

A Study of Motivation of Student-Teachers in Relation to their Self-Efficacy

Cerena Caesar Dias

Dr. S. R. Pandya

Teachers play a vital role in their students' life they are the epicenter of any educational system. It is to a great extent, the teachers who decide the shape of student's life. The role teacher has to play today is very diverse and he/she needs to understand his/her contribution towards making a good individual of every student.

Throughout history, societies have recognized the need for education and that each upcoming generation has to be taught not only the skills necessary to be gainfully employed but also how the knowledge will allow them to be functioning members of their society. While this aspect of education has earned consensus throughout the centuries, the role of the teacher in accomplishing this goal has changed considerably and continues to change.

Thus it is the responsibility of a teacher to develop his/her students into respectable citizens of the future world. In order to manage this, the teachers have to be motivated and have good level of self-efficacy, so as to put in optimum efforts in the development of students.

Each individual teacher is different from others and every teacher's performance may also differ from each other, but the question is, what are the factors responsible for the difference in individual performance? This study has concentrated on self-efficacy and motivation which is expected to be a vital determinant of teacher performance.

Concept of Motivation:

Motivation is the driving force by which humans achieve their goals. Motivation is said to be intrinsic or extrinsic. "Motivation can be defined as a process that is initiated by a physiological or psychological deficiency or need, which triggers a specific behavior or drive in order to achieve a goal or incentive." According to various theories, motivation may be rooted in a basic need to minimize physical pain and maximize pleasure, or it may include specific needs such as eating and resting, or a desired object, goal, state of being, ideal, or it may be attributed to less-apparent reasons such as altruism, selfishness, morality, or

* Asst. Professor, St. Teresa's Institute of Education, Santacruz (W), Mumbai.

* Professor, Dept. of Education, University of Mumbai.

avoiding mortality. The researcher has studied motivation using the Vroom's expectancy theory of motivation.

Vroom's Expectancy Theory of Motivation:

It assumes that behavior results from conscious choices among alternatives whose purpose is to maximize pleasure and minimize pain. Together with Edward Lawler and Lyman Porter, Victor Vroom suggested that the relationship between people's behavior at work and their goals was not as simple as was first imagined by other scientists. Vroom realized that an employee's performance is based on individual factors such as personality, skills, knowledge, experience and abilities. The theory suggests that although individuals may have different sets of goals, they can be motivated if they believe that:

- There is a positive correlation between efforts and performance,
- Favorable performance will result in a desirable reward,
- The reward will satisfy an important need,
- The desire to satisfy the need is strong enough to make the effort worthwhile.

The theory is based upon the following beliefs:

Expectancy is the belief that increased effort will lead to increased performance. Theory states that, individuals make decisions, which they believe will lead to reward or reduce the likelihood of pain. The ultimate goal does not matter, the important factor is the impact that achieving the goal will have on the individual.

1. **Instrumentality** is the belief that if you perform well, a valued outcome will be received. Employees will put in more effort if they believe that performing well; will lead to a desired outcome. Performance related initiatives centre on instrumentality. However, it is unlikely that performance related initiatives will be successful, unless employees believe that their pay will increase in line with high performance.
2. **Valence** is the importance that the individual places upon the expected outcome. It measures how much an individual wants the consequences of completing the task. If task completion leads to an outcome desired by the individual, then valence is positive. Examples of positive valence are praise, promotion, recognition and pay rises.

Vroom suggests that an employee's beliefs about Expectancy,

Instrumentality and Valence interact psychologically to create a motivational force such that the employee acts in ways that bring pleasure and avoid pain. The motivational force for a behavior, action or task is a function of Expectancy, Instrumentality and Valence and is a product of these three perceptions.

$$MF = \text{Expectancy} \times \text{Instrumentality} \times \text{Valence}$$

Because the motivational force is the product of the three perceptions, if any one of their values is zero, the whole equation becomes zero. The theory predicts that the individual will choose to perform that activity which has the strongest positive and the weakest negative force.

Concept of Self-Efficacy:

Self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective and selection processes.

Affective Processes: Processes regulating emotional states and elicitation of emotional reactions.

Cognitive Processes: Thinking processes involved in the acquisition, organization and use of information.

Motivation: Activation to action. Level of motivation is reflected in choice of courses of action, and in the intensity and persistence of effort.

Self-Regulation: Exercise of influence over one's own motivation, thought processes, emotional states and patterns of behavior.

A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. They set themselves challenging goals and maintain strong commitment to them. They heighten and sustain their efforts in the face of failure. They quickly recover their sense of efficacy after failures or setbacks. They attribute failure to insufficient effort or deficient knowledge and skills which are acquirable. They approach threatening situations with assurance that they can exercise control over them. Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression.

Need of the Study: Teachers play a vital role in the overall development of the child. Student's performance ultimately depends upon the teacher's performance, which in turn will depend on the fulfillment of the teacher's needs. Hence, it is not only necessary for the teachers to be aware of their performance, but also to make conscious efforts to fulfill their motivational needs. For this purpose, it is also necessary for the teachers to believe in their capabilities to organize and execute the courses of action required to successfully accomplish a particular task. A study on variables motivation and self-efficacy is necessary to give teachers an insight into their characteristics and performance thus making them aware of the prevailing conditions, their response towards them and possible areas to improve. Thus, in the light of above mentioned points and keeping in focus the lacunae that still remain unexplored in the field of the variables of this study; the researcher was impelled to undertake the present study.

Statement of the Problem

'A Study of Motivation of Student-Teachers in relation to their Self-Efficacy.'

Objectives:

1. To ascertain gender differences in the following:
 - (i) Motivation measured in terms of (a) Expectancy, (b) Instrumentality and (c) Valence
 - (ii) Self-Efficacy
2. To ascertain the relationship of motivation measured in terms of (a) Expectancy, (b) Instrumentality and (c) Valence with Self-Efficacy in the case of the following:
 - i. Male student-teachers
 - ii. Female student-teachers
 - iii. Total sample of student-teachers
3. To ascertain gender differences in the relationship between self-efficacy and motivation

Design of the Study:

The present study is a descriptive research of correlational and causal-comparative type. The investigation includes the study of motivation and self-efficacy of student-teachers. It studies existing student-teachers' self-efficacy and motivation; it studies these characteristics after the effect of the circumstances has

already taken place. Hence, the study is of descriptive type. The study verifies gender differences in self-efficacy and motivation. Therefore, the study is of causal comparative type. The study also finds the relationship of motivation and self-efficacy. Thus the correlational study. The study is a quantitative research as it uses quantitative method to describe record, analyze and interpret the conditions that exist. It involves comparisons to discover relationships between the existing variables. It is a synchronic study as the data is collected at one point of time.

Sample: Its Size and Nature:

Since the researcher wanted to study the relationship of self-efficacy of student-teachers with motivation on the basis of their gender, the researcher made use of two-stage sampling technique in order to get a high degree of representation and accuracy of results.

At the first stage, Teacher Education colleges were selected on the basis of their geographical location, using stratified random sampling. The strata selected were North Mumbai, South Mumbai and Central Mumbai. At the second stage, student teachers were selected using incidental sampling. Initially, the data was collected from 604 B.Ed. student-teachers from the Teacher Education colleges affiliated to the University of Mumbai and situated in Greater Mumbai. Of, these 84 forms were discarded as they were found to be incomplete. Thus, the final sample size was 520 student-teachers. The response rate was 86.09%. The sample consisted of 225 student-teachers from private-aided and 295 from private-unaided colleges. There were 46 male and 474 female teachers in the sample.

Tools Used in the Present Study: The researcher has made use of the following tools for data collection:

- 1) Self Efficacy Scale (Woolfolk, A.E. & Hoy, W.K., 1990)
- 2) Motivation Scale (Dias, 2010)

Scope and Delimitations of the Study:

The present study focuses on assessing separately the motivation and self-efficacy of student-teachers of B.Ed. colleges of Mumbai University in relation to gender.

The study also seeks to relate the motivation of the student-teachers of B.Ed. colleges of Mumbai University to their self-efficacy.

The study was confined to student-teachers from B.Ed. colleges affiliated

only to the University of Mumbai. Self-efficacy was studied only in the case of student-teachers and not in case of teachers, principals, students, etc. The study only uses Vroom's Theory of Motivation and no other motivation theories like McClelland's Theory of Needs, Equity Theory, Reinforcement Theory, Goal Setting Theory, Self-Determination Theory etc.

Findings of the study:

1. The first null hypothesis states that there is no significant gender difference in (1) Self-Efficacy and (2) Motivation measured in terms of (a) Expectancy, (b) Instrumentality and (c) Valence

This null hypothesis was tested using the t-test. The following table shows the relevant statistics of Motivation (TM) and Self-Efficacy (SE)

Table 1 : Relevant statistics of TM and SE

Variable	Group	Mean	SED	t	l.o.s	ω^2_{est}
TM	Male Teachers	434.96	21.86	0.37	N.S.	-
	Female Teachers	426.76				
E	Male Teachers	74.54	4.50	3.6	0.01	2.24
	Female Teachers	98.74				
I	Male Teachers	75.26	2.169	3.67	0.01	2.34
	Female Teachers	83.22				
V	Male Teachers	73.2	1.886	0.1696	N.S.	-
	Female Teachers	73.62				
SE	Male Teachers	64	1.176	2.593	0.01	1.088
	Female Teachers	60.95				

- (a) It was found that the t-ratio for gender difference in Motivation of student-teachers is 0.37 which is not significant at 0.05 level for 518 degrees of freedom. Hence the null hypothesis was accepted for total motivation obtained using Vroom's Theory.
- (b) It was found that the t-ratio for gender difference in Expectancy and Instrumentality of student-teachers is 3.6 and 3.67 which are significant at 0.01 level for 518 degrees of freedom. Hence the null hypothesis was rejected.
- (c) It was found that the t-ratio for gender difference in Valence of student-teachers is 0.17 which is not significant at 0.05 level for 518 degrees of freedom. Hence the null hypothesis was accepted.

- (d) The t-ratio for gender difference in Self Efficacy of student-teachers is 2.59 which is significant at 0.01 level. Hence, the null hypothesis was rejected.
2. The second null hypothesis states that there is no significant relationship between self efficacy and motivation measured in terms of (i) Expectancy, (ii) Instrumentality and (iii) Valence in the case of (a) male student-teachers, (b) female student-teachers and (c) total sample of student-teachers. This null hypothesis was tested using the Pearson's coefficient of correlation. The following table shows the relevant statistics for the coefficient of correlation.

Table 2 : Relevant statistics of relationship between TM and SE

Variable	Group	r	l.o.s	100 r ²
TM & SE	Male Teachers	0.5006	0.01	25.06%
	Female Teachers	0.4583	0.01	21%
	Total Sample	0.4467	0.01	19.95%
E & SE	Male Teachers	0.2286	0.01	52.25%
	Female Teachers	0.0136	NS*	-
	Total Sample	0.4565	0.01	20.83%
I & SE	Male Teachers	0.2744	0.01	75.29%
	Female Teachers	0.0168	NS*	-
	Total Sample	0.0158	NS*	-
V & SE	Male Teachers	0.2462	0.01	60.61%
	Female Teachers	0.2199	0.01	48.35%
	Total Sample	0.2159	0.01	46.61%

* NS means the value of r is not significant.

- (a) It was found that the 'r' between Self efficacy and total motivation of male student-teachers is 0.5006; Self efficacy and total motivation of female student-teachers is 0.4583; Self efficacy and total motivation of total sample of student-teachers is 0.4467. These 'r' are all significant at 0.01 level, positive and moderate in magnitude. Hence the null hypothesis is rejected. 25.06% variance in Self efficacy is associated with total motivation of male student-teachers; 21% variance in Self efficacy is associated with total motivation of female student-teachers; 19.95% variance in Self efficacy is associated with total motivation of total sample of student-teachers.

- (b) It was found that the 'r' between Self efficacy and Expectancy is 0.228672; Self efficacy and Instrumentality is 0.274482; Self efficacy and Valence is 0.246253 in case of male student-teachers. These 'r' are all significant at 0.01 level, positive and low in magnitude. Hence the null hypothesis is rejected. 52.25% variance in Self efficacy is associated with Expectancy; 75.29% variance in Self efficacy is associated with Instrumentality; 60.61% variance in Self efficacy is associated with Valence in case of male student-teachers.
- (c) The 'r' between Self efficacy and Expectancy is 0.013625; 'r' between Self efficacy and Instrumentality is 0.016842 in case of female student-teachers. These 'r' are not significant at 0.05 level. Hence the null hypothesis is accepted. 'r' between Self efficacy and Valence is 0.219977 in case of female student-teachers. This 'r' is significant at 0.01 level of significance, positive and low in magnitude. Hence the null hypothesis is rejected. 48.35% variance in Self efficacy is associated with Valence in case of female student-teachers.
- (d) The 'r' between Self efficacy and Expectancy is 0.456548, and Self efficacy and Valence is 0.215916 in case of total sample of student-teachers. These 'r' are all significant at 0.01 level, positive and moderate in magnitude. Hence the null hypothesis is rejected. 20.83% variance in Self efficacy is associated with Expectancy and 46.61% variance in Self efficacy is associated with Valence the 'r' between Self efficacy and Instrumentality is 0.015855. This 'r' is not significant at 0.05 level. Hence the null hypothesis is accepted.
3. The third null hypothesis states that there is no significant gender difference in the relationship of Self efficacy with motivation. This null hypothesis was tested using the Z-test for determining the gender differences in the relationship of Self efficacy with motivation. The following table shows the relevant statistics for the z-test.

Table 3: Relevant statistics of gender difference in the relationship between TM and SE

Variable	Group	r	z-ratio	l.o.s.
TM & SE	Male Teachers	0.5006	0.974	NS
	Female Teachers	0.4583		
E & SE	Male Teachers	0.2286	1.33	NS
	Female Teachers	0.0136		
I & SE	Male Teachers	0.2744	1.719	NS
	Female Teachers	0.0168		
V & SE	Male Teachers	0.2462	0.191	NS
	Female Teachers	0.2199		

- (a) The Critical Ratio for z obtained for the relationship between SE and Motivation of teachers is 0.974, which is below 1.96 and hence is not significant at 0.05 level of significance. Hence the null hypothesis is accepted. There is no significant gender difference in the relationship between SE and Motivation of teachers.
- (b) The Critical Ratio for z obtained for the relationship between SE and Expectancy of teachers is 1.33, which is below 1.96 and hence is not significant at 0.05 level of significance. Hence the null hypothesis is accepted. There is no significant gender difference in the relationship between SE and Expectancy of teachers.
- (c) The Critical Ratio for z obtained for the relationship between SE and Instrumentality of teachers is 1.719, which is below 1.96 and hence is not significant at 0.05 level of significance. Hence the null hypothesis is accepted. There is no significant gender difference in the relationship between SE and Instrumentality of teachers.
- (d) The Critical Ratio for z obtained for the relationship between SE and Valence of teachers is 0.191, which is below 1.96 and hence is not significant at 0.05 level of significance. Hence the null hypothesis is accepted. There is no significant gender difference in the relationship between SE and Valence of teachers.

Discussions:

1. The findings show that there is no significant gender difference in the Motivation. This may be because of low level of competition between males and females. Also both the groups may try to put in their best efforts and are equally motivated to achieve their goals as student-teachers. Since they try to give in their best, motivation does not differ to a great extent.

The findings also show that there is significant gender difference in Expectancy and Instrumentality of student-teachers and the Expectancy and Instrumentality of female student-teachers is higher than that of male student-teachers. This may be because female student-teachers belief that increased efforts will lead to increased performance and better performance will result into attaining the valued outcome may be higher.

It was found that, there is no significant gender difference in Valence of student-teachers. This might be because both the genders give equal importance to the expected outcome and the consequences of the expected outcome.

The findings also show that there is significant gender difference in Self Efficacy of student-teachers and; Self Efficacy of males is higher than that of females. This might be because male student-teachers might have more confidence in their ability to succeed in a task. They might be better able to motivate themselves in the face of challenges than female student-teachers.

2. The significant relationship between self efficacy and total motivation may be because motivation is regulated by the expectation that a given course of behavior will produce certain outcomes and the value of those outcomes. Student-teachers may act on their beliefs about what they can do, as well as on their beliefs about the likely outcomes of performance. Thus motivating influence of outcome expectancies is governed by self-beliefs of efficacy.

There is significant relationship between self efficacy and motivation measured in terms of (a) Expectancy, (b) Instrumentality and (c) Valence in the case of male student-teachers and the variables are positively correlated.

This may be because male student-teachers might have strong belief in their abilities of performing a task well and in increased effort which may lead to increased level of performance thus increasing their expectancy and their self efficacy. Also they put in more effort in performing well so as to receive the

valued outcome, thus increasing their instrumentality and in turn improving their self-efficacy. Also they must be asserting enough importance to the expected outcome, leading to a driving force so strong that valence increases resulting their increase in zest to perform better and thus achieving their goals and in turn improving their belief in their own capacities and thus increasing self-efficacy. Also, males take coaching classes and extra tutoring besides their jobs, thus increasing their income, which enables them to have greater motivation to put in greater efforts to gain the expected outcome.

The findings show that there is no significant relationship between self efficacy and motivation of female student-teachers measured in terms of Expectancy and Instrumentality. This may be because female student-teachers might not have strong belief that their increased effort may lead to increased level of performance also they might be not sure whether increased effort in performing well may give them their desired outcome or they might not have sufficient belief in their capability to perform well in order to receive the desired outcome. Also there is no significant relationship between self efficacy and motivation of female student-teachers measured in terms of Valence. They might be placing enough importance on the expected outcome that could be achieved by increasing their level of performance.

3. The findings of the study show that there is no significant gender difference in the relationship of self efficacy with motivation. This may be because, as the motivational force increases, the self efficacy also increases, and this may be true in case of both genders. Both males and females have belief in their capabilities to perform well and exert extra efforts to improve their performance by motivating themselves so as to reach their desired goals.

Similarly, there is no significant gender difference in the relationship of self efficacy with expectancy, instrumentality and valence. This may be because both the genders might have positive correlation between efforts and performance and believe that favorable performance will result in a desirable reward and the reward will satisfy an important need thus creating a strong sense of efficacy enhancing their accomplishment and personal well-being.

Implications of the Study:

In order to enhance their own Self Efficacy and Motivation, the student-teachers should actively strive in their own development. Some suggestions are made further which will help in the process of development.

1. Vroom's expectancy theory suggests that although individuals may have different sets of goals, they can be motivated. Thus teacher educators should try to consciously motivate student-teachers so as to improve their beliefs about their abilities.
2. Expectancy is the belief that increased effort will lead to increased performance. This belief is affected by factors such as availability of right resources, time, right skills, support etc. The institution can focus on providing the necessary support to enhance the expectancy of their student-teachers.
3. Expectancy can also be improved by student-teachers themselves by increasing effort, making right decisions, upgrading skills etc to increase their own performance.
4. Student-teachers can improve their instrumentality by putting in more effort to perform well; will lead them to the desired outcome.
5. The institution can enhance their student-teacher's instrumentality by providing performance related incentives so that students are motivated to put in greater effort to achieve the outcome.
6. The institution can increase their student-teacher's valence by giving them adequate recognition on completing the task. Thus individuals will place greater importance on completing the task and receiving desirable outcomes and performing better.
7. By enhancing the Expectancy, Instrumentality and Valence of the student-teachers, motivational force can be increased, due to which their belief in their capabilities can be enhanced greatly, resulting in better self-efficacy.
8. Develop and practice innovative methods of teaching, which improves personal skills. The student-teacher should thus use new models and methods of teaching to improve teaching learning process. This will lead to good performance and thus increase teacher's self-efficacy.
9. Arrange different activities for the students in classroom and come well prepared for lessons which will improve her confidence, student's satisfaction with teaching and thus her motivation.
10. The student-teacher should learn different methods to cater to the different needs of her students. This will improve confidence to deal with everyday circumstances and thus improve her self efficacy.

11. Student-teachers should take up various professional development courses, motivate themselves to train in various areas so as to develop personal capabilities and thus improve their sense of efficacy.

REFERENCES

- Baron R.A. '*Psychology*' (2001). (5th Ed.), New Delhi: Printice Hall of India Pvt Ltd.
- Charles C.M, Mertler C.A: (2002) '*Introduction to Educational Research*' (4th Ed), New York: Sage Publications.
- Garret, H.E: (1958) '*Statistics in Psychology and Education*', New York: Longman, Green and Co.
- Gary P. Latham (2007), '*Work motivation: history, theory, research, and practice*', (1st Ed.), New Delhi: Sage Publications India Pvt. Ltd.
- John W. Best & James V. Kahn (2003) '*Research in Education*' (9th Ed), New Delhi: Printice Hall of India Pvt Ltd.
- Koul L., (1988) '*Methodology of Educational Research*' (2nd Ed), New Delhi: Vikas Publishing House Pvt. Ltd.
- Lee Roy Beach, (1996) '*Decision making in the workplace: a unified perspective*', Routledge.
- Mangal S.K. (2003) '*Statistics in Psychology & Education*', (2nd Ed), New Delhi: Printice Hall of India Pvt Ltd.