

Study of Self-efficacy and Optimism of B.Ed. Students

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Abstract: The position of a B. Ed. student is distinct from a regular student. As they are teachers to be, they have to fulfill his/her duties of a student and as well as of a teacher. Self-efficacy and optimism are central constructs in understanding student's motivation and life orientation. This paper finds empirical evidences to the theoretically perceived relation between self-efficacy and optimism. Statistical analyses revealed that there is positive correlation between self-efficacy and optimism. Regression analyses showed significant contribution of optimism in deciding one's self-efficacy. Hence, there should be more positive environment during B.Ed. course to enhance self-efficacy which is further a good contributor in determining achievement of students

Keywords: Self-efficacy, Optimism, B.Ed., Teacher Education, Life orientation

1. Introduction

The destiny of a nation is shaped in the classrooms and teachers act as main pillars of a sound and progressive society. Quality of teachers is the most important and decisive factor influencing student's outcomes in every aspect. Teacher education plays a key role in determining the quality of teachers. Teacher education refers to the policies and procedures designed to equip prospective teachers with the knowledge, attitudes, behaviors and skills they require performing their tasks effectively in the classroom, school and wider community. The purpose of teacher education is to produce efficient teachers as only efficient teachers can influence students and can also make the toughest subject interesting for them. A student of teacher education programme (B.Ed.) is distinct from a regular teacher as she /he has to fulfill her/his duties of being a student and as well as of being a teacher. Fundamentally, the B.Ed. student must consider oneself and behave as a beginning professional. He is expected to act professionally, working with the cooperating teacher, the university supervisor, professional colleagues, and students to strengthen their skills and knowledge as a teacher. How they face challenges, direct their actions, and succeed? This research paper is an empirical insight to find the answer to this question in the concept of self-efficacy and Optimism.

Albert Bandura developed the concept of self-efficacy in his studies of human social cognition theories. [1] defined self-efficacy as "beliefs in one's capabilities to organize

and execute the courses of action required to produce given attainments" (p. 3). He characterized Self-efficacy beliefs as the major mediators for our behaviour, and behavioural change. Over the years, Bandura's other works continued to develop and defend the idea that our beliefs in our abilities powerfully affect our behavior, motivation, and ultimately our success or failure [2,4, 5,6,7]

[7] projected that self-efficacy beliefs are explicitly self-referent in nature and directed toward perceived abilities in given specific tasks, they were powerful predictors of behavior. The research literature has supported this projection. It is evident from research has linked efficacy to a variety of clinical issues such as phobias [3] addiction [8], depression [9, 10], and smoking behaviour [11]. Educationally, self-efficacy beliefs are related to academic performance and self-regulated learning [12, 13, 14, 15]. Also efficacy beliefs related with motivation [16, 17]. Bandura observed that, "People regulate their level and distribution of effort in accordance with the effects they expect their actions to have. As a result, their behaviour is better predicted from their beliefs than from the actual consequences of their actions" ([4], p. 129). From the social cognitive theory perspective, because human agency is mediated by our efficaciousness, self-efficacy beliefs influence our choices, our effort, our persistence when facing adversity, and our emotions.

Researches have shown when outcomes of a performance are contingent with our actions, level of self-efficacy beliefs increases rather than when outcomes are dependent upon events outside our personal control. If self-efficacy only matters for situations with internal control, what happens if external factors are in control? The kind of Beliefs about external factors determined by dispositional optimism. [18] define optimism "as a generalized expectancy that good, as opposed to bad, outcomes will generally occur when confronted with problems across important life domains" and [19] stated that in general, optimism is used to denote a positive attitude or disposition that good things will happen independent of one's ability. [20] proposed a two dimensional view of optimism: people's expectation of positive outcomes can be based on either confidence in one's own efficacy or an expectation of good fortune. Both internally based optimism (e.g. perceived self-efficacy) and externally based optimism (e.g. belief in good luck) may contribute to the expectation of positive outcomes [21, 20, 18]

Optimism affects health and impacts physical well-being, perceived stress, and coping mechanisms [18]. Since dispositional optimism describes the expectations that good things will happen, it is an individual perception of odds. As such, it is closely related to the perception of risk and thus has triggered interest beyond the psychological research community, especially by economists dealing with economic decisions under risk and uncertainty [23, 24].

Self-efficacy beliefs are important within optimism theory, but are conceptualized as an outcome of control beliefs [18]. Self-efficacy focuses on the belief that goals can be achieved, but Optimism focuses on the general positive outcome beliefs. There is an overlap and difference between these constructs which further plays role building a complete life-orientation of an individual.

2. Significance of the study

Role of a B.Ed. student is distinct from a regular student as she /he has to fulfil her/his duties of being a student and as well as of being a teacher. Fundamentally, the B.Ed. Student must consider oneself and behave as a beginning professional. He is expected to act professionally, working with the cooperating teacher, the university supervisor, professional colleagues, and students to strengthen their skills and knowledge as a teacher.

Investigation by [25] revealed that B.Ed. students during their course faces variety of problems viz. coping with the practice teaching, use of statistics, speaking English, meeting submission deadlines, lengthy syllabus, high work load, tension of future job and it has also been reported that students do get badly frustrated. It can be said B.Ed. students have their own set of problems and environment. How they face challenges, direct their actions, perspectives about self and environment and succeed? This research is driven to find self-efficacy levels and life orientation in relation to optimism of B.Ed. Students.

The final verdict about the probability of a successful outcome is based on two types of expectancies: i) self-efficacy beliefs—that is, believing that one will be able to successfully implement all actions under one's control, i.e. perform well, necessary to achieve relevant outcomes, and ii) optimism, that refers to belief in favorable luck for successful outcomes.

Self-efficacy and optimism are central constructs in understanding student motivation, Life orientation. Self-

efficacy focuses on the belief that goals can be achieved, but Optimism focuses on the general positive outcome beliefs. There is a relation between two constructs of self-efficacy and optimism, they should not be confused. Optimism refers to positive thinking i.e. the belief that one will generally experience good outcomes in life. Thus, this concept does not presume that one has to be active to bring about positive events. On the other hand, self-efficacy refers to the notion that one can bring positive results through strong belief in his/her own actions. Because both optimism and self-efficacy concern about positive outcomes, there should be relation between them. This relation needs to be tested on empirical evidences.

However, most research has examined self-efficacy and optimism in isolation from each other, or in relation to other positive psychology constructs viz. hope, locus of control, happiness etc. A study by [26] found positive correlation between Hope, Optimism and Self-efficacy. But the study did not report about correlation of optimism and self-efficacy by partial out the effect of hope construct. [27, 22] reported positive correlation between optimism, hope, self-efficacy, and locus of control. Hence, little is known about how these beliefs function as a system in exclusive relationship to one another and how they contribute in determining level of each other. No reported studies have been found regarding the causal comparison between self-efficacy and optimism among B. Ed. Students.

Hence, the present research has been under taken to find causal comparison of these two constructs viz. self-efficacy and optimism.

3. Objectives

1. To assess the level of self-efficacy of B.Ed. students
2. To assess the level of optimism of B.Ed. students
3. To examine the relation between the self-efficacy and optimism of B.Ed. Students.
4. To study the contribution of optimism in predicting self-efficacy of B.Ed. students

4. Hypotheses

H₀1: There is no significant correlation between self-efficacy and optimism of B.Ed. students.

H₀2: There is no significant contribution of optimism in predicting self-efficacy of B.Ed. students.

5. Methodology

In the present study, according to the nature of objectives of the study descriptive survey method has been adopted.

6. Sample

Random sampling technique was employed to collect sample for the study as it is free of classification error, and it requires minimum advance knowledge of the population other than the frame. Its simplicity also makes it relatively easy to interpret data collected. For these reasons, simple random sampling best suited in present research situation. Sample of the study is 82 students of B.Ed. of GIAST.

7. Tools

Following Scales have been used for the data collection.

1. Self-efficacy was assessed by administering Self-efficacy Scale for B.Ed. Student Teachers by Dhatt, H. K and Tiwari, G.N. (2013). This scale covers all the dimensions of competency areas related to B.Ed. Programme, Viz. Identifying and usage of resources, Understanding instructions in classroom, Self-learning, Leisure-time management and co-curricular activities, Self-assertion/Self-expression, Social self-efficacy, Meeting other’s expectations, coping with Stress, Communication, Decision Making, Evaluation of students’ performance and Community support
2. Optimism was assessed using the Life Orientation Test-Revised (LOT-R; Scheier, Carver, & Bridges, 1994), a 10-item measure consisting of three optimism items (“In uncertain times, I usually expect the best”), three pessimism items (“If something can go wrong for me, it will”) and four filler items. Students rated their response to each item on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). The three pessimism items were negatively worded and thus reverse coded to attain the total scale score. LOT-R scores can range from 6 to 42, with higher scores reflecting greater optimism. The LOT demonstrates moderate reliability, with a reported Cronbach’s alpha Academic Well-Being Multiple Linear Regression Viewpoints, 2009, Vol. 35(2) reliability coefficient of .78, test-retest reliability ranging from .56 to .79 over 28 months, and a reported mean score of 25.1 (Scheier & Carver, 1985; Scheier, Carver, & Bridges, 1994).

8. Procedure of Data collection

Data for the study was collected by administering Self-efficacy Scale for B.Ed. Students by Dhatt H.K. and Tiwari, G. N. (2013) and Revised Life Orientation Scale by Scheier, M. F., Carver C. S. and Bridges, M.W. (1994) to the students of B.Ed. of GIAST. For which prior permission was requested from the administration of the college.

In administering the test, a uniform procedure was adopted. The researchers gave a brief explanation of the objective and scope of the study to the students and appealed for their conscious involvement and co-operation in the process. Appropriate instructions were given to the students beforehand.

9. Statistical Tools

Statistical analyses of the data were undertaken using procedures appropriate for the purpose of the study. The study used the following statistical techniques.

- a) Descriptive statistical techniques: Percentage Analyses, Mean, Standard Deviation, Variation, Standard Error, Confidence Intervals.
- b) For Correlation analysis and association between variables: Pearson’s r.
- c) To evaluate the contribution value: Linear regression analysis.

10. Analyses and Interpretation

In order to provide comprehensive and easy grasp, the collected data is procured to tabular forms this is followed

by analyses and interpreting in a systematic manner. The whole report is in sync with the set objectives of the study.

Objective 1: To Assess the Level of Self-efficacy among B.Ed. Students

Firsly, in order to assess self-efficacy of the selected sample, Self-efficacy scale for B.Ed Student-teachers by Dhatt and Tiwari was employed. Following statistics were applied to analyze the data on the self-efficacy variable viz. Percentage analyses, Mean, Standard deviation, variance, Standard Error, Confidence Intervals for population mean.

Table 1.1: Basic Statistics on Self-efficacy

Self-efficacy		
N	82	$t_{crit}(0.05) = 1.99$ $t_{crit}(0.01) = 2.64$ CI at .95 = 397.8537 ± 12.1304 CI .99 = 397.8537 ± 16.0926 at
Sum	32624	
Mean	397.8537	
Standard Deviation	55.1987	
Variance	3046.8919	
Standard Error	6.0957	

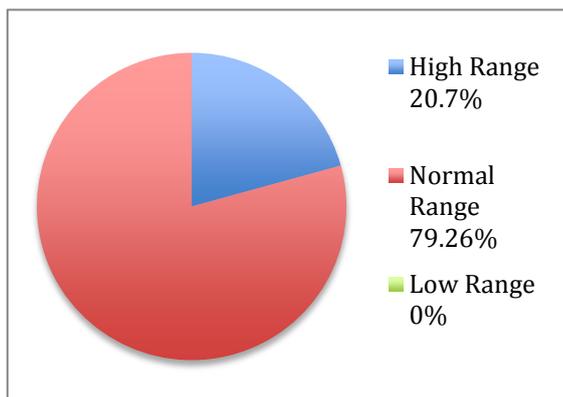
Table 1.1 indicates that the calculated mean of the sample is 397.8537. Standard deviation of sample is 55.1987. Standard error has been found to be 6.4963. The critical value of $t = 1.99$ indicates that 95 per cent of the area of normal curve falls within ± 1.99 standard deviation. Confidence interval of population mean at 0.05 level is 397.8537 ± 12.1304 . It can be asserted that on establishing the confidence interval that the population mean fall within its upper and lower limits. Now it can be said that the probability is 95% that this sample mean (397.8537) will be with in ± 12.9276 units of the population mean. Similarly, critical value of t at 0.01 level i.e. 2.64 indicates that 99 per cent of the area of normal curve falls within ± 2.64 standard deviation. Confidence interval of population mean at 0.01 level is 397.8537 ± 16.0926 . It can be contended on establishing the confidence interval that the population mean fall within its upper and lower limits. Now it can be inferred that there is 99% probability that this sample mean (397.8537) falls within ± 16.0926 units of the population mean.

The data on the variable self-efficacy has also been analysed on percentage form.

Table 1.2 Percentage Analyses of Self-efficacy

	Total SQ (Norms)	No. of student teachers	Total Sample	Per cent age
High Range	436 and above	17	82	20.7%
Normal Range	146-435	65	82	79.26%
Low Range	145 and below	0	82	0%

Fig 1.1 Pie-chart representation of percentage analyses of Self-efficacy



The table 1.2 and figure 1.1 reveals that 17 out of 82 student teachers i.e 20.7% lies under High range of Self-efficacy. A majority of the student teachers i.e. 65 out of 82 student teacher i.e. 79.26% lies under normal range. Whereas 0 out of the 82 sample of student teachers i.e 0% lies under lower range.

Objective 2: To Assess the Level of Optimism among B.Ed. Students

For assessment of optimism of the selected sample, Revised Life Orientation Scale by Scheier, M. F., Carver C. S. and Bridges, M.W. (1994) was employed. Following statistics were applied to analyze the data on the optimism variable viz. Percentage analyses, Mean, Standard deviation, variance, Standard Error, Confidence Interval.

Table 2.1 Basic Statistics on Optimism

Optimism		
N	82	$t_{crit}(0.05)= 1.99$ $t_{crit}(0.01)= 2.63$ CI at .95=14.6341±0.6362 CI at .99=14.6341±0.844
Sum	1200	
Mean	14.6341	
Standard Deviation	2.8953	
Variance	8.383	
Standard Error	0.3197	

Table 2.1 indicates that the calculated mean of the sample is 14.6341. Standard deviation of sample is 2.8953. Standard error has been found to be 0.3197. The critical t-value 1.99 indicates that 95 per cent of the area of normal curve falls within ±1.99 standard deviation. Confidence interval of population mean at 0.05 level is 14.6341±0.6362. it can be asserted that on establishing the confidence interval that the population mean fall within its upper and lower limits.

The critical t-value 2.63 indicates that 99 per cent of the area of normal curve falls within ±2.63 standard deviation. Confidence interval of population mean at 0.01 level is 14.6341±0.844. It can be asserted that on establishing the

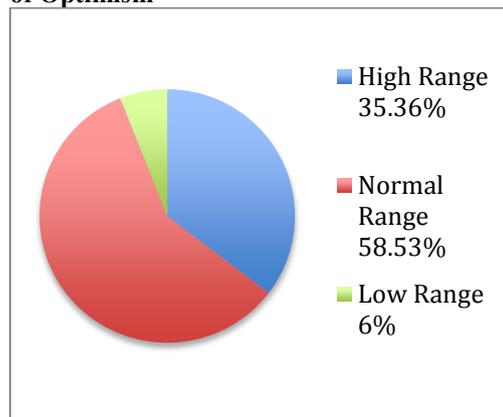
confidence interval that the population mean fall within its upper and lower limits. Now it can be inferred that there is 99% probability that this sample mean (14.6341) falls within ±0.844 units of the population mean.

The data on the variable self-efficacy has also been analyzed on percentage form.

Table 2.2 Percentage Analyses of Optimism

	Total SQ (Norms)	No. of student teachers	Total sample	Per cent age
High Range	15 and Above	29	82	35.36%
Normal Range	9-15	48	82	58.53%
Low Range	9 and Below	5	82	6%

Fig 2.1 Pie-chart representation of percentage analyses of Optimism



The table 2.2 and figure 2.1 reveals that 29 out of 82 student teachers i.e 35.36% lies under High range of Optimism. A majority of the student teachers i.e. 48 out of 82 student teacher i.e. 58.53% lies under normal range. Where as 5 out of the 82 sample of student teachers i.e 6% lies under lower range.

Objective 3: To analyze relationship between self-efficacy and optimism of B. Ed. Student teachers.

In order to fulfill the objective 3 following hypothesis was framed:-

H₀1: There is no significant relationship self-efficacy and optimism of B.Ed. students.

In order determine relationship between the self-efficacy and optimism of B. Ed student teachers, a Pearson’s correlation coefficient and equivalent t-value was calculated.

Table 3.1 Analysis of relationship between self-efficacy and optimism

	Correlation	Equivalent t-value $\frac{r\sqrt{N-2}}{\sqrt{1-r^2}}$
Self-efficacy	0.2277	2.09
Optimism		

df=80	Two tailed p-value (from calculated r)= 0.0397
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t-value at 0.05 level=1.99 and *t*-value at 0.01 level=2.63

Above table 3.1 shows a strong correlation of 0.2277 between the self-efficacy and optimism at p-value of $0.0397 < 0.05$, that is statistically significant. In order to confirm the result, equivalent *t*-value to the obtained correlation coefficient has been calculated which is 2.09 and found to be greater than critical value of *t* at 0.05 level of significance with *df* =80. So, the null hypothesis i.e. There is no significant relationship between self-efficacy and optimism of B.Ed. student teachers, Rejected. So we can conclude that there is a positive correlation between self-efficacy and optimism of B.Ed. student teachers.

Objective 4: To find Contribution value of Variables

To find contribution value of one variable in another, a simple linear regression analysis was employed.

H₀2: There is no significant contribution of optimism in predicting self-efficacy of B.Ed. students. OR in Statistical language **H₀ 2:** $B_1 = 0$

Regression Line Y on X (Y-dependent variable-Self-efficacy) (X-independent variable-optimism)

$Y = \alpha + \beta X$ [α : intercept of Y ; β : Slope of line]

$Y = 334.32758 + 4.34094 X$

Here $\beta = 4.34094$ indicates slope of the regression line. It represents change if Y variable for a unit change in X variable. Hence, unit increase in optimism implies self-efficacy increases by 4.34094 units. So, it can be said that optimism has significant contribution in determining level of self-efficacy

11. Result and Discussion

Following results were emerged from data analyses:-

- i) There is significant correlation between self-efficacy and optimism disposition among B.Ed. Students. A study by Robinson and Snipes (2009) found positive correlation
- ii) between Hope, Optimism and Self-efficacy. But the study did not report about

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- iii) correlation of optimism and self-efficacy by partial out the effect of hope construct. Speir and Frese (1997) and Carifioa and Rhodes (2002) reported positive correlation between optimism, hope, self-efficacy, and locus of control. We can say that although there no study reporting about exclusive relation of self-efficacy and optimism, but multiple correlation of different variable suggests the result of the present study is in sync with the previous study.
- iv) There is significant contribution of optimism in determining self-efficacy of B.Ed. Students. As there is no reported study have been found in contribution analyses of self-efficacy and optimism, So this study reports that optimism plays significant role in determining the level of self-efficacy of B.Ed. students.

12. Conclusion

Self-efficacy and optimism are central constructs in understanding student motivation, Life orientation. However, most research has examined self-efficacy and optimism in isolation from each other, or in relation to other positive psychology constructs viz. hope, locus of control, happiness etc. and little is known about how these beliefs function as a system in relationship to one another and how they contribute in determining level of each other.

The B.Ed. students who are in the educational institutions and who are in the stage of learning might face with numerous responsibilities and challenges. This burden sometimes creates stress to them. But they are required to possess fundamental qualities like optimism and self-efficacy. These qualities provide them superior mental health and make them perform well in their academic pursuit. The optimism and self – efficacy are significant resources for enhancing the learning and quality of student teachers and this makes them succeed in their education. The result of the present study suggests significant correlation and contribution of optimism and self-efficacy. It is essential to create an optimistic social and cognitive environment in institute through various formal and non-formal teaching –learning strategies.

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