



A Study on The Self Efficacy Among Graduate Student Teachers of Kerala

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Abstract

Self-efficacy refers to an individual's belief in their ability to successfully accomplish a specific task or achieve a goal. It is a key concept in psychology, introduced by Albert Bandura, and influences how people think, feel, and behave. High self-efficacy leads to greater motivation, resilience, and willingness to tackle challenges, while low self-efficacy can result in self-doubt and avoidance of difficult tasks. In this paper, the Investigator tries to analyze the level of self efficacy among graduate student teachers of Kerala. The study also highlighted to check whether there is any significant difference in the level of self efficacy among graduate student teachers based on the sub samples Gender and Locale. The findings of the study revealed that the graduate student teachers of Kerala have an average level of self efficacy and also that the self efficacy level doesn't depends on the locale and gender of the total sample. The study suggested that the educational system, curriculum planners and policy makers should take into consideration the implications arising from the study and have to inculcate the elements of self efficacy purposively in the teaching - learning process of teacher education following hidden curriculum plans.

Keywords: - Self efficacy, Graduate student teachers, Teacher education programmes

I. INTRODUCTION

Self-efficacy is a concept introduced by psychologist Albert Bandura as part of his Social Cognitive Theory. It refers to an individual's belief in their capability to perform a specific task or achieve a desired goal. This belief influences how people approach challenges, persist in the face of obstacles, and interpret their successes and failures.

1.1. Core Components of Self-Efficacy

Bandura identified four primary sources that shape self-efficacy:

- **Mastery Experiences:** The most significant source of self-efficacy is successful experiences boost confidence, while repeated failures can diminish it. Example: A student excelling in math after solving challenging problems gains confidence in their abilities.
- **Vicarious Experiences (Modeling):** Observing others successfully complete a task can enhance one's belief in their ability, especially if the observer identifies with the model. Example: Seeing a peer give a successful presentation may inspire confidence in someone preparing for their own.
- **Verbal Persuasion:** Encouragement and constructive feedback from others can strengthen self-efficacy. Example: A teacher's affirmation of a student's writing skills can motivate them to tackle more challenging assignments.
- **Emotional and Physiological States:** Emotional arousal, stress, or anxiety can influence self-efficacy. Positive emotional states can boost confidence, while negative states may weaken it. Example: A calm, focused mind during an exam enhances belief in one's ability to perform well.

(Bandura, 1977) in his seminal work, Bandura explored the concept of self-efficacy as part of social learning theory. He demonstrated that self-efficacy beliefs directly affect learning outcomes, motivation, and behavioral change. (Zimmerman and Schunk, 1989) in their study emphasized the role of self-efficacy in self-regulated learning, showing that students with

higher self-efficacy were more effective in setting goals and monitoring progress. (Luszczynska, Scholz, & Schwarzer ,2005) in their research analyzed self-efficacy's role in health behaviors, concluding that individuals with strong self-efficacy beliefs were more likely to engage in health-promoting activities, such as exercise and healthy eating.

(Pajares ,1996) highlighted the role of self-efficacy in academic performance, finding that it strongly predicts students' motivation and success, particularly in subjects like math and science. (Stajkovic and Luthans,1998) in a meta-analysis examined self-efficacy in organizational settings, showing that employees with high self-efficacy performed better and were more adaptive to workplace challenges.

1.2. Applications of Self-Efficacy:

- Education:- Teachers can build students' self-efficacy by providing positive feedback, modeling successful behaviors, and designing tasks that ensure incremental mastery.
- Health:- Self-efficacy plays a crucial role in adopting healthy behaviors, managing chronic conditions, and recovering from illness.
- Workplace:- High self-efficacy improves employee performance, leadership abilities, and the ability to cope with stress.
- Therapeutic Settings:- Cognitive Behavioral Therapy (CBT) often focuses on improving self-efficacy to help clients overcome anxiety, depression, or phobias.

II.NEED AND SIGNIFICANCE OF THE STUDY

(Xie and Meng Deng,2024) investigated the statistical impact of inclusive education teachers' self-efficacy on their motivation for work. A total of five hundred thirty-four inclusive education teachers from Beijing, China, participated in the research by completing two assessments: the "Teacher Efficacy for Inclusive Practices Scale" and the "Multidimensional Work Motivation Scale." The findings indicated that factors such as age, experience working with students who have special educational needs, training, and the subject taught had a statistical impact on teacher self-efficacy, though they did not affect work motivation. Teacher self-efficacy contributed positively to three out of the four types of work motivation analyzed, with efficacy in applying inclusive strategies, efficacy in collaboration, and efficacy in behavior management showing the most significant predictive influence on introjected regulation, identified regulation, and intrinsic motivation, respectively.

(Jennifer et al., 2023) explored the relationship between mindset and self-efficacy among special education teachers in Texas's Region 2. An examination of how special education teacher mindset relates to self-efficacy was performed. The data were analyzed using the bivariate Spearman Rho method. The findings of this research indicated that there is no significant statistical correlation between mindset and overall self-efficacy, self-efficacy in engaging students, self-efficacy in instructional strategies, and self-efficacy in managing the classroom among special education teachers in Texas's Region 2. Nonetheless, the study also suggested that positive interventions, shifts in mindset, and teacher self-efficacy are linked to enhancements in student learning, as the statistical analysis demonstrates that these variables tend to change in the same direction.

(Weinstein ,2023) aimed to examine the teacher self-efficacy of music student teachers and the origins of that self-efficacy. He distributed a quantitative assessment of teacher self-efficacy and its sources to music student teachers across 22 colleges and universities in the United States. A total of thirty-eight participants completed both surveys. The level of self-efficacy regarding instructional strategies was notably greater than for the other aspects. There were no significant variations in the teacher self-efficacy of music student teachers when categorized by musical subject or the grade level they taught. To enhance teacher self-efficacy among students, music teacher educators and cooperating teachers could provide guided mastery teaching experiences, assist student teachers in managing overwhelming emotions related to their transition into the profession, and offer clear and constructive feedback concerning the teaching abilities of student teachers during their experiences.

(Campbell, 2023) utilized the Culturally Relevant Teacher Self-Efficacy Scale (CRTSE), a 41-item tool that enabled researchers to investigate how teachers' confidence in their abilities to apply culturally relevant methods affects student success in elementary schools across South Carolina. The study focused on a sample of 103 elementary educators in SC. Prior to completing the CRTSE survey, participants responded to three demographic inquiries: their years of teaching experience, the type of degree they possessed, and whether their school was classified as high or low-performing. The outcomes indicated that a majority of teachers exhibited strong self-efficacy in making students feel valued as members of the classroom. Additionally, the results revealed no notable differences in teachers' self-efficacy regarding culturally relevant practices based on their experience, degrees earned, or the performance level of their schools.

(Doreen L and Michelle A, 2021) through a parallel mixed method explored self efficacy and literacy competency among student teachers in residency model. Investigator conducted qualitative interviews with student teachers, teacher educators and supervisors. Quantitative data were also collected using pre test post test survey using teachers' sense of efficacy for literacy scale. The findings of the study showed that residency model student teachers showed higher level of self efficacy for literacy instruction.

In 2014, Yi Hsiang aimed to validate the connections between teachers' self-efficacy and students' learning motivation, learning environment, and learning satisfaction specifically within the context of senior high school physical education (PE). The research utilized a sample of 462 PE teachers and 2,681 students, who were selected through stratified random sampling and cluster sampling from high schools in Taiwan. The tools used for the research included the Teachers' Self-Efficacy Scale, as well as the students' Learning Motivation Scale, Learning Atmosphere Scale, and Learning Satisfaction Scale, all developed by the researchers based on established theories and existing measurement tools. The findings indicated that the self-efficacy of physical education teachers had an impact on students' learning motivation, learning environment, and learning satisfaction; furthermore, it was found that teachers' self-efficacy had an indirect and positive effect on learning satisfaction, with this effect being mediated by learning motivation and learning environment.

From the above mentioned studies, self efficacy has affecting teacher behaviour and student behaviour, learning experiences in the classroom and several other teaching – learning variables. The studies necessitated the need for having a positive self efficacy among younger generation of teachers. The studies encouraged the investigator to find out the self efficacy level of student teachers of Kerala and the possible educational implications arising from the study based on the findings. The investigator hopes that the existing level of self efficacy among graduate student teachers will help the curriculum planners, educational administrators and other stake holders to have a proper reflection about the teacher education programmes also.

III. RESEARCH QUESTIONS

The major research questions formulated for the present study are;

- What will be the level of self efficacy among graduate student teachers of Kerala?
- Is there any significant difference in the self efficacy of graduate student teachers based on sub sample Gender?
- Is there any significant difference in the self efficacy of graduate student teachers based on sub sample Locale?

IV. OBJECTIVES OF THE STUDY

The major objectives arising from the study are as follows;

- To find out the level of self efficacy among graduate student teachers of Kerala
- To find out whether there exists any significant difference in the self efficacy level of graduate student teachers based on sub sample Gender
- To find out whether there exists any significant difference in the self efficacy level of graduate student teachers based on sub sample Locale

V. HYPOTHESES OF THE STUDY

The major hypotheses developed for the present study are;

- There will be significant difference in the level of self efficacy among graduate student teachers of Kerala
- There will be significant difference in the self efficacy among graduate student teachers based on sub sample Gender
- There will be significant difference in the self efficacy among graduate student teachers based on sub sample Locale

VI. METHODOLOGY

Normative survey method was used for the present study (Best and Kahn, 2010). The Investigator used a self efficacy scale based on components Setting Realistic Goals, Positive Reinforcement, Modeling and Demonstration, Constructive Feedback, Encouraging Persistence, Skill Development, Creating a Supportive Environment, Promoting Autonomy, Mindset Shift and Reflection and Goal Adjustment. The investigator collected the responses of graduate student teachers using self efficacy scale prepared and standardized by the Investigator. The response sheets were collected, scored, tabulated and interpreted using descriptive and inferential statistics.

VII. POPULATION AND SAMPLE OF THE STUDY

The populations selected for the present study are graduate student teachers who were doing Bachelor of Education programme under various universities in Kerala. The sample consisted of 300 graduate student teachers from colleges run by Kerala University, Mahatma Gandhi University and University of Calicut using simple random sampling technique. Here samples are selected by giving due weightage to the strata namely Gender and Locale.

VIII. TOOLS USED FOR THE STUDY

The tool used for the present study is self efficacy scale by giving due weightage to 10 components namely Setting Realistic Goals, Positive Reinforcement, Modeling and Demonstration, Constructive Feedback, Encouraging Persistence, Skill Development, Creating a Supportive Environment, Promoting Autonomy, Mindset Shift and Reflection and Goal Adjustment. The standardized scale consisted of 40 items with five point scale. The scale consisted of positive statements. The responses were given score from 1 to 5 for the responses ranging from nothing to outstandingly respectively. Thus the maximum score of the scale is 200 and minimum is 40. The scale established reliability using test – re test reliability test and the reliability coefficient obtained for the whole scale is 0.87. Face validity and content validity were established for ensuring the validity of the scale.

IX. STATISTICAL TECHNIQUES USED FOR THE STUDY

The major statistical techniques used for the present study according to Garrett (2005) are;

- Descriptive Statistics
- Test of significance of difference between means
- Percentage analysis

X. LIMITATIONS AND DELIMITATIONS OF THE STUDY

The major limitations of the present study include nature of the student teachers, time of the study and the environmental factors. The major delimitations are as follows;

- The study was delimited to Ernakulum, Thrissur and Alappuzha districts only
- The study was delimited to graduate student teachers of Kerala, M.G and Calicut universities only
- The study was delimited to subsamples namely Gender and Locale only

XI. ANALYSIS AND DISCUSSION OF RESULTS

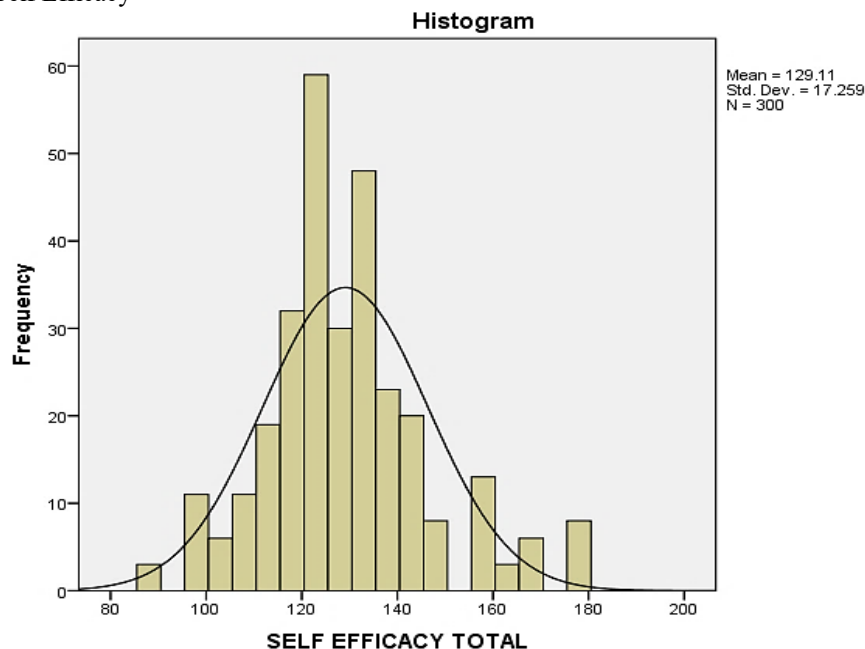
The descriptive statistics for the total sample of graduate student teachers about the level of self efficacy are as shown below.

Table 1. Descriptive statistics for the total scores on level of graduate student teachers about Self Efficacy

| Item | Mean | Median | SD | Skewness | Kurtosis |
|--|--------|--------|------|----------|----------|
| Level of graduate student teachers about Self Efficacy | 129.11 | 128.0 | 17.3 | 0.663 | 1.06 |

From Table 1., it was found that the mean and median values are almost the same. The standard deviation value also shows that the distribution is not much deviated from the normal. The skewness value was found positive indicating that low scores are massed on the upper side of the distribution. That is the population contains more of lower scores. Kurtosis value was greater than 0.263. Hence the distribution is platykurtic in nature.

Fig.1: Histogram for the total scores on level of graduate student teachers about Self Efficacy



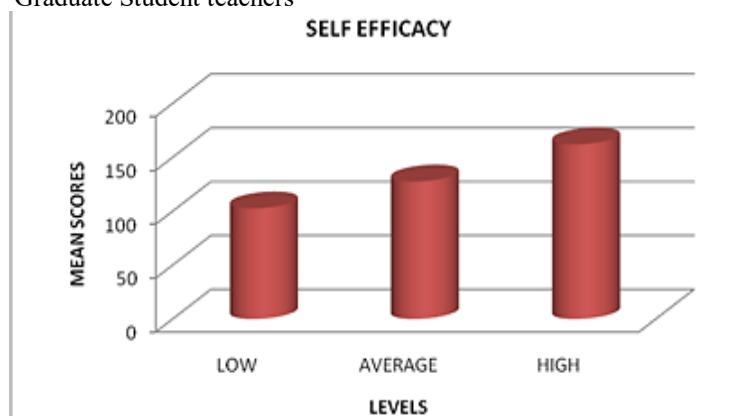
The percentage analysis of the scores on level of graduate student teachers about Self Efficacy is as shown in Table 2.

Table 2. Level of Secondary school teachers on the Total scores on perception about the elements of code of professional ethics in Bhagavad Gita

| Item | Low Level | Average Level | High Level |
|-------------------------|-----------|---------------|------------|
| No. of student teachers | 35 | 227 | 38 |
| Percentage | 11.67 | 75.66 | 12.67 |

From Table 2, it is clear that majority of the graduate student teachers have an average level of self efficacy. The difference in the level of graduate student teachers on self efficacy is represented as shown in Fig. 2.

Fig. 2: Comparison of different levels of Self Efficacy among Graduate Student teachers



Hence from Table 1., Table 2. and from Figures, Fig.1 and Fig.2, it was evident that the graduate student teachers have an average level of self efficacy. Thus it was inferred that there was significant difference in the level of self efficacy among graduate student teachers of Kerala and that most of the graduate student teachers have an average level of self efficacy.

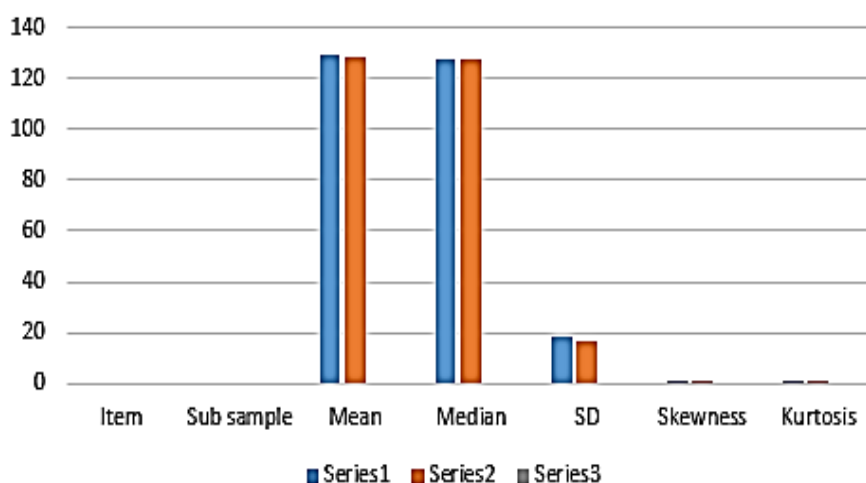
The descriptive statistics for the total scores on self efficacy among Graduate Student teachers for sub sample Gender are as shown in Table 3.

Table 3. Descriptive statistics for the total scores of Self Efficacy of Graduate student teachers for the Sub sample – Gender

| Item | Sub sample | Mean | Median | SD | Skewness | Kurtosis |
|--|------------|--------|--------|-------|----------|----------|
| Self Efficacy of Graduate student teachers for the Sub sample – Gender | Male | 129.45 | 127.50 | 18.11 | 0.613 | 0.701 |
| | Female | 128.95 | 128.0 | 16.86 | 0.694 | 1.33 |

From Table 3., it is clear that the mean and median values of Male and Female graduate student teachers are almost the same. The standard deviation values also show that the distribution is not much deviated from normality. The skewness values of Male and Female graduate student teachers are positively skewed. This means that scores are massed at the lower end of the scale. The kurtosis value is greater than 0.263 for Male and Female graduate student teachers and hence these distributions are platykurtic in nature.

Fig..3: Descriptive statistics for the total scores of Self Efficacy of Graduate student teachers for the sub sample - Gender



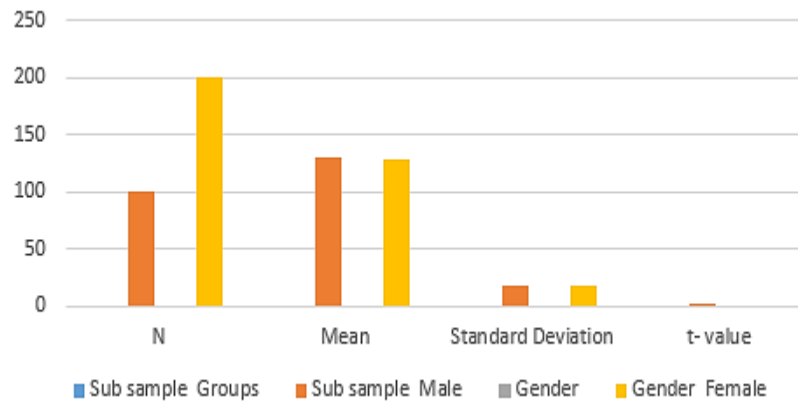
The mean scores of Male and Female graduate student teachers on self efficacy were compared using significance of difference between means. The results were summarized as shown in Table 4.

Table 4. Comparison of Mean Scores of Graduate student teachers on level of Self Efficacy for the Sub sample for the Sub sample – Gender

| Sub sample | Groups | N | Mean | Standard Deviation | t- value |
|------------|--------|-----|--------|--------------------|----------|
| Gender | Male | 100 | 129.45 | 18.11 | 0.239 |
| | Female | 200 | 128.95 | 16.86 | |

From Table, 4, it was found that the t – value obtained is not significant at .01 level indicating that there is no significant difference between the mean scores of Male and Female graduate student teachers on Self Efficacy. Hence Hypothesis II is rejected.

Fig. 4: Comparison of Mean Scores of Graduate student teachers on level of Self Efficacy for the sub sample -Gender



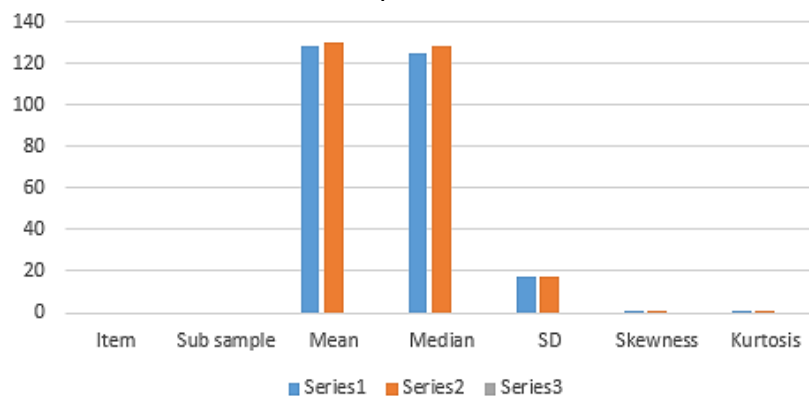
The descriptive statistics for the total scores on self efficacy among Graduate Student teachers for sub sample Locale are as shown in Table 5.

Table 5. Descriptive statistics for the total scores of Self Efficacy of Graduate student teachers for the Sub sample – Locale

| Item | Sub sample | Mean | Median | SD | Skewness | Kurtosis |
|--|------------|--------|--------|-------|----------|----------|
| Self Efficacy of Graduate student teachers for the Sub sample – Locale | Rural | 128.3 | 125.0 | 17.4 | 0.734 | 0.864 |
| | Urban | 129.74 | 128.0 | 17.21 | 0.619 | 1.31 |

From Table 5, it is clear that the mean and median values of Rural and Urban graduate student teachers are almost the same. The standard deviation values also show that the distribution is not much deviated from normality. The skewness values of Rural and Urban graduate student teachers are positively skewed. This means that scores are massed at the lower end of the scale. The kurtosis value is greater than 0.263 for Rural and Urban graduate student teachers and hence these distributions are leptokurtic in nature.

Fig 5: Descriptive statistics for the total scores of self Efficacy of Graduate student teachers for the Sub sample - Locale



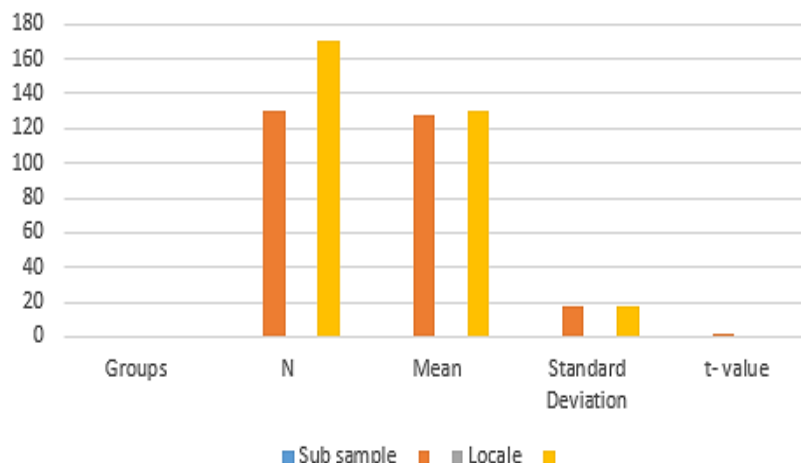
The mean scores of Rural and Urban graduate student teachers on Self Efficacy were compared using significance of difference between means. The results were summarized as shown in Table 6.

Table 6. Comparison of Mean Scores of Graduate student teachers on level of Self Efficacy for the Sub sample – Locale

| Sub sample | Groups | N | Mean | Standard Deviation | t- value |
|------------|--------|-----|--------|--------------------|----------|
| Locale | Rural | 130 | 128.3 | 17.4 | 0.72 |
| | Urban | 170 | 129.74 | 17.21 | |

From Table 6., it was found that the t – value obtained is not significant at .01 level indicating that there is no significant difference between the mean scores of Rural and Urban graduate student teachers on Self Efficacy. Hence Hypothesis III is rejected.

Fig. 6: Comparison of Mean scores of Graduate student teachers on level of self Efficacy for the sub sample- Locale



XII. MAJOR FINDINGS OF THE STUDY

- There is significant difference in the levels Graduate student teachers regarding Self Efficacy
- Graduate student teachers have mostly an average level of Self Efficacy
- There is no significant difference in the Self Efficacy of Graduate student teachers based on sub sample Gender
- There is no significant difference in the Self Efficacy of Graduate student teachers based on sub sample Locale

The findings of the present study are in congruent with study conducted by (Xie & Meng Deng, 2024),(Jennifer et al. 2023), (Weinstein ,2023), (Campbell ,2023) and (Doreen L & Michelle A ,2021) which all necessitated the need for having a positive self efficacy among younger generation of teachers and all these studies encouraged the investigator to find out the self efficacy level of student teachers of Kerala. So from the findings of the present study, it was again confirmed that the graduate student teachers should have to develop appropriate self efficacy skills.

XIII. EDUCATIONAL IMPLICATIONS OF THE STUDY

- The teacher education curriculum should strictly include the elements of Self Efficacy for strongly predicting students' motivation and success
- Training programs should focus on enhancing specific teaching competencies to boost self-efficacy. Workshops on classroom management, effective teaching strategies, and student engagement techniques can help graduate student teachers build confidence and improve their teaching performance
- Establishing mentorship programs where experienced educators guide graduate student teachers can provide the support they need to address challenges. Regular feedback and peer collaboration can foster a positive teaching environment, helping them gradually build a stronger sense of self-efficacy

XIV.CONCLUSION

Self-efficacy is crucial for graduate student teachers as it directly impacts their confidence, motivation, and effectiveness in the classroom. A strong sense of self-efficacy enables them to tackle challenges, implement innovative teaching strategies, and foster a positive learning environment for their students. It also encourages persistence in the face of difficulties, helping them adapt and grow professionally. High self-efficacy not only enhances their teaching performance but also influences students' academic success and engagement, making it a foundational attribute for aspiring educators.

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