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ASSESSING EFFICACY AMONG TEACHERS IN UNIVERSITIES OF JAMMU & KASHMIR: A COMPREHENSIVE STUDY ACROSS DEMOGRAPHIC VARIABLES

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Abstract
This study aimed to investigate the prominence of role efficacy (effectiveness) among teachers in Universities of Jammu & Kashmir, considering various demographic factors. This research contributes valuable insights for universities aiming to enhance the role efficacy of their teaching staff in diverse academic settings. The objectives included assessing role efficacy across gender, designation, qualification, teaching experience, involvement in other assignments and the educational institute. Data was collected from 360 teachers across nine universities using a well-designed questionnaire, supplemented by secondary data from various sources. Findings revealed subtle gender differences, while Professors exhibit significantly higher efficacy than Associate Professors. MPhil/PhD-qualified teachers report greater effectiveness. Teaching experience positively correlates with efficacy, and additional assignments, particularly HOD roles, impact effectiveness. SKUAST Kashmir teachers report higher efficacy than Shri Mata Vaishno Devi University.

Keywords: Role Efficacy, Designation, Teaching Experience, Qualification, Higher Educational Institutes of J&K

1. INTRODUCTION

Education is a potent tool that offers in-depth knowledge, improved environmental acclimation, better capabilities and the development of specific proficiency. Every society's standard of living is based on the caliber of its education system which in turn depends on the competency, morality and professionalism of its teachers. A person's overall persona is developed through education which is a lifelong process of applying knowledge, learning skills, embedding beliefs and more. This in turn depends on the degree of appropriate skills required to provide effective service and support to the all-around development of the next generation.

With the rise of a knowledge-based society in which education for all is acknowledged as the nation's motto, significant efforts must be made to broaden the vision of teacher education, make it relevant and useful. As a result, in order to deliver excellent education at all levels of learning, there is a need for suitably certified and competent teaching experts. Professional ethics, self-evaluation procedures and a positive attitude toward the teaching profession are requirements of education professionals. The quality of ongoing teacher education programme determines the level of quality assurance i.e., a critical component of the education system. Modern teacher's role and responsibilities have evolved. To maintain the core and most valued position in the area of education, the teacher must update information, acquire values, develop higher order thinking abilities, accept and implement novel instructional methodologies in a multi-dimensional teaching-learning process. Future instructors must address future students in a meaningful and successful manner, which may be feasible only if the teacher uses technology that is accessible to meet the needs of the current generation. In the field of educational development, there has to be a balance between "Quality" and "Quantity". There are now undoubtedly new implications and expectations for the role and function of teachers as a result of the emphasis shifting from quantity to quality. The teacher must have a willingness to learn, be adaptable, and grow to his or her peak potential in order to be successful in this profession. Good and capable teachers are essential for effective teaching. Everyone will value teachers who have a thorough understanding of their topic are kind and patient with their students and who interact with them with warmth, excitement and concern. The performance of a person working in an organization depends on his own potential effectiveness, technical competence, managerial experience as well as the design of the role that he performs in the organization. It is the integration of the two that ensures a person's effectiveness in the organization. Unless a person has the requisite knowledge, technical competence and the skills required for the role, he cannot be effective. If the role does not allow the person to use his competence and if he constantly feels frustrated in the role, his effectiveness is likely to be low. The integration of a person and the role comes about when the role is able to fulfill the needs of the individual and when the individual in turn is able to contribute to the evolution of the role. The more we move from role taking to role making, the more the role is likely to be effective.

1.1 Teacher's Efficacy

Teacher efficacy refers to a teacher's view that he or she can favorably influence students and their performance. Belief in a teacher's capacity to enhance student learning. An assessment of his or her ability to achieve the intended goals of student engagement and learning, especially among tough or demotivated students (Bandura, 1977).

Teacher efficacy is a type of self-efficacy that has been shown to be a strong predictor of teaching performance. Teachers must feel competent and secure in their capacity to educate and reach all students, therefore their feeling of effectiveness is critical. In education, self-efficacy has emerged as an essential paradigm for predicting and explaining the perceptions and judgments that drive teacher's decisions and behaviors in the classroom. Teacher efficacy, according to (Wyatt 2014),

is teacher's view in their skills to enhance learning in numerous task and context-specific, cognitive, metacognitive, emotional and social ways.

Teacher Self-Efficacy is an important application of (Bandura's 1977) social cognitive theory to educational settings. It is an important factor and vital variable in educational research (Woolfolk and Hoy, 1990). Teacher self-efficacy is an important construct related to performance of teachers. First emerged in the study of (Patricia Ashton 1946) expanded in 1984. The concept of efficacy now include the extent to which teachers feel confident they are capable of bringing about learning outcomes. According to (Bandura 1977) if a person is having the knowledge and skills required to act it does not give surety that actor will perform effectively but rather it also depends upon the personal judgment for properly utilizing such knowledge and skills to perform an act successfully under various circumstances (Soto,1997). Bandura (1977) named this judgement of knowledge and skills as perceived self-efficacy and when it is applied to educational settings it is referred to as teacher self-efficacy. Bandura defined teacher self-efficacy as the degree to which teacher believe that they have the capability to affect student's performance. In simple words it is teacher's perception of their capabilities rather than real/ actualized capabilities since beliefs and perceptions greatly influence how one's potential is realized and utilized. It is teacher's judgement of his/her ability or competence to perform a task, reach a goal or overcome an obstacle. It affects every area of teacher endeavor. Teacher with strong sense of efficacy are more likely to challenge themselves with difficult tasks and are to be intrinsically motivated. Such teachers put forth a high degree of efforts in order to meet their commitments, attribute failure to things which are in their control rather than blaming external factors. Self-efficacious teachers also recover quickly from setbacks and ultimately are likely to achieve their personal goals. On the other hand, teachers with low self-efficacy believe that they cannot be successful and are less likely to make a concerted, extended effort and consider a challenging task as threat that is to be avoided. They have low level of aspiration as well which may result in disappointing performance. They believe that they can solve problems through time and effort as compared to teachers with low level of self-efficacy. They are typically overwhelmed with discipline issues and resort to punitive methods of classroom management. Teacher self-efficacy is considered as a future oriented motivational construct that reflects teacher's competence beliefs for teaching tasks. Briefly, teacher self-efficacy is teacher's belief in their teaching abilities that they can effectively perform the professional tasks such as helping students to learn. It determines behavior and behavioral changes of teachers and also influences thoughts, feelings, attitude and effort dedicated to teaching. Guskey and Passaro (1994) defined "teacher self-efficacy as the teacher's belief or conviction that they can influence how well students learn even those who may be considered difficult or unmotivated". Moran, Hoy and Hoy (1998) defined teacher efficacy as "the teacher's beliefs in his or her capability organize and execute action required to successfully accomplishing a specific task in particular context". Hoy (2000) stated that "teacher efficacy is the confidence in their ability to promote student's learning". Tschannen and Hoy (2001) clarified that "teacher efficacy is the teacher's perceptions of their resources and strategies for bringing about student behavioral and instructional outcomes". Tschannen Moran and Hoy (2001) defined teacher self-efficacy as "teacher's judgement of his or

her capabilities to bring out desired outcomes of student engagement and learning even among those pupils who may be hard or unmotivated". Pintrich and Schunk (2002) mentioned that "teacher self-efficacy is personal beliefs about one's capabilities to help students learn". Sutton and Wheatley (2003) described that teacher self-efficacy is "teacher's judgement of his or her capabilities to bring about desired outcomes of student engagement and learning even among those who may be difficult or unmotivated".

Shaughnessy (2004) stated that "teacher's self-efficacy is teacher's perceptions about their own capabilities to foster student learning and engagement. It has proved to be an important teacher characteristics often correlated with positive student and teacher outcomes". Bogler and Somech (2004) stated that "teacher's self-efficacy is the belief in one's ability and confidence to teach and the conviction that all students can learn". Wheatley (2005) defined teacher efficacy as "teacher's beliefs in their ability to actualize the desired outcomes". Skaalvik and Skaalvik (2008) defined that "teacher self-efficacy is teacher's ability to plan, organize and carryout activities required to attain instructional goals". Chan (2008) stated that "teacher self-efficacy is the teacher's capacity which influences teacher professional behavior and teacher activities". Woolfolk Hoy and Hoy (2009) defined teacher self-efficacy as " a teacher's belief that he or she can reach even difficult students to help them learn, it appears to be one of the few personal characteristics of teachers that is correlated with student achievement". Guo, Justice, Sawyer and Tompkins (2011) stated that "teacher efficacy is teacher's belief that they can bring about desirable changes in student's behavior and achievement". Himabindu (2012) teacher efficacy is defined as "a product of the interaction between certain teacher characteristics and the teaching learning situations". Kumar (2013) mentioned that "teacher self-efficacy is teacher's perceptions that they have the skills and ability to help students learn are competent in building effective programs for students and can affect changes in student learning". Rawat (2013) defined teacher's self-efficacy as "the level of confidence that teacher has for influencing student's functioning and achievements". Patel (2014) mentioned that "teacher's self-efficacy is teacher's judgements about their abilities to promote student's learning". Muhangi (2017) defined that "teacher's self-efficacy is the teacher's perception of teachers that they can effectively perform the professional tasks such as helping students to learn".

Role efficacy is the potential effectiveness of a role (Pestonjee & Shweta, 2000). Role efficacy has several aspects (Pareek, 2003). These aspects can be classified into three groups or dimensions.

1.2 Dimensions of Role Efficacy

1. **Role Making:**

   It consists of the following four aspects:

   a. **Integration:** Every person has his strengths, experience, technical training, special skills, and some unique contribution that he may be able to make. The more the role a person occupies provides an opportunity for the use of such special strengths and the

higher the efficacy is likely to be. This is called self-role integration. The self or the person and the role get integrated through the possibility of a person's use of his special strengths in the role. Our special strengths are used in the role so that it may be possible for us to demonstrate how effective we can be. Integration contributes to high role efficacy. On the other hand if there is a distance between the self and the role, role efficacy is likely to below.

b. **Proactivity:** A person who occupies a role, responds to the various expectations that people in the organization have from that role. While this certainly gives him satisfaction, it also satisfies others in the organization. However, if he is also expected to take initiative in starting some activity, the efficacy will be higher. Reactive behavior helps a person in being effective to some extent, but proactivity contributes much more to efficacy. If a person feels that he would like to take initiative but has no opportunity to do so in the role that he occupies in the organization, the efficacy will be low.

c. **Creativity:** It is not only initiative which is important for efficacy. An opportunity to try new and unconventional ways of solving problems or an opportunity to be creative is equally important. If a person perceives that he has to perform only routine tasks, it is detrimental towards a high role efficacy. If he feels that the role does not allow any time or opportunity to be creative, the efficacy is bound to be low.

d. **Confrontation:** If people in an organization avoid problems or shift the problems to others; their role efficacy will be low. The tendency to confront problems and find relevant solutions contributes to efficacy. When people facing inter-personal problems sit down, talk about these problems, and search out solutions, their efficacy is likely to be higher when compared with situations in which they either deny such problems or refer them to their higher officers.

2. **Role Centering:** It consists of the following two aspects:

   a. **Centrality:** If a person occupying a particular role in an organization feels that the role he occupies is central in the organization; his role efficacy is likely to be high. Every employee would like to feel that his role is important to the organization. If persons occupying various roles feel that their roles are peripheral i.e. not very important, their potential effectiveness will be low.

   b. **Personal Growth:** If a person feels that he is stagnating in a role without any opportunity to grow he is likely to have a low role efficacy. In many institutes of higher learning, the roles of the staff pose problems of low efficacy. The main factor behind this is the lack of opportunity for them to grow systematically in their roles. Institutes which are able to plan the growth of such people in the roles will have higher efficacy and obtain a great deal of contribution from them.

3. **Role Linking:** It consists of following three aspects:

   a. **Inter-role Linkage:** Linkages of one's role with other roles in the organization increases efficacy. If there is a joint effort in understanding problems, finding solutions,

the efficacy of the various roles involved is likely to be high. The feeling of isolation of a role reduces role efficacy.

b. **Helping Relationship:** If the person performing a particular role feels that they can get help from some source in the organization whenever the need arises, they are likely to have higher role efficacy. On the other hand, if there is a feeling that no help is forthcoming when asked for, or that the respondents are hostile, role efficacy will be low.
c. **Super Ordination-** When a person performing a particular role feel that what he does is likely to be of value to a larger group, his efficacy is likely to be high. Roles in which people feel that what they are doing is helpful to the organization in which they work, result in role efficacy. But if a person feels that he does not get an opportunity to be of help to a larger group, the role efficacy is likely to be low.

Tschannen-Moran &Woolfolk-Hoy propounded three components of teacher efficacy, efficacy for classroom management, efficacy for instructional techniques and efficacy for student engagement:

1. **Efficacy for Classroom Management:** This component revolves around a teacher's belief in their ability to establish and maintain effective classroom discipline, manage student behavior, and create a positive and orderly learning environment. Teachers with high efficacy for classroom management feel confident in their skills to handle disruptions, foster a respectful atmosphere, and address behavioral challenges effectively. This aspect is crucial for establishing a conducive and controlled setting that facilitates optimal learning.
2. **Efficacy for Instructional Strategies:** This component pertains to a teacher's confidence in their capability to employ varied instructional strategies and methods to effectively convey content and enhance student understanding. Teachers with high efficacy for instructional techniques believe in their aptitude to choose and implement diverse teaching approaches, adapt to students' learning styles, and employ innovative methods to cater to the diverse needs of their students. This component is fundamental for promoting engaging and effective instruction.
3. **Efficacy for Student Engagement:** This component centers on a teacher's belief in their ability to capture and maintain students' interest, motivation, and active participation in the learning process. Teachers with high efficacy for student engagement perceive themselves as influential contributors to fostering an environment that stimulates students' curiosity, enthusiasm, and sustained interest in the subject matter. This aspect is pivotal for creating a positive and dynamic learning atmosphere that promotes student involvement and investment in their own education.

The interconnected framework of teacher efficacy, encompassing the components of efficacy for classroom management, instructional techniques, and student engagement, underscores the comprehensive and interdependent nature of a teacher's perceived competence. It suggests that effective teaching extends beyond isolated skills and involves a holistic approach to various

dimensions of the educational process. When teachers possess confidence in managing the classroom, implementing diverse instructional methods and engaging students effectively, they are better equipped to create a positive and enriching learning environment. This holistic competence is crucial for planning a successful educational experience, where teachers not only convey information but also foster discipline, adaptability, and sustained student interest, contributing to a more comprehensive and rewarding learning journey for students.

2. REVIEW OF LITERATURE

The studies collectively provide a fine exploration of teacher effectiveness and self-efficacy, examining various dimensions such as student engagement, instructional strategies, classroom management and the impact of demographic variables. According to the study conducted on "Teacher Self-Efficacy as a Function of Student Engagement, Instructional Strategies and Classroom Management". This study was undertaken to measure the teacher's self-efficacy on three subscales namely Student Engagement, Instructional Strategies and Classroom Management. The primary aim of the study was to assess the teacher's self-efficacy on these subscales in relation to gender, age, professional qualification, school status and nature of job. A sample of 108 male and 90 female teachers from four public schools in Lahore was selected for this purpose. This study looked at self-efficacy as a factor in student engagement, taking into account a variety of factors such as instructional tactics and classroom management. Findings revealed there is no distinction among male and female instructors on student engagement and instructional strategies, however male instructors had been probable to be significantly better in classroom management than female instructors. More qualified instructors managed their classrooms higher than much less certified instructors but no great variations had been detected throughout student engagement and instructional techniques as a characteristic of instructor qualification (Shaukat, S. and Iqbal, H. M. 2012). According to the study by (Gupta and Goswami 2014) "Is Self-Efficacy a Key Factor for Effective Teacher Educators"? To accomplish this, 300 teacher educators from both public and private universities were chosen as a sample. Tools for this study included the Professional Effectiveness Scale created by the researcher and the Occupational Self-Efficacy Scale (OSES) created by Pethe, Chaudhari and Dhar. The significance of the difference in mean scores was examined using the F-test. At the 0.01 level of significance, variations in professional effectiveness between teacher educators with high and low job value and those with average and low occupational self-efficacy were discovered. However, there was no significant different in the professional efficacy of teacher educators with high and moderate occupational self-efficacy. The "Study of Teaching Effectiveness of Secondary School Teachers in Relation to their Demographic Variables". This paper compared the efficacy of secondary school instructors in relation to their demographic characteristics such as gender, school type and location. The goals were to assess the efficacy of teaching between secondary school instructors who are male and female, between those who work in public and private secondary schools and between those who teach in urban and rural secondary schools. The Teacher Effectiveness Scale (TES) developed by P. Kumar and D.N. Mutha was used to collect data from 128 secondary school teachers in Rohtak,

Haryana using a survey approach. Different statistical procedures including mean, standard deviation and t-test were used to compare male and female, government and private, urban and rural instructors. The findings indicated that there was no significant difference in teacher effectiveness based on gender, school type and location (Ritu and Singh 2012). The purpose of the study "Teacher effectiveness of school teacher's was to assess the efficacy of school instructors in the districts of Chennai and Thiruvallur". The Teacher Effectiveness Scale, developed and standardized by Kumar and Mutha in 1974, was administered to 900 randomly selected school teachers. The efficacy of instructors was found to considerably vary depending on gender, location of the school and level of instruction, but not depending on age, marital status, style of management, years of experience and monthly salary of the teachers (Rajammal and Muthumanickam 2012). According to the study by (Tyagi 2013) carried out on "Teaching Effectiveness of Secondary School Teachers in Relation to their Demographic Characteristics". This study examined the efficacy of secondary school teacher's instruction and how it relates to the demographic traits of these instructors, including their gender, social background, category, marital status, subject specialization, age, educational background and teaching experience. The study's objectives were to examine the demographics of secondary school teachers and how they relate to several aspects of teaching effectiveness, such as knowledge, organization, leading, professionalism, clarity and presentation and enthusiasm. The information was gathered using an exploratory descriptive research approach by surveying 100 secondary school teachers in the Ghaziabad, Uttar Pradesh. The data was collected using a self-structured questionnaire on teaching efficacy and it was then statistically analyzed using the mean, standard deviation, t-test and correlation. Results indicated that several aspects of secondary school teacher's teaching efficacy were impacted by their demographic features, including their social background, marital status, school teaching experience, teaching subjects and educational background. The purpose of the study "Teacher Effectiveness of Secondary and Higher Secondary School Teachers" was to assess secondary and upper secondary school teacher's efficacy as educators. The current study employed the survey research methodology. The data was gathered using Umme Kulsum's Teacher Effectiveness Scale. A total of 130 secondary and higher secondary school teachers from the Chennai and Tiruvannamalai Districts in Tamil Nadu were chosen at random. Mean, standard deviation, t-test and one-way ANOVA were used to evaluate the data. The study's key finding was that there was no appreciable differences between male and female instructor's efficacy as educators. According to the study, teacher efficiency varied significantly depending on the location, arts and sciences stream, secondary and upper secondary level, amount of teaching experience and the kind of school administration (Pachpiyappan and Raj 2014). (Atta et al. 2012) conducted a study on primary and secondary teachers in Islamabad (Pakistan) to explore the Role of Gender and Teaching Experience on Teacher's Self-Efficacy. This study sought to determine the level of self-efficacy in elementary and secondary school teachers. It was hypothesized that there is no significant difference in mean scores on the "Teacher Self-Efficacy Scale" between male and female teacher's and that there is no significant difference in mean scores on the "Teacher Self-Efficacy Scale" between instructors with varied total career experience. The sample included

58 instructors, 30 of whom were male teachers and 28 of whom were female teachers. The sample was chosen randomly. Bandura's Teachers Self-Efficacy Scale was used to assess self-efficacy. Female teachers exhibit higher self-efficacy than male instructors, according to t-analysis. The results also revealed that the greater the employment experience, the greater is the self-efficacy of the instructor. With increase of total job experience, Efficacy to create Positive School Climate also increases. The purpose of the study "Determining Factors Affecting Teacher's Self-Efficacy at Secondary School Level" was to look at secondary school teacher's self-efficacy. The study's major goal was to determine the impact of age, gender, education, and teaching experience on secondary school teacher's self-efficacy. The self-efficacy scale developed by Albert Bandura was employed. The population of the study comprised all the secondary school teachers working under Federal Directorate of Education Islamabad. Stratified random sampling was used to choose 10% of teachers from each of the five sectors of the Federal Directorate of Islamabad for the study. The instrument's reliability was calculated as (0.896). T-test was used to determine the difference between two groups, whereas one-way ANOVA was used to determine the difference between more than two groups. The study's findings found that gender, academic degree, experience and location all had a substantial impact on secondary school teacher's self-efficacy, while age and professional qualification had no significant impact on secondary school teacher's self-efficacy (Shazadi et al., 2011). The "Effects on Teacher's Self-Efficacy and Job Satisfaction: Teacher Gender, Years of Experience and Job Stress" were examined by (Klassen, R.M. and Chiu, M.M. 2010). The authors of this study used factor analysis, item response modelling, systems of equations and structural equation method to investigate the associations between teacher years of experience, teacher characteristics (gender and teaching level), three domains of self-efficacy (instructional strategies, classroom management and student engagement), two forms of job stress (workload and classroom stress) and job satisfaction using a sample of 1,430 practicing teachers. Teacher's years of experience revealed nonlinear connections with all three self-efficacy measures, increasing from early to mid-career and then decreasing. Female instructors had more workload stress, more classroom stress from student actions and weaker self-efficacy in classroom management. Teachers with more workload stress had higher self-efficacy in classroom management, whereas teachers with higher classroom stress had poorer self-efficacy and job satisfaction. Those who taught young children (elementary grades and kindergarten) exhibited greater levels of self-efficacy for classroom management and student engagement. Finally, instructors who had more self-efficacy in classroom management or instructional practices had higher work satisfaction.

3. OBJECTIVES OF THE STUDY

The objectives of the present study are:

1. To assess the prominence of role efficacy (effectiveness) prevalent among the teachers working in Universities of Jammu & Kashmir across Gender.
2. To assess the prominence of role efficacy (effectiveness) prevalent among the teachers working in Universities of Jammu & Kashmir across Designation.

3. To assess the prominence of role efficacy (effectiveness) prevalent among the teachers working in Universities of Jammu & Kashmir across Qualification.
4. To assess the prominence of role efficacy (effectiveness) prevalent among the teachers working in Universities of Jammu & Kashmir across Teaching Experience.
5. To assess the prominence of role efficacy (effectiveness) prevalent among the teachers working in Universities of Jammu & Kashmir across Other Assignments.
6. To assess the prominence of role efficacy (effectiveness) prevalent among the teachers working in Universities of Jammu & Kashmir across Educational Institutes.

4. HYPOTHESES OF THE STUDY

In order to obtain the objectives of the present study, the researcher formulated the following hypotheses for testing. The hypotheses of the study are:

1. The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Gender would not differ significantly.
2. The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Designation would not differ significantly.
3. The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Qualification would not differ significantly.
4. The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Teaching Experience would not differ significantly.
5. The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Other Assignments would not differ significantly.
6. The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Educational Institutes would not differ significantly.

5. RESEARCH METHODOLOGY

5.1 Research Design

The primary focus of this investigation is to assess prominence of role efficacy (effectiveness) prevalent among the teachers working in Universities of Jammu & Kashmir across various demographic variables. To accomplish the study's objectives and validate the formulated hypotheses, data has been collected both from primary and secondary sources.

- **Primary Data Source:**

The data was collected through a well-designed questionnaire. Questionnaire was framed as per objectives of the study, aimed to capture insights related to teacher’s perceptions of their efficacy in Universities of Jammu & Kashmir.

- **Secondary Data Source:**

The study has also gathered secondary data from several articles and research papers published in diverse journals and magazines etc. Also the secondary data was assimilated from the websites of various universities in J&K.

5.2 Instrument

The questionnaire serves as the primary tool for collecting valuable data and its design plays a pivotal role in ensuring the reliability and validity of the study. The study aims to gather information about the perceptions of teachers.

The independent variable, Teacher Efficacy is drawn from well-established frameworks Udai Pareek's dimensions of role efficacy and Teacher's Sense of Efficacy Beliefs by Moran & Hoy. The designing of this questionnaire involved sourcing questions from established scales, specifically Udai Pareek's dimensions of role efficacy and Teacher's Sense of Efficacy Beliefs by Moran & Hoy. These questions were then carefully modified to align with the specific objectives and context of this study.

For exploring potential variations between groups, t-tests and ANOVA are employed. T-tests are effective for assessing significant differences between two groups, while ANOVA extends this analysis to examine variations across multiple groups, including different demographic categories. These statistical techniques play a crucial role in identifying disparities in teacher efficacy among various demographic dimensions.

5.3 Sample Features

- **Population:** The population of the study included teachers employed in Universities of Jammu and Kashmir.
- **Study Area**: For the study 9 Universities of UT of Jammu and Kashmir were selected.
- **Sample size:** 360 teachers were randomly selected from 9 universities of Jammu and Kashmir for the purpose of the study. For Teacher population, the optimal sample size for the study was calculated on basis of Taro Yamane's (1967) formula. The formula is as below:

$$\boldsymbol{n = N/ (1+N (e)^{2})}$$

$$n = 1701/ (1+1701 (0.05)^2$$

$$n = 1701/5.2525$$

$$\boldsymbol{n = 324}$$

Table 1: Sample Size

S.No.	Universities of J&K	Population	Sample
1.	University of Kashmir	420	90
2.	Central University Kashmir	162	36

3.	SKUAST-K	199	43
4.	Islamic University of Science & Technology	196	43
5.	University of Jammu	227	47
6.	Shri Mata Vaishno Devi University	124	25
7.	SKUAST-J	159	32
8.	Baba Ghulam Shah Badshah University	117	22
9.	Central University Jammu	97	22
		1701	**360**

Table 2: Sample Composition

Demographic Variables	Category Type	Total	Percent Sample
Gender	Male	212	59%
	Female	148	41%
Designation	Assistant Professor	173	48%
	Associate Professor	92	26%
	Professor	95	26%
Qualification	Post-Graduation	29	8%
	MPhil/PhD	320	89%
	Others	11	3%
Teaching Experience	< 8 yrs	102	28%
	9-15yrs	135	38%
	>15 yrs	123	34%
Other Assignments	HOD	39	11%
	Dean	11	3%
	Others	143	40%

	None	167	46%
Educational Institutes	University Of Kashmir	90	25%
	Central University Kashmir	36	10%
	SKUAST Kashmir	43	12%
	Islamic University Of Science & Technology	43	12%
	University Of Jammu	47	13%
	Shri Mata Vaishno Devi University	25	7%
	SKUAST Jammu	32	9%
	Baba Ghulam Shah Badshah University	22	6%
	Central University Jammu	22	6%

6. DATA ANALYSIS AND INTERPRETATION

H_1: The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Gender would not differ significantly.

The above hypothesis is tested by using t-test and the result is interpreted below. The result of t-test is presented in the table below:

Table 3: Perceptions of respondents towards Overall teacher's efficacy in universities of J&K across Gender

	GENDER	N	MEAN	SD	t	P
Overall Teacher's Efficacy	*Male*	212	3.84	.55	.23	.82
	Female	148	3.82	.61		

The above table explains the efficacy of teachers dimension wise across Gender among Universities of J&K. In terms of efficacy of teachers, males scored slightly higher with a mean of 3.84 and females scored a mean of 3.82. It implies male teachers have slightly more persistence, tolerance, influence, centrality, performance accomplishment than females. The significance level

of 0.82 is relatively high, indicating that the observed difference in mean teacher efficacy scores between males and females is not statistically significant. The null hypothesis formulated for testing that there will be no significant difference between Male and Female teacher in their teaching efficacy is accepted.

H_2: The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Designation would not differ significantly.

The above hypothesis is tested by using ANOVA and the result is interpreted below. The result of ANOVA is presented in the table below:

Table 4: Perceptions of respondents towards Overall teacher's efficacy in universities of J&K across Designation

	DESIGNATION	N	MEAN	SD	F	p
Overall Teacher's Efficacy	*Assistant Professor*	173	3.82	0.64	3.74	.03
	Associate Professor	92	3.72	0.5		
	Professor	95	3.95	0.47		

The above table explains the efficacy of teachers dimension wise across Designation among Universities of J&K. In terms of efficacy of teachers, employees working as Professor scored slightly higher with a mean of 3.95 and employees working as Associate Professor scored lowest with a mean of 3.72. It specifies that Professors perceive themselves as slightly more effective due to their extensive experience, deep knowledge and use of more effective teaching methods compared to Associate Professor. The p-value associated with the F-statistic is 0.03. The p-value of 0.03, suggests that there is a statistically significant difference in overall teacher's efficacy among designations (Assistant Professor, Associate Professor and Professor). The null hypothesis formulated for testing that there will be no significant difference between Assistant Professor, Associate Professor and Professor in their teaching efficacy is rejected.

H_3: The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Qualification would not differ significantly.

The above hypothesis is tested by using ANOVA and the result is interpreted below. The result of ANOVA is presented in the table below:

Table 5: Perceptions of respondents towards Overall teacher's efficacy in universities of J&K across Qualification

Overall Teacher's Efficacy	QUALIFICATION	N	MEAN	SD	F	p

	Post Graduate	29	3.70	.65	1.00	.37
	MPhil/ PhD	320	3.84	.55		
	Others	11	3.75	.88		

The above table explains the efficacy of teachers dimension wise across Qualification among Universities of J&K. In terms of efficacy of teachers, employees having MPhil/PhD as qualification scored slightly higher with a mean of 3.84 and employees having post graduation as qualification scored lowest with a mean of 3.70. It specifies that teachers with MPhil/PhD as qualification perceive themselves as slightly more effective in positively impacting student learning outcomes compared to those having post graduate qualification. The significance level of 0.37 is relatively high. This indicates that the observed difference in mean teacher efficacy scores across qualification groups is not statistically significant. The null hypothesis formulated for testing is accepted.

H_4: The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Teaching Experience would not differ significantly.

The above hypothesis is tested by using ANOVA and the result is interpreted below. The result of ANOVA is presented in the table below:

Table 6: Perceptions of respondents towards Overall teacher's efficacy in universities of J&K across Teaching Experience

	TEACHING EXPERIENCE	**N**	**MEAN**	**SD**	**F**	**p**
Overall Teacher's Efficacy	*Below 8 yrs*	102	3.8	0.58	.71	.49
	9-15 yrs	135	3.8	0.6		
	Above 15 yrs	123	3.88	0.53		

The above table explains the efficacy of teachers dimension wise across Teaching Experience among Universities of J&K. In terms of efficacy of teachers, employees having experience of above 15 yrs scored slightly higher with a mean of 3.88 indicating a higher level of seniority and possibly greater familiarity with teaching practices and challenges and employees having experience of below 8 yrs and 9-15 yrs scored lowest both with a mean of 3.80, this could be an indication where these particular experience groups might need additional support and development to improve their performance or perception. The significance level of 0.49 is relatively high. This indicates that the observed difference in mean teacher efficacy scores across

teaching experience groups is not statistically significant. The null hypothesis formulated for testing is accepted.

H_5: The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Other Assignments would not differ significantly.

The above hypothesis is tested by using ANOVA and the result is interpreted below. The result of ANOVA is presented in the table below:

Table 7: Perceptions of respondents towards Overall teacher's efficacy in universities of J&K across Other Assignments

	OTHER ASSIGNMENTS	N	MEAN	SD	F	p
Overall Teacher's Efficacy	*HOD*	39	4.08	0.52	2.90	.04
	DEAN	11	3.86	0.56		
	Others	143	3.82	0.63		
	None	167	3.78	0.53		

The above table explains the efficacy of teachers dimension wise across other Assignments they have in addition to teaching among Universities of J&K. In terms of efficacy of teachers, employees appointed as HOD scored higher mean of 4.08, it implies that these individuals have demonstrated better time management, more diverse skill set, and strong teaching effectiveness, potentially influenced by their leadership skills, experience, expertise, communication abilities and commitment to teaching. This finding emphasize that there is positive impact of effective leadership and organizational roles on teaching practices and student learning outcomes. Employees that are solely engaged in teaching and have additional assignments scored lowest with a mean of 3.78. The p-value associated with the F-statistic is 0.04. The p-value of 0.04, suggests that there is a statistically significant difference in overall teacher's efficacy among other assignments (HOD, DEAN, Others and None). The null hypothesis formulated for testing is rejected.

H_6: The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Educational Institutes would not differ significantly.

The above hypothesis is tested by using ANOVA and the result is interpreted below. The result of ANOVA is presented in the table below:

Table 8: Perceptions of respondents towards Overall teacher's efficacy in universities of J&K across Educational Institutes

	UNIVERSITY	N	MEAN	SD	F	p
Overall Teacher's Efficacy	*University Of Kashmir*	90	3.93	0.48	3.70	.00
	Central University Kashmir	36	3.69	0.45		
	SKUAST Kashmir	43	4.11	0.77		
	Islamic University Of Science & Technology	43	3.79	0.46		
	University Of Jammu	47	3.73	0.58		
	Shri Mata Vaishno Devi University	25	3.56	0.45		
	SKUAST Jammu	32	3.62	0.6		
	Baba Ghulam Shah Badshah University	22	3.98	0.74		
	Central University Jammu	22	3.84	0.43		

The above table explains the efficacy of teachers dimension wise across Universities of J&K. In terms of efficacy of teachers, teachers employed in SKUAST Kashmir scored highest with a mean of 4.11, followed by BGSBU with a mean of 3.98, University of Kashmir with a mean of 3.93, Central University Jammu with a mean of 3.84, IUST with a mean of 3.79, University of Jammu with a mean of 3.73, Central University Kashmir with a mean of 3.69, SKUAST Jammu with a mean of 3.62 and SMVDU scored lowest with a mean of 3.56. Higher mean scores for universities reflected a more stimulating and encouraging learning environment for students. The differing mean ratings among universities indicate how teachers from various institutions evaluate their own efficacy in carrying out their jobs and responsibilities. Universities can determine their areas of strength and potential areas for progress in terms of boosting teacher effectiveness by looking at certain aspects where the mean scores are greater or lower. The p-value associated with the F-statistic is 0.00. The p-value of 0.00, suggests that there is a statistically significant difference in overall teacher's efficacy among Educational Institutes. The null hypothesis formulated for testing that there will be no significant difference between Universities in their teaching efficacy is rejected.

7. FINDINGS

- **Gender:**

The male and female teachers do not differ statistically significant with respect to dimensions of role efficacy. Effectiveness is slightly higher for males teachers compared to females.

- **Designation:**

The teachers having different designation differ statistically significant with respect to dimensions of role efficacy. Teachers designated as Professors report higher efficacy scores, while those designated as Associate Professors have lower efficacy scores.

- **Qualification:**

The teachers having different qualifications do not differ statistically significant with respect to dimensions of role efficacy. Teachers having MPhil/PhD as qualification report higher efficacy scores, while those having PG as qualification have lower efficacy scores.

- **Teaching Experience:**

The teachers having different years of experience do not differ statistically significant with respect to dimensions of role efficacy. Teachers having experience above 15 years report higher efficacy scores, while those between 9-15 years and below 8 yrs of experience have lower efficacy scores.

- **Other Assignments:**

The teachers executing other Assignments in addition to teaching as HOD, Dean, Others and None differ statistically significant with respect to dimensions of role efficacy. Teachers having additional duties as HOD report higher efficacy scores, while those having none additional duties have lower efficacy.

- **Educational Institute:**

Teachers employed in different Universities differ statistically significant with respect to dimensions of role efficacy. Teachers employed in SKUAST Kashmir report higher efficacy scores, while teachers employed in Shri Mata Vaishno Devi University have lower efficacy.

Table 9: Summary of the findings

H_1	The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Gender would not differ significantly.	**Insignificant**	**Accepted**
H_2	The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Designation would not differ significantly.	**Significant**	**Rejected**

H_3	The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Qualification would not differ significantly.	**Insignificant**	**Accepted**
H_4	The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Teacher Experience would not differ significantly.	**Insignificant**	**Accepted**
H_5	The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Other Assignments would not differ significantly.	**Significant**	**Rejected**
H_6	The Intensity of role efficacy (Effectiveness) prevalent among the teachers of Universities of Jammu and Kashmir across Educational Institutes would not differ significantly.	**Significant**	**Rejected**

The analysis of role efficacy among teachers in different universities revealed several interesting findings. Gender did not show a statistically significant difference in role efficacy, though male teachers demonstrated slightly higher effectiveness compared to their female counterparts. Designation played a significant role, with Professors reporting higher efficacy scores than Associate Professors. Qualification, on the other hand, did not yield significant differences, but teachers with MPhil/PhD qualifications reported higher efficacy scores compared to those with PG qualifications. Teaching experience showed that teachers with over 15 years of experience had higher efficacy scores. The presence of additional assignments had a significant impact, with HODs reporting higher efficacy scores than those without additional duties. Finally, the university itself played a crucial role, as teachers in SKUAST Kashmir reported higher efficacy scores compared to those in Shri Mata Vaishno Devi University.

8. SUGGESTIONS AND RECOMMENDATIONS

Professional Development Programs: Universities should invest in professional development programs, especially for Associate Professors, to enhance their role efficacy.

Recognition and Rewards: Recognizing and rewarding the contributions of HODs and professors can boost overall role efficacy. Acknowledging their additional responsibilities is crucial.

Support for PG-Qualified Teachers: Universities should consider providing additional support and training for teachers with PG qualifications to improve their role efficacy and bridge the gap with their MPhil/PhD-qualified counterparts.

Mentoring Programs: Establishing mentoring programs for teachers with less than 8 years of experience can help them navigate their roles more effectively.

University-specific Strategies: Each university should assess its unique challenges and strengths to develop tailored strategies for enhancing role efficacy among its teaching staff.

Continuous Feedback Mechanism: Implementing a continuous feedback mechanism can help identify and address issues related to role efficacy promptly. This can involve regular assessments, surveys, or open communication channels.

Collaborative Initiatives: Encouraging collaboration and knowledge-sharing among different universities can contribute to the overall improvement of role efficacy in academia. This can involve joint workshops, conferences, and collaborative research projects.

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