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iJIM International Journal of Interactive Mobile Technologies

iJIM | eISSN: 1865-7923 | Vol. 18 No. 20 (2024) | OPEN ACCESS

https://doi.org/10.3991/ijim.v18i20.50257

PAPER

Measuring Teachers' Motivation Toward Professional Development through Integration of Mobile Technology

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ABSTRACT

The integration of technology in teacher training is an integral part of motivation in the 21st century. The integration of mobile technology in teacher training and professional development can bring about a meaningful change in their career. This study examines how, in the academic environment of Sindh, Pakistan, in-service training sessions contribute to the professional skill development and motivation of instructors. The study has two primary aims. The first involved examining how teacher training programs affected instructors' willingness to continue in the classroom and to enroll in training programs. The second involved examining how these sessions affected teachers' ability to advance their careers and develop their confidence and self-efficacy. Data for the study were gathered using a survey research approach. To gather information from 450 teachers in Sindh, Pakistan—both private and public—a structured questionnaire was created. The information gathered from the survey was examined using statistical analysis. The study's findings demonstrate that in-service teachers are not as motivated or proficient in their professional development as they should be by training sessions through the integration of mobile technology. The main motivators for the instructors to attend these workshops are their financial and social advantages. According to the study, several essential elements of successful teacher preparation are absent from these in-service training sessions. As a result, the study suggests that training programs abandon their conventional methods and modernize to better meet the demands of teachers today through the use of technology, which most teachers avoid using. More than merely formal meetings, training sessions should be scheduled to prepare instructors for actual learning objectives. Future academics of teacher training programs may find value in the study's conclusions with the application of mobile technology by providing appropriate pre-training sessions for the use of technology.

KEYWORDS

in-service teachers, motivation, professional development, training skills, mobile technology

Pathan, H., Borisova, A.S., Bakhsh, I., Aleksandrova, O.I. (2024). Measuring Teachers' Motivation Toward Professional Development through Integration of Mobile Technology. *International Journal of Interactive Mobile Technologies (iJIM)*, 18(20), pp. 66–84. https://doi.org/10.3991/ijim.v18i20.50257

Article submitted 2024-06-02. Revision uploaded 2024-08-06. Final acceptance 2024-08-07.

1 INTRODUCTION

Teachers can benefit from receiving information, skills, and motivation through in-service training. It is a means of offering ongoing education to educators who are interested in teaching as their career and have completed any kind of teaching certification. It is the set of exercises designed to help instructors improve their knowledge, develop their abilities, and widen their perspectives as professionals known as in-service teacher training [1, 10, 58, 65, 66]. These courses often center on helping teachers transform in the areas of knowledge acquisition, satisfaction with work, motivation, and professional development through mobile technology integration. Most of all, teacher training motivation is essential in professional development due to the constraining situations associated with the lack of resources and a highly conventional way of teaching. Nowadays, mobile technology is integrated into the professional development program as well, which has been quite successful for teachers, who consider mobile learning as much more pleasurable and valuable compared with traditional methods [1, 2, 11]. That offers flexibility and cost-effectiveness in underdeveloped regions. The positive outcome of mobile technology has been identified in these studies to increase knowledge and skills among teachers, which ultimately benefits students' outcomes. Teachers can be better prepared and inspired to teach students excellently by preparing mobile apps and resources specifically designed for the teachers, including visual literacy courses. This has contributed to enhancing the quality of training for future teachers because the use of digital technologies, including mobile learning, increases the motivation of teachers and students toward their professional development [1, 3, 6].

Teacher motivation has a direct impact on the learning process since teachers are essential to the educational process. As a result, educators must possess motivation. In-service teacher training courses are highly crucial to sustain the instructor's motivation and their development as professionals [2, 9]. There are many other ways to hold in-service training programs, including conferences, seminars, staff meetings, etc. While it is prevalent at the school level, training for in-service teachers is uncommon at the university level in Pakistan. The majority of private institutions and, increasingly, public schools provide various in-service teacher training programs. Well-researched areas include teacher education and mobile technology. Mobile technologies have been indicated to support learning and training processes and close the gap between traditional methods of training and modern requirements for education if applied within the pedagogical development frameworks of teachers [3, 13].

Maintaining an efficient teaching process depends in large part on teacher motivation and professional development. Thus, it may be intriguing to learn how these in-service training sessions for teachers contribute to increased professional growth and teacher motivation. The study looks at how in-service teacher training affects teacher motivation and how it contributes to professional growth, knowledge acquisition, and self-efficacy in teachers, all of which are important aspects of education at the school level. The efficacy of in-service training courses for instructors in public and private schools differs, and this is another area of attention for the study. The paper might help educational institutions and school administrations enhance their teacher training activities. The study's conclusions may also assist teacher trainers in understanding what aspects of teacher preparation are more motivating for educators and how instructors feel about these in-service training initiatives. Future scholars and legislators may find the study useful in their investigations into and overhauls of the educational system.

1.1 Objectives

- To evaluate the influence of training sessions on instructors' motivation to continue in the classroom through integration of mobile technologies.
- To describe the influence of training sessions on capacity building and motivation through the use of mobile technologies.

1.2 Research questions

- How far do training sessions impact instructors' willingness or motivation to continue in the classroom through integration of mobile technology?
- What role do training sessions play in capacity building of instructors in motivation for the use of mobile technology?

2 LITERATURE REVIEW

A variety of educational activities are included in teacher training to improve teachers' understanding of teaching and other professional abilities. Since instructors are typically seen as the center of social education, training for in-service educators can be thought of as a set of activities and programs designed to help in-service teachers advance their knowledge and areas of interest [4, 56, 59]. Furthermore, [5] suggested that frequent in-service training should be offered to teachers as a continuous investment in their professional development, based on their study on the subject of in-service training for vocational instructors. According to [6], educators must acquire new competencies so they can effectively educate the next generation that is acquiring knowledge beyond the confines of the classroom. Additionally, it is suggested that teachers participate in training to learn about cutting-edge innovations, pedagogical approaches, and developing teaching trends, as well as how to use them in their teaching environments [7].

According to [8], in-service training for teachers is a methodical and efficient approach to improving teachers' perceptions about providing high-quality education to their pupils, either individually or collectively. According to [9], instructors who receive in-service teacher training vary from those who do not in terms of their teaching methods, subject matter expertise, and assessment strategies. [10] asserts, based on a review of the research on the subject, that in-service teacher preparation is crucial for improving teachers' effectiveness in the classroom. In his case investigation of a Pakistani public school, [11] concludes that in-service training for teachers has improved the attitudes of trainee teachers. Nevertheless, several obstacles prevent teachers from putting the concepts they have learned into practice in the classroom. Additionally, [12] have noted that financial, professional, and administrative assistance are just as crucial to maximizing the benefits of the training as in-service preparation for teachers. Moreover, [13] argues that if the environment and the instructors' actual needs are not taken into consideration, it may be difficult to expect any significant change in teachers as a result of training.

2.1 Mobile technology and teacher training

Technological advancements have changed the way we work, train, and develop on professional platforms. It is an undeniable fact that technology has

facilitated teaching, training, and learning. More importantly, mobile technology has received much attention in teacher education around the globe. The integration of mobile technologies in teacher development has garnered significant attention in recent years. The review of related literature discusses the various studies that propose how mobile technologies can be used to enhance teacher professional development. Their significance, challenges, and opportunities in educational settings. In addition, [14] looks at the need to use technology in the training of the teacher. They critically analyze the various examples and approaches used while using mobile technologies to support teacher development and the calls for a need to have robust support systems for its proper implementation. According to [15], teacher attitudes and levels of engagement while participating in professional development that incorporates mobile teacher engagement and professional growth by offering easy means of learning that are convenient and flexible. [16] On the other hand, discuss the manner in which mobile technologies will change teacher development. Their research work dwells on how mobile technologies can bring a change and invite a reappraisal in teacher education. It, therefore, underscores that mobility in education offers flexibility, which will then shift how regular teachers could operate.

2.2 In-service training of teachers, professional development, and motivation

Motivation is commonly regarded as a force that influences or guides people's conduct [17]. According to scholars [18], for instance, teacher motivation is what draws someone to become a teacher, stay in the field, and come up with engaging lesson plans for the kids. According to [19], one of the most important elements in the processes of teaching and learning is motivation [20]. It is also one of the psychological elements that is studied the most. According to [21], motivation plays its function as a catalyst in anyone's achievement. It has been further investigated in the research. [22] stated that, however, the issue still requires attention in other circumstances. Scholars [23] typically divide motivation for teachers into two categories. Pre-service and in-service teacher motivations are the two types of motivation. [24, 25] noted that the choice of better teaching materials, instructional strategies, classroom management, and punishment all affect teachers' in-service motivation. Additionally, leadership, appropriate professional relationships, professional input, teacher development, and teacher assessment are important components that affect teachers' motivation. An examination of the elements that demotivate instructors can also provide insight into their motivation. De-motivating influences are divided into five categories by [19]. These categories include subject repetition, low self-efficacy, stress, unsuitable career structure, suppression of teacher autonomy, and restricted possibilities for intellectual development. [26] further make clear that throughout education, teacher motivation is frequently disregarded. Teacher motivation may be noticed in all theoretical perspectives, for example, expectation theory, equity theory, and the work enrichment principle [27, 28].

The technology has gained much attention in today's research. Teachers attitudes, perceptions, and technological competencies do matter and affect the use of technology in teacher's professional growth [70]. The results indicated that future mathematics educators exhibited a favorable stance regarding the field and displayed

enthusiasm for instructional activities. The perception of their academic capabilities was a significant predictor of their outlook on their teaching career. Likewise, the views of aspiring mathematics teachers on the teaching profession were inversely associated with their academic lack of motivation [71].

There is a systematic approach to enhancing teachers' knowledge, motivation, attitudes, and behaviors for better student learning outcomes known as professional development (PD) [29, 30]. PD is a process that has a substantial effect on teachers' attitudes and behaviors, changes in education, and how students learn [31]. According to [32], teacher motivation has a major role in whether PD is successful or not and focused on participant reactions, learning, and training transfer; however, he also included other dimensions, including learning outcomes for students, organizational support, and transformation. Further research is necessary to fully understand the phenomena, though. [33], for instance, suggests that there are unknown variables about instructors' acquisition of novel concepts and students' reactions to them.

Teacher learning and professional development are strongly correlated; yet, this connection is frequently overlooked [26]. According to [34], an early study indicates that the motivation of teachers was derived from their desire to instruct pupils, as well as from their established work context (discipline, class work, etc.) and better content (PD, demanding work, etc.). An intrinsic approach to motivating teachers for educational contexts has also been explored by [35, 44, 63], who have focused on circumstances that foster meaning-making, positivity, comprehensiveness, and performance-based orientation. Within-service teacher development in the United States has no beneficial benefits on teachers' productivity or students' academic success; teacher training might be one of the many elements that contribute to teacher motivation [36]. According to the [18] research, instructors who are motivated to learn are more professional and developed, which gives them the chance to learn more throughout training. According to [37] a recent study conducted in Uganda, in-service teacher training improves teachers' professionalism, motivation, knowledge, and performance. This theory corroborates by pointing out that instructors are motivated to learn new techniques and enhance their professional development during training sessions [2].

A deeper and more contextualized analysis is needed to examine in-service teacher training and teacher motivation. [38] assert that a significant factor influencing teacher motivation is the moral training received by in-service teachers in the Pakistani environment. In a similar vein, [39] claims that a blended model—teacher training using instructional technology—has assisted instructors in increasing their professional development and motivation in research on teachers' perceptions of in-service workshops on professional development. The genuine nature of contextually appropriate in-service teacher training, which can have an impact on teacher motivation and professional development, has to be further investigated.

2.3 Conceptual and theoretical framework of study

It is widely accepted that learning theories offer a fundamental theoretical framework for training activities, andragogy—a theory of adult learning—rather than pedagogy—a theory of child learning—is typically taken into consideration in the context of teacher preparation programs. [40] talks about the conditions that support

adult learners, which include: (a) a comprehensive process of gaining knowledge from and through other peers; (b) teamwork throughout the working and acquiring knowledge process; and (c) chances to pick up tips from those in comparable situations. (d) difficulties, independence, and a range of job roles.

In mobile technology-assisted learning and training, the study shows validated models employed in various contexts. Multimodal mobile assisted language learning (M-MALL) is very often quoted in different research articles. The validation of this model is being communicated through research. Other research shows that mobile-based training has a positive impact on both learning outcomes and on the attitude of teachers toward their professional development, increasing their teaching skills and the possibility of integrating technology into practice [41]. Teachers accept and use mobile technology for skills-based training during the 21st century if determinants such as performance expectancy, effort expectancy, and social influence are stressed in designing the mobile learning intervention, contributing to sustainability and increased access to quality learning [42]. There has been a discernible movement in the training of educators from behavior theories of teaching and learning to more constructive and cultural theories. The argument that conventional means of professional development have failed to significantly alter teachers' practices is also supported in teacher education. According to [43], since the transforming learning (TL) concept is regarded as a suitable way to bring forth changes in adult students based on their comprehension of their experience and, therefore, how the instructor evaluates their suggestions for further progress despite criticism from some researchers [44].

However, this study, which draws on the concept of TL, views professional development for teachers as a chance for educators to grow in their ability to effect change in the world. As a result, when considered as an independent variable, the study shows that in-service instruction affects participating teachers' academic achievement, self-efficacy, social and financial benefits, communication and technical expertise, motivation, and academic achievement (see Figure 1).

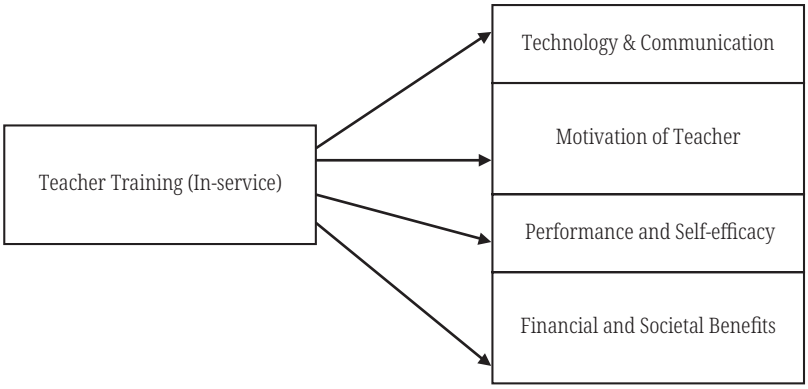

Fig. 1. Conceptual framework of the current research

3 DATA AND METHODS

3.1 Quantitative design

The study was descriptive, and it employed a quantitative study method. The purpose of using the quantitative approach was to provide descriptive statistics of

teachers' motivation concerning the integration of mobile technology—which is also recommended by [23] as a standard methodology for teacher motivation study—to examine the impact of in-service training for teachers on teacher motivation and professional development. In addition, the study used a survey as its study strategy. As a result, information on the targeted factors was gathered using a questionnaire. According to [45], it was also helpful to the researcher to acquire data using a questionnaire across a large-scale population in a shorter period.

3.2 Survey instrument

A questionnaire was created with the study's goals in mind to gather data. The questionnaire was created by closely examining the existing literature available on teacher motivation, technology integration, and professional development. A developed instrument has been used to measure teacher motivation and technology integration for the professional development of the current study. Additionally, it was examined by a specialist in educational motivating research. Several items on the researchers' questionnaire examined elements influencing teachers' motivation and their professional growth through in-service training. The survey employed a five-point Likert-type scale to offer respondents additional options beyond a simple "yes" or "no" response. A portion of the questions focused specifically on motivation, while others dealt with the professional and societal growth of teachers. The respondents were required to select on a five-point scale, ranging from strongly agree to strongly disagree. The survey was an adoration questionnaire that required respondents to complete on paper using a pencil and paper. In the social sciences, an alpha value higher than (seven) is considered extremely acceptable. This is the case for all five areas of the questionnaire: self-efficacy, performance, societal and financial benefits, collective skills of communication and technology, motivation, and teaching skills. Additionally, all five items' mean inter-item correlations were extremely good. It exceeded .3 for every item in the questionnaire. As a result, we chose to keep every item for the analysis.

3.3 Sampling

The study's participants were instructors from several schools located in Sindh, Pakistan. These instructors had received in-service training and were employed by several public and private schools. In a similar vein, the population of both genders from various public as well as private schools made up the population. To get data, simple random sampling is utilized. There were two groups made up of the whole population. Due to the differences in in-service teacher preparation between the public and private school systems, these categories were established based on the disparities between them. Hyderabad and Karachi, two districts in Sindh, were used to choose the sample. The goal was to get information from a range of both male and female school instructors that were included in the data collection. There were 450 instructors in all, 225 from public and private institutions. Additionally, 120 males as well as 105 female teachers from each group took part in the study. These teachers range in age from 18 to 58 and have a range of experience teaching, from two years to 10 years.

Institution Type	Institution Name	Male Teachers	Female Teachers	Total Teachers
Public and Private Universities	**Total**	**120**	**105**	**225**
	University of Karachi	30	25	55
	NED University of Engineering and Technology	20	15	35
	Institute of Business Administration (IBA)	15	10	25
	Aga Khan University	10	10	20
	Sindh University	25	20	45
	Mehran University of Engineering and Technology	20	25	45
Schools	**Total**	**120**	**105**	**225**
	Public School Hyderabad	25	25	50
	Beaconhouse School System	30	30	60
	The Smart School	20	20	40
	City School	25	10	35
	Bahria College	20	10	30
	Saint Bonaventure	25	10	35
	County Cambridge School	25	0	25
Grand Total		**240**	**210**	**450**

3.4 Categories of participants

One category of instructors included those employed by private schools (such as Saint Bonaventure School, The Smart School, Beacon House School System, the educators, City School, County Cambridge School, etc.), nearly all of which had some form of in-service teacher training program. These in-service programs for teachers are also known as professional development initiatives [46]. The participants received comparable training to the institution's requirements, offerings, and needs. A few of these educational institutions, including the beacon-house school system, host training sessions that emphasize subject matter expertise, instructional techniques, paper marking procedures, etc. The other focuses more on the communication and classroom management abilities of instructors. It is typically noted that these private institutions hold around two or three training sessions annually. The trainers are senior instructors or qualified trainers. The other category consisted of elementary school instructors employed by public schools.

The Sindh government education department has focused on the professional development and training of teachers over the past few years. It has created a sub-department for "Educational Development" in this regard. Public school teachers are now receiving initial and during-service teacher training from this. As a result, in-service teacher training is also provided to elementary school teachers in public schools, commonly referred to as primary school teachers (PSTs) and junior

elementary school teachers (JESTs). The majority of these trainings concentrate on topic knowledge and instructional strategies. Every six months, for instance, the Department of School Education hosts a two-day training session during which the trainers receive some sample lessons to use in their instruction. Most of the time, these model classes cover somewhat difficult subjects so that the student teacher may learn new material. Nonetheless, there is less emphasis on teachers' professional growth in in-service teacher training in the public sector. The trainers are often senior educators from the same department of education. However, UNICEF and the British Council are also officially recognized sponsors of Sindh Education of Educational Progress; as a result, these organizations occasionally supply trainers.

3.5 Data analysis

The collected data from teachers about training and professional development via mobile integration was analyzed with the support of statistical software to ensure the transparency and validity of results. Through the analysis, the study combines the varying responses of teachers and shares the common trends in professional development. Means and standard deviations were computed to report valuable insights into teachers' motivation toward integrating mobile technology as a part of their professional careers in educational institutes.

4 FINDINGS

The following Table 1 displays the descriptive analysis, which includes all items' mean scores and standard deviation:

Table 1. Means and standard deviations of a questionnaire

Questionnaire Items	Mean	Standard Deviation	Mean Difference	t-Value	Sig. (2 Tailed)
Motivation of Teacher	3.0	0.561	0.300	5.4	0.001
Technological + Pedagogic	2.98	0.560	0.480	11.01	0.000 = 1
Communication	3.13	0.60	0.320	6.160	0.002
Financial and Societal Benefits	3.60	0.68	0.481	8.700	0.009
Performance and Self-efficacy	3.38	0.71	0.370	6.320	0.000 = 1

All five items have mean values that are closer to the cutoff value of three. The mean score of 3.60 for the item "Societal and Financial Benefits" indicates that teachers are generally more optimistic about the societal and financial benefits of training for teachers, but not significantly so. Additionally, it suggests that the study's participants lacked clarity when responding to several questions about motivation and post-traumatic stress disorder. Teachers attend training because they gain socially and financially, as evidenced by the item with the highest mean score, "Societal and Financial Benefits." Comparatively speaking, the item with the lowest mean value (2.98) is "Teaching Skills," indicating that teacher training has minimal impact on instructors' ability to teach. This demonstrates that teacher training has a less significant impact than is typically thought on teachers' professional abilities

and motivation to engage in programs of training and continue in their careers. Similarly, teacher training has some impact on teachers' performance (mean value of 3.38) and self-efficacy.

Table 2. Items to motivate teachers through sample T-test

Questionnaire Items	Mean-Value	Standard Deviation	t-Value	Sig. (2-Tailed)
Motivation to teach through new instructional technique	3.03	1.07	0.70	0.50
Motivation behind obtaining training certifications	3.87	1.089	4.123	0.00 = 1
Motivation behind Training	2.61	0.949	–3.44	0.002
Motivation for your presenting abilities	3.44	0.911	4.810	0.00 = 1
Motivation for a career in teaching	3.10	0.801	2.712	0.03
Motivation to learn	3.04	0.820	1.200	0.24
Motivation to instruct in classes	4.20	0.510	–0.20	0.00 = 1
Motivation to participate	2.10	0.977	0.30	0.01

The findings of the one-sample t-test for motivation is displayed in Table 2. The purpose of the study is to compare the instructors' mean motivation factor score—which is based on their teacher training—with the cut-off value, which is 3. The table indicates that the mean value of the two items, "Motivation to learn" (0.24) and "Motivation to teach through new instructional technique" (0.50), is not statistically significant. This is because the p-value for these two items is more than 0.05. In a similar vein, the average values of every item but one, "Motivation to instruct in classes," are closer to the cutoff value of three and less than four. Additionally, the overall mean score is closer to 3, indicating that instructors are unsure about how much training motivates them.

Table 3. Items for the societal and financial benefits through sample T-test

Questionnaire Items	Mean-Value	Standard Deviation	t-Value	Sig. (2-Tailed)
Responses for several sessions	3.99	0.655	15.00	0.00 = 1
The introduction of oneself to the other	3.56	0.831	9.112	0.00 = 1
Connection with other participants	3.60	0.999	8.111	0.001
Chance of speaking with trainers	3.10	0.790	1.360	0.18
Having fun meeting new folks	2.40	1.270	–4.500	0.001
Professional value accompanied with certifications of training	3.74	0.922	8.621	0.00 = 1
Training mandated by outside organizations	4.11	0.700	17.900	0.00 = 1
Finding a new position	3.81	0.960	6.921	0.01
Impact on income	3.22	0.918	5.544	0.00 = 1
Financial and Societal Advantages	3.56	0.700	8.712	0.00 = 1

The average societal and financial benefits of teacher training as reported by instructors are displayed (see Table 3). The item "chance of speaking with trainers" has a P-value of larger than 0.05, indicating that it is not statistically significant. Except for one item, "Having fun meeting new folks," which has a mean value of 2.40, the table demonstrates that practically all things have mean values more than 3.2. The total value of the table is likewise 3.2, indicating that teachers desire to take advantage of the financial and societal benefits. The value of this item is the only one that is higher than the cutoff value of three, which is 3.2. All other things have values that are more than 3.5.

5 DISCUSSION

The study aimed to determine how in-service teacher training affects teachers' motivation to continue in the teaching profession and to attend training programs. It also looked at how the training affects teachers' professional growth. The data analysis indicates that instructors' motivation from the training sessions is lower than what is often anticipated of them. [47, 55, 56, 60] presented the fact that in-service training initiatives are widely implemented in public as well as private educational institutions, and the data indicates that there is no discernible motivational difference between the two categories of educators as a result of these programs. Teachers in public as well as private schools appear to consistently respond positively to the training certificate as one aspect of incentive in training [57, 59, 69]. The majority of instructors concurred that they attend in-service training sessions to obtain training certificates; [2, 67, 68] his survey conducted in a Greek setting, likewise supports this notion. Similarly, there is very little variation in the teachers depending on gender. The study affirms that in-service teachers are not very motivated by training sessions to engage in programs or to pursue careers in teaching. Although the age component is not examined in the current study, [48, 66] provides comparable results showing that younger instructors tend to engage less in professional development programs than those with greater experience. [49, 66] asserts that to keep up with the latest developments in education, both in teaching and assessment, teacher preparation is crucial. In Sindh, the public as well as privately owned school chains have established various training programs per the requirements of teacher education training programs [38, 69].

However, the results of the study indicate that these initiatives are not very effective in developing the professional skills and motivation of teachers [66, 68]. Furthermore, given that the majority of instructors are unwilling to take part in training programs, these programs must be evaluated and improved per the needs of the teachers. Since the Sindh Education Department is still in the early stages of in-service teacher training and is not as productive as other public departments in Sindh, Pakistan, one apparent factor that demotivates teachers from taking part in training programs may be the conventional means of organizing these boring in-service teacher training sessions [65, 39]. This is especially true for teachers working in public schools. Private school administrators do their best to offer relatively effective training programs in Sindh, Pakistan; however, it is challenging to concentrate on professional development and teaching skills in the typical classroom setting where grades are the only thing that matters rather than actual learning [38]. As a result, it has been demonstrated that training programs involve some kind of instruction where teachers learn how to help pupils cram more effectively. These seem to be the potential causes of the instructors' lack of motivation during in-service training

sessions. Data from the study reveals that teacher training programs have a small but noticeable impact on teachers' professional skills in overall teachers of Sindh, Pakistan. It is noteworthy that although instructors believe teacher training courses help them become more proficient communicators and techies, these sessions do not help them become better teachers overall [50, 54]. They asserted that teacher preparation is essential to students' academic success; also, the setting is critical to teachers' professional growth. The current study reveals that, in the Sindh context, the majority of teacher training sessions focus more on communication skills than on teaching abilities; as a result, instructors do not appear to be prepared for advanced and creative teaching as well as other professional skills. Knowledge acquisition is challenging, particularly for inexperienced teachers. Teacher training programs can help address this shortcoming. Understanding prospective teachers' motivation, the study shows that personality traits and the ability to manage emotions were important personality utility values in teaching [51].

However, this study reveals that when asked how teacher preparation improved their topic knowledge, instructors gave unfavorable answers. This suggests that the majority of programs for teacher preparation are not well structured to impart adequate topic knowledge. Teachers also expressed similar opinions on assessment procedures, test patterns, and curricula. Thus, it may be said that training sessions are not focused on topics such as exams, syllabuses, or subject knowledge, all of which ought to be covered. Subject matter experts yield higher student accomplishments, particularly in the fields of science and mathematics. As a result, topic knowledge must be included in teacher training sessions. Subject knowledge is disregarded, but teacher preparation programs also do not address the application of technology in the classroom [46]. Instructors claim they do not learn much about using modern technology in their instruction sessions, which suggests that new technical tools are not taught in training sessions. This may be treated as one of the issues in underdeveloped nations such as Pakistan [72]. Teachers concur that training sessions are beneficial for improving their communication skills, despite certain drawbacks. They also pick up new teaching techniques in the same way, which is corroborated by a different study conducted by [52, 63, 64]. This demonstrates that the bulk of the training programs concentrate on communication skills and instructional approaches. However, they are deficient in several crucial aspects of teacher education. Therefore, it may also be the cause of the teachers' lack of motivation during training sessions. In a similar vein, the study shows that instructors' performance and self-efficacy, as well as their level of confidence, are not significantly impacted by training sessions.

Despite the perception that instructors strive to apply what they learn in the classroom, training sessions have less of an impact on instructors' performance than they should. Nevertheless, it would be accurate to state that throughout these training sessions, instructors pick up a lot of practical advice on how to keep the class engaged, which eventually helps them in their line of work. The concept of providing training sessions for in-service teacher education is also emphasized by [53]. One of the key sources of internal and external motivation is money gain. Instructors will be highly motivated to participate in teacher training if they receive any financial gain from it. The teachers' response, then, was that they go to training sessions for teachers because they benefit socially and financially [54]. The training session certifications aid in their career search and advancement. Although the study was conducted in a Greek context, it confirms the similar findings to those in a Pakistani context. According to another investigation by [18], "teachers' engagement with training led to their acquisition of certification that is a tangible external incentive (e.g., qualification for their CV)." Teachers stated that attending training sessions enhances their professional value since, as a result of their training credentials, they are given precedence when

applying for jobs. They also said that, while they appreciate getting together with officials and other participants, they also see the training sessions as a chance to chat with them [65, 66]. Teachers also experience another type of extrinsic incentive from the training sessions: the chance to create positive relationships with other participants.

Research has shown that well-implemented TPD programs focusing on technology integration significantly improve teachers' confidence and competence in using digital tools in classrooms. Research shows the need for systematic studies to appreciate the long-term impacts of technology integration on teaching and learning, teacher motivation, and professional development [43, 61]. Moreover, [62, 63] point out the benefits of TPD in a school-based community, in that anxiety at the start is responded to with concern, given that by the end, most participating teachers enhance technology integration. Similarly, [63] reported an increase in all the domains of TPACK among international teachers' mindsets need to change if they are to view technology as a basic tool for effective teaching, with professional development targeting knowledge, self-efficacy, and pedagogical beliefs. All the studies above indicate that well-orchestrated TDP programs, including collaborative learning, reflection, and ongoing support, can make teachers much more motivated and competent at infusing technology into their instructional repertoire.

6 CONCLUSION

Technology integration provides teachers with professional development and, in the process, yields better teaching practices that enhance students' learning outcomes. The study concludes that instructional training sessions are only somewhat attractive to instructors who tend to be more goal-oriented and have a very favorable attitude about receiving more training. While these training sessions impart certain critical components of teacher education to educators, they are deficient in many crucial areas, which further deter educators from attending these sessions. Teacher training programs fall short in several ways of meeting teachers' needs in terms of their professional skills and motivation. The majority of instructors are uninterested in teacher training sessions, notwithstanding the distinction between public and private schools and gender roles. This calls for enhancements to these sessions. After bringing the entire conversation together, it can be determined that programs for in-service training are very important and are supposed to inspire and advance in-service teachers' professionalism. However, regrettably, they are not set up in a way that maximizes teacher motivation in the academic setting of Sindh, Pakistan. For these in-service training programs to provide what is anticipated of them, a critical examination of them is required, and they should be reorganized and arranged according to result grounds. The mobile technology integration in continuous professional development programs for teachers is very supportive and effective. The use of technology enhances the capacity building of teachers and increases the motivational level of educators.

7 ACKNOWLEDGMENT

This publication has been supported by RUDN University Scientific Project Grant System Project No. 050740-2-000, "English Teachers' Motivation for Professionalization in Internationally Oriented Universities," Peoples' Friendship University of Russia (RUDN University), 6, 117198, Russian Federation.

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