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RESEARCH PAPER

Self-Evaluation Awareness of Prospective Secondary Teachers in relation with their Mastery Goal Orientation and some other variables

* **Dr. Mahesh Narayan Dixit**, Assistant Professor
Faculty of Education (IASE), Gujarat Vidyapith, Ahmedabad
EMAIL: 14maheshndixit@gmail.com

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Abstract

There are several factors that have an effect on education. In these factors Self-evaluation and the Mastery goal orientation of a learner are very important. Self-evaluation can be defined as the process in which an individual evaluates the results of his/her own efforts and obtain results. On the other hand mastery goal orientate is considered as an endeavour in which individual tries to get mastery at the content. These two constructs have great impact to make learning meaningful. This study was conducted to know the relationship between self-evaluation awareness and mastery goal orientation towards learning of prospective secondary teachers. Total 146 prospective secondary teachers were randomly selected as the sample from four educational institutions of Ahmadabad and Gandhinagar districts of Gujarat. Self-Evaluation awareness scale (SEAS) and Mastery goal orientation scale (MGOS) were used as the tools of the study. Results of the study revealed that there was a moderate level of positive relationship between self-evaluation awareness and mastery goal orientation towards learning of prospective secondary teachers. Significant differences in the level of self-evaluation awareness as well as mastery goal orientation towards learning of prospective secondary teachers were found on the ground of their gender and qualification differences.

Introduction

There are several factors that affect education in a positive manner. In these factors evaluation and the goal orientation of a learner are very important. Evaluation has many forms of examinations (written, oral, experimental, project work, e.t.c.) and strategies (summative, formative, external and internal) to assess and make decision about the attainment of decided academic goals. Though evaluation has much potential to ensure the quality of learning process but the over emphasis on external or teacher made examinations, is not much fruitful. Due to this type of evaluation students are being just externally motivated to achieve a good grade and

they focused only on their examination rather than engaging in higher level of learning. This is the utmost time to rethink about an important evaluation process named 'self-evaluation'. Self-evaluation has been found useful in various fields and for various good reasons. It is based on the belief that one can evaluate himself/herself more accurately than other person. Self-evaluation can be defined as the process in which individual itself evaluates the results of its own efforts and obtained results. It aims at the improvement or the modification of these efforts, when necessary (Kellis, et.al. 2010). Self-evaluation is defined as student's judging the quality of their work, based on evidences and exculpate criteria, for the purpose of doing better work in future (Rolheiser& Ross, n.a). Self-evaluation, as the term suggests that in this process students make judgments about their own achievement, learning activities, and decisions about action they need to take for further progress in their learning.

On the other hand mastery goal orientate is also considered as an important factor in teaching learning process. There are three types of goal orientation towards learning, named Mastery, Performance prove and performance avoidance. Mastery goal orientation towards learning represents that kind of learner who is intended to get mastery at the content. They are self motivated and want to learn for self-satisfaction. Mastery goal orientation towards learning can make learning qualitative and meaningful. Learners, who have this goal orientation, always make efforts to learn each and every dimension of given topic and try to be master in their academic field.

Mastery goal orientation towards learning represents attention toward self-determined level of performance. Individuals having mastery goal orientation of learning 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. Individuals that are highly predisposed towards mastery goal orientation are concerned with increasing their competence and mastering whatever they are dealing with at that time. Consequently 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 for

these types of learners. Studies showed that mastery goal orientation is positively associated with self-regulation strategies, Self-efficacy, adaptive learning behaviours, meta-cognition and academic achievement(see, Midleton&Midgley, 1997; Mattern, 2005; and Countinho,2007).

Significant of the study

These two constructs have great impact to make learning meaningful. There are several studies have been done to unfold this field of knowledge. Andreadakis and Xantakou (according to Kellis, et al., 2010) states that self-evaluation can be used as a pedagogical process for developing the students responsibility and self-awareness.

But still there was an unanswered question about the relationship of these two construct with each other. Thus this study was conducted to know the relationship between self-evaluation awareness and mastery goal orientation towards learning of prospective secondary teachers. It was also an unanswered question about the effect of gender and academic qualification on their awareness towards self-evaluation and mastery goal orientation of prospective secondary teachers. Thus, this study was conducted to explore the effect of gender and qualification on the level of self-evaluation awareness and mastery goal orientation towards learning of prospective secondary teachers.

Objectives of the study

1. To find out the relationship between Self-evaluation awareness and mastery goal orientation of prospective secondary teachers.
2. To explore the difference in the level of self-evaluation of prospective secondary teachers on the ground of their gender and academic qualification.
3. To explore the difference in the level of mastery goal orientation of secondary student teachers on the ground of their gender and academic qualification.

Hypothesis of the study

To achieve the objectives of the study there were five hypotheses formed those are given follows -

1. There is no significant correlation between obtained marks of prospective secondary teachers on SEAS (Self-evaluation Awareness Scale) and MGOS (Mastery Goal Orientation Scale).
2. There is no significant difference between obtained mean ranks of male and female Prospective secondary teachers on SEAS.
3. There is no significant difference between obtained mean ranks of Post graduate and under graduate prospective secondary teachers on SEAS.
4. There is no significant difference between obtained mean ranks of male and female prospective secondary teachers on MGOS.
5. There is no significant difference between obtained mean ranks of post graduate and under graduate prospective secondary teachers on MGOS.

Methodology of the Study

Survey method was used to explore the self-evaluation awareness of prospective secondary teachers in relation with their level of mastery goal orientation, gender and academic qualifications.

Population and sampling

Total 146 prospective secondary teachers were randomly selected as the sample from four educational institution (two self-financed and two government financed) of Ahmadabad and Gandhinagar districts of Gujarat. Cluster sampling method was used to select the sample. There were 87 female and 59 male in the sample. Total 64 participants were PG and 82 UG in the sample.

Tools of the study

There were two valid tools used to collect the data. Self-Evaluation Awareness Scale (SEAS), constructed and validated by Dixit (2014) as a part of GCERT Gandhinagar, financed minor research project, was used to explore the level of self-evaluation awareness of participants. To explore the level of mastery goal orientation of learning, MGO a Sub scale of Goal orientation Scale (GOS), constructed and validated by Dixit (2017,p.59) as a part of UGC, New Delhi financed MRP, was used.

Analysis of the data

Analysis of the data was performed in the context of objectives of the study. There were three objectives of the study.

Objective-1: Ho₁ was formed to fulfil the objective 1. Pearson 'r' test was employed to explore the relationship between self-evaluation awareness and mastery goal orientation towards learning of prospective secondary teachers. Details about the test are given in table-1.

Table-1: Correlation between the SEAS and MGOS obtained scores of perspective teachers

Variables	Numbers of Participants	Mean	SD	Value of Correlation	Remark
Self-Evaluation Awareness	146	88.08	12.39	0.697	substantial level relationship
Mastery Goal Orientation	146	87.10	14.06		

Table-1 shows that a significant positive correlation ($r = 0.697$; $p < .01$) was found between the obtained scores on SEAS and MGOS of prospective secondary teachers. According to Best & Kahn (2012, p.388) the obtained Pearson 'r' correlation value was showing substantial level of positive relationship between SER and MGO. Thus, it was concluded that a substantial level of positive relationship was found between Self-evaluation awareness and mastery goal orientation of prospective secondary teachers. This thing can be seen in figure-1 too.

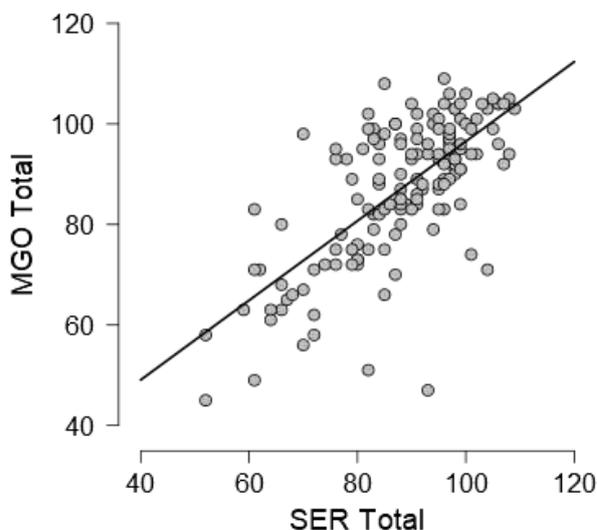


Figure-1: Correlation between SER and MGO of prospective secondary teachers

Objective -2 and 3: To find out the difference between the levels of prospective secondary teacher's SEA and MGO on the ground of their gender and academic qualification are the second and third objectives of the study. To compare groups' scores in the context of SEA and MGO, it was necessary to know the nature of data. For this purpose Shapiro-Wilk and Levene's test were used to know the normality and homogeneity of the data.

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) on the data of SER				
Variable	Level	Value of W	P-value	Significance at 0.05 level
Gender	Female	0.965	0.018	Yes
	Male	0.953	0.024	Yes
Academic Qualification	PG	0.953	0.003	Yes
	UG	0.937	0.024	Yes
Test of Equality of variance (Levene's) of SER				
Variable	F value	Df	P-value	Significance at 0.05 level
Gender	10.16	1	0.002	Yes
Academic Qualification	11.18	1	0.004	Not
Test of Equality of variance (Levene's) of MGO				
Variable	F value	Df	P-value	Significance at 0.05 level
Gender	3.92	1	0.05	Yes
Academic Qualification	3.82	1	0.05	Yes

According to table-2 result of Shapiro-Wilk normality test shows that data related with SEA for Female ($W = 0.955; p = 0.01 < 0.05$) and Male ($W = 0.953; P = 0.028 < 0.05$) participant are not normally distributed. In the same way result of Shapiro-Wilk normality test shows that data related with MGO for Female ($W = 0.953; p = 0.01 <$

0.05) and Male ($W = 0.937$; $p = 0.004 < 0.05$) participant, are also not normally distributed.

According to table-2 result of Shapiro-Wilk normality test shows that data related with SER for PG ($W = 0.932$; $p = 0.002 < 0.05$) and UG ($W = 0.966$; $P = 0.028 < 0.05$) participants is not normally distributed. The result of Shapiro-Wilk normality test showed that data related with MGO for PG ($W = 0.856$; $p = 0.001 < 0.05$) and for UG ($W = 0.971$; $P = 0.05 < 0.05$) participants are not normally distributed too.

According to table-2 in the context of equality of variances of male and female group scores, Levene's calculated value of data related with SEA ($F = 10.16$; $P = 0.002 < 0.05$) and MGO ($F = 11.18$; $P = 0.004 < 0.05$) showed that variances for data related with both variables are not equal. In the context of equality of variances of PG and UG group scores, Levene's calculated value showed that variances of both data related with SEA ($F = 3.92$; $P = 0.05 = / < 0.05$) and MGO ($F = 3.82$; $P = 0.05 = / < 0.05$) are not equal.

Therefore it was revealed that data was neither normally distributed nor homogeneous. Thus, Mann Whitney U test; a non parametric test, was used to compare the obtained scores' mean ranks of different groups.

Objective -2:SEA of prospective secondary teachers in the context of their gender and academic qualification. To serve this purpose Mann Whitney U test was used to test H_{02} and H_{03} . The details of the calculation are given in table-3.

Table 3: SER of prospective secondary student teachers in reference to their gender and academic qualification

Variables	Levels	N	Mean rank	Sum of mean ranks	Mann Whitney U value	Z value	Significance level
Gender	Female	87	80.75	7075	1936.0	2.52	0.001
	Male	59	62.81	3706			
Qualification	PG	64	88.76	5680.50	1647.50	3.85	0.001
	UG	82	61.59	5050.50			

Table-3 shows that Mann Whitney U test was used to compare the mean ranks of male and female SER. Result shows that there was a significant difference (Mann-Whitney U test=1936; Z=2.52, p<0.01) between the female(Mean ranks=80.75) and male(Mean ranks =62.81) Self-evaluation awareness. Thus, Ho2 was not accepted and it was found that female prospective secondary teachers were more aware towards Self-evaluation than male prospective secondary teachers.

Table-3 shows that Mann Whitney U test was used to compare the mean ranks of PG and UG participants SER. Result shows that there was a significant difference (Mann-Whitney U test=1647.50; Z=3.85: p<0.001) between the PG (Mean ranks=88.76) and UG (Mean ranks =61.59) Self-evaluation awareness. Thus, Ho3 was not accepted and it was found that PG prospective secondary teachers were more aware towards Self-evaluation than UG prospective secondary teachers.

Objective-3 : MGO of prospective secondary teachers in the context of their gender and academic qualification: To serve this purpose Mann Whitney U test was used to test the H₀₄ and H₀₅. The details of the calculation are given in table-4.

Table 4: MGO of prospective secondary student teachers in reference to their gender and academic qualification

Variables	Levels	N	Mean rank	Sum of mean ranks	Mann Whitney U value	Z value	Significance level
Gender	Female	87	83.13	7232.0	1729	3.42	0.001
	Male	59	59.31	3499.0			
Qualification	PG	64	88.64	5673	1655	3.82	0.001
	UG	82	61.68	5058			

Table-4 shows that Mann Whitney U test was used to compare the mean ranks of male and female obtained on MGO scale. Result shows that there was a significant difference (Mann-Whitney U test=1729; Z=3.42, p<0.01) between the level of mastery goal orientation of female (Mean ranks=83.13) and male (Mean ranks =59.31) prospective secondary teachers. Thus, Ho4 was not accepted and it was found that female prospective secondary teachers were more ready towards Mastery goal orientation than male prospective secondary teachers.

Table-4 shows that Mann Whitney *U* test was used to compare the mean ranks of PG and UG prospective secondary teachers obtained on MGO scale. Result shows that there was a significant difference (Mann-Whitney *U* test=1655; $Z=3.82$, $p<0.01$) between the level of mastery goal orientation of PG (Mean ranks=88.64) and UG (Mean ranks =61.68) prospective secondary teachers. Thus, H_{05} was not accepted and it was found that PG prospective secondary teachers were more oriented towards Mastery goal than UG prospective secondary teachers.

Conclusion of the Study

A substantial level positive relationship between SEA and MGO was revealed from the study. This knowledge would be valuable for teacher educators as well as for researchers. Teacher educators should be aware of about the relationship between these variables and motivated to use this information to enhance their teacher training process. Tendency towards self-evaluation and mastery goal orientation is positively related with academic achievement too (Dixit,2017). So focus should be given to enhance Self-evaluation Awareness and mastery goal orientation among prospective secondary teachers. Solan (1996) also reviled that teacher should encourage self-evaluation because self-assessment makes the students active participants in their education. Spandel and et.all (1994) found in their study that there was a significant effect of training of self-assessment techniques to improve writing skill among students. Thus it will be fruitful to organize training programmes to make our prospective teacher ready to do their self-evaluation.

Female prospective secondary teachers were found significantly highly ready towards self-evaluation as well as showing high orientation towards mastery learning. Thus, male prospective teachers were needed more attention during enhancement or awareness programmes to enhance Self-evaluation awareness and orientation towards mastery goal of learning. Prospective secondary teachers who have learning experience till PG were more inclined towards SEA and MGO. Therefore it can be inferred that students' SEA and MGO can be developed thorough studies and experience of learning. Findings of the study will help teacher educators to make strategies to enhance the level of achievement motivation among under graduate students too.

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*** Corresponding Author:**

Dr. Mahesh Narayan Dixit, Assistant Professor
Faculty of Education (IASE), Gujarat Vidyapith, Ahmedabad
EMAIL: 14maheshndixit@gmail.com