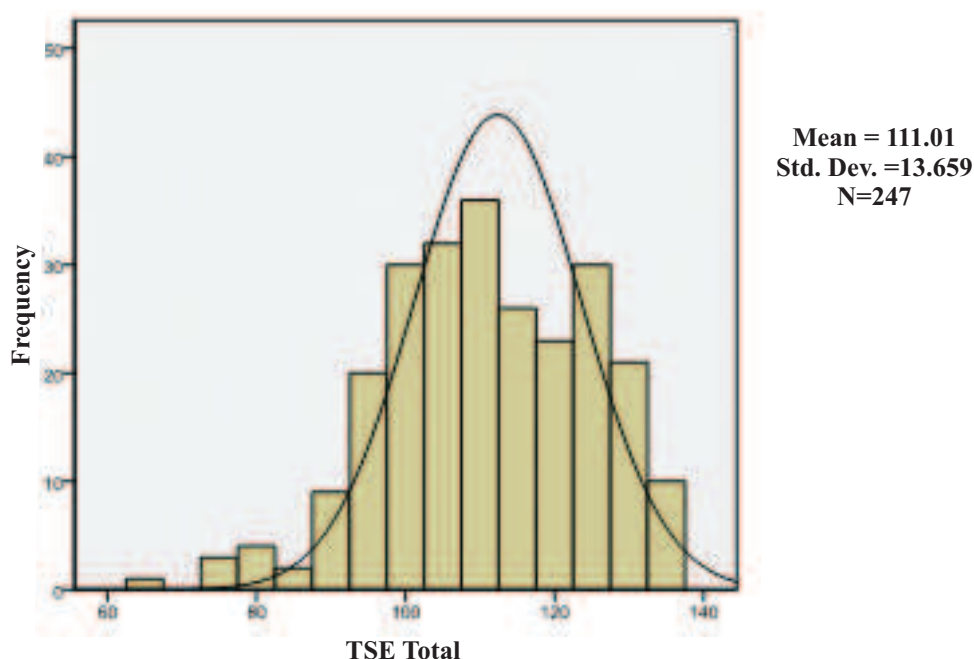| Measure	Value	Measure	Value	Measure	Value
Mean	111.01	S.D.	13.659	Range	71
Median	112.00	Skewness	-.314	Minimum	65
Mode	112	Kurtosis	-.195	Maximum	136

Mean = 111.01
Std. Dev. =13.659
N=247

Figure - 2 : Normal distribution of the obtained scores on TSE scale of secondary student-teachers

Table-2 and figure -2 shows that the range of the obtained scores of secondary student-teachers on TSE scale was 71. The minimum and maximum scores obtained by secondary student-teachers on TSE scale were 65 and 136 respectively. Total 99.6% secondary student-teachers scored above than 50% (68) on the TSE Scale. There were 97% secondary students teachers who obtained more than 60% (81.6) score. In the same way there were 89% secondary student teachers who obtained more than 70% (95.2) scores on TSE scale. 57% secondary student-teachers could achieve more than 80% (108.8) scores and 25% secondary student-teachers obtain more than 90% (122.4) score on TSE Scale. The mean value of TSE scores of secondary student-teachers was 111.01. The value of skewness(-.314) showed slightly negative skewness of the data. It means the frequency of high scorer secondary student-teachers are more than less score achiever in respect of mean score of the data on TSE Scale. So it concluded that the level of Teaching self-efficacy of secondary students teachers was high and fairly above than average score.

Objective - 3 : Null hypotheses 1 and 3 were tested to fulfill the objective-3. The t-test was used to test the null hypotheses 1 and 3. The details of the calculation of the hypotheses are given in table-3.

Table – 3 : Significance of the mean differences of the obtained scores of female and male secondary student teachers on MGO scale and TSE scale

Construct	Gender	Number of Participants	Mean	S.D.	t-ratio	Significance level
Masterygoal	Female	154	72.16	7.82	2.76	Significant
orientation	Male	93	69.04	9.67		at 0.01 level
Teaching	Female	154	113.10	12.58	3.14	Significant
Self-Efficacy	Male	93	107.56	14.71		at 0.01 level

Table-3 shows that there was a significant difference (t=2.76; P < 0.01) in level of Mastery goal orientation of female (M=72.16, S.D.= 7.82) and male(M=69.04, S.D.=9.67) secondary student teachers. So null hypothesis-1 was not accepted and it was found that the female secondary student teachers were significantly more inclined towards Mastery goal orientation than male. Therefore, it was concluded that the gender has a significant effect on the level of Mastery goal orientation of secondary student teachers.

Table-3 shows that there was a significant difference (t= 3.14 P < 0.01) in the level of Teaching self-efficacy of female (M=113.10, S.D.= 12.58) and male(M=107.56, S.D.=14.71) secondary student teachers. So null hypothesis-3 was not accepted and it was found that the female secondary student teachers were significantly more inclined towards Teaching self-efficacy than male. Therefore, it was concluded that the gender has a significant effect on the level of Teaching Self-Efficacy of secondary student teachers.

Objective - 4 : Null hypothesis 2 and 4 were tested to know the effect of academic streams on the level of Mastery goal orientation and

Teaching self-efficacy of secondary student teachers. The details of the calculation of Ho-2 were given in the table-4 and 5.

Table - 4 : The mean and SD of the obtained scores of different streams' secondary student teachers on MGO scale

Academic streams	Number of Secondary student teachers	Mean	SD
General	179	71.41	7.84
Science	55	69.60	10.37
Commerce	13	71.08	11.65

The table - 4 shows that there were 179, 55 and 13 secondary students teachers of general, science and commerce streams' respectively in the sample. The mean values of obtained scores on MGO scale of general, science and commerce streams' secondary student teachers were 71.41, 69.60 and 71.08 respectively. The values of SD of obtained scores on MGO scale of general, science and other streams' secondary student teachers were 7.84, 10.37 and 11.65 respectively. The details of F-test are given in table-5.

Table – 5 : Significance of the difference of mean values of different streams' secondary student teachers' obtained scores on MGO Scale

Source of Variance	Sum of squares	Df	Mean squares	F-ratio	Significance level
Between the streams (SSbgs)	137.61	2	68.81	0.914	not significant at 0.05 level
Within the groups (Sswgs)	18375.35	244	75.31		
Total	18512	256			

On the basis of table -4 and 5, it can be concluded that there was no significant difference (F=0.914; P >0.05) found in level of Mastery goal orientation of General (M=71.41, S.D.= 7.84) Science (M=69.60, S.D.=10.37) and Commerce (M=71.08, S.D.=11.65) stream's secondary student teachers. Therefore Ho-2 was not accepted and it was concluded that the differences of academic streams (General, Science and commerce) have no significant effect on the level of Mastery goal orientation of secondary student teachers.

Null hypothesis-4 was tested to know the effect of academic streams on the level of Teaching self-efficacy of secondary student teachers. The details of the calculation of F-test were given in the table-6 and 7.

Table – 6 : The mean and SD of the obtained scores of different streams' secondary student teachers on TSE scale

Academic streams	Number of Secondary student teachers	Mean	SD
General	179	110.69	13.41
Science	55	112.53	13.51
Commerce	13	109.08	17.94

The table -6 shows that there were 179, 55 and 13 secondary students teachers of general, science and commerce streams' respectively in the sample. The mean values of obtained scores on TSE scale of general, science and commerce streams' secondary student teachers were 110.69, 112.53 and 109.08 respectively. The values of SD of obtained scores on MGO scale of general, science and other streams' secondary student teachers were 13.41, 13.51, and 17.94 respectively. The details of the calculated values of F-test are given in table-7.

Table – 7 : Significance of the difference of mean values of different streams' secondary student teachers' obtained scores on TSE Scale

Source of Variance	Sum of squares	Df	Mean squares	F-ratio	Significance level
Between the streams (SSbgs)	193.85	2	96.93	0.52	not significant at 0.05 level
Within the groups (Sswgs)	45699.11	244	187.29		
Total	45892.96	246			

On the basis of table -7 and 8 it can be concluded that there was no significant difference (F=0.52; P >0.05) found in the level of Teaching Self-Efficacy of General (M=110.69, S.D.=13.41) Science(M=112.53, S.D.=13.51) and Commerce(M=109.08, S.D.=17.94) stream's secondary student teachers. Therefore Ho-4 was not accepted and it was concluded that the differences of academic streams (General, Science and commerce) have no significant effect on the level of Teaching Self-Efficacy of secondary student teachers.

Objective-5 : to know the relationship between Mastery goal orientation and Teaching self-efficacy was the fifth objective of the study. To fulfill this objective Ho-5 was tested. The details of the calculation of hypothesis are given in table-8.

Table – 8 :   Correlation between the obtained scores of secondary student teachers on MGO scale and TSE Scale

Variables	Numbers of Participants	Mean	SD	Value of Correlation	Significance Level
MGO	247	70.99	8.66	0.724	Significant at 0.01 level
TSE	247	111.01	13.66		

Table-8 shows that a positive correlation(r =0.724) was found between the obtained scores on MGO scale and TSE scale 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 Mastery goal orientation and Teaching self-efficacy of secondary student teachers. Thus, it was concluded that a significant substantial level of positive relationship between Mastery goal orientation and Teaching self-efficacy of secondary student teachers was found. This thing can be seen in given figure -3
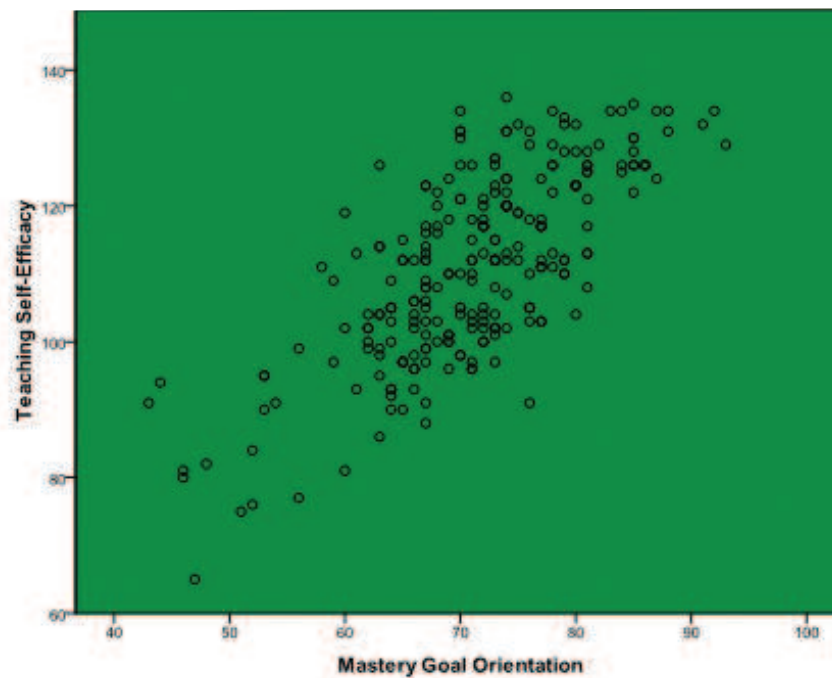
Figure-3 : Relationship between MGO and TSE

Findings of the Study : Following findings were revealed from the study:

1. The level of Mastery goal orientation of secondary students teachers was high and above than average score.

2. The level of Teaching self-efficacy of secondary students teachers was high and fairly above than average score.

3. Female secondary student teachers were significantly more inclined towards Mastery goal orientation and Teaching self-efficacy than male secondary student teachers. Therefore, it was revealed that the gender has a significant effect on the level of Mastery goal orientation and Teaching self-efficacy of secondary student teachers.

4. There was no significant difference found in the level of Mastery goal orientation and Teaching self-efficacy of secondary student teachers on the ground of their academic streams differences.

5. A moderate level of positive relationship was found between Mastery goal orientation and Teaching self-efficacy of secondary student teachers

Educational Implication of the Study

This study provides the new information and a platform to make teaching learning process more meaningful. Previous researches have been showed that both constructs are positively associated with academic achievement and good learning habits (choudhary and shahabuddin, 2007; Dixit,2011; Dweck, 1989; Dweck and Leggett, 1998). So, student teachers should be motivated to be a Mastery oriented learner and emphasis should be given to encourage self-efficacy in teacher training program. Though, the result of the study showed

that secondary student teacher's levels of orientation towards mastery learning and Teaching sell-efficacy are satisfactorily high but there were not a single teacher who could achieve 100% score on MGO scale and there were only 75% secondary student teachers who could achieve more than 90% score on TSE scales. Therefore, Training and orientation programs should be organized for student teachers to achieve 100% awareness, motivation and skill to be competent in Mastery goal orientated learning and to uplift their self-efficacy level in teaching. It is also revealed that female student teachers were found significantly more inclined towards Mastery goal orientation and showing more Teaching self-efficacy than male student teachers. Therefore it is important to pay more attention towards male students teachers and research work should be conducted to find out the causes behind this situation. Revealed moderate level positive relationship between Mastery goal orientation and Teaching self-efficacy indicated that these construct can be predicted by each other. This knowledge will be helpful for a teacher educator to predict their student's Mastery goal orientation and Teaching self-efficacy to organize their teaching activities too.

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