



Factors Affecting English Language Teachers' Participation in Professional Development at Private Universities in Karachi, Pakistan

Ishtiaq Ahmed Kolachi^{1*}, Dr. Syed Gul Muhammad Shah², Dr. Imran Ahmed³, Dr. Zahid Ali⁴, Dr. Nazir Ahmad⁵

Abstract

The goal of this quantitative study was to evaluate the link between internal and external factors that affect teacher involvement in professional development programs at private institutions in Karachi, Pakistan. Specifically, the study was conducted in Pakistan. In order to conduct the study, the researcher utilized a survey methodology and employed regression techniques. The sample size consisted of one hundred English language professors from four different business universities in Karachi. The examination of the data revealed that a number of factors, such as teachers' ages, their perspectives on efforts for professional development, the amount of time they had available, the resources they had available financially, and the influence of their peers, had a significant impact on the level of engagement that teachers had. On the other hand, the research found that factors such as gender, teaching grade level, teaching experience, educational background, teaching experience, educational qualifications, teachers' effectiveness, pedagogical head involvement, and school culture did not have a statistically significant impact on the extent to which teachers participated in activities for professional development.

Keywords: English Teachers, Teachers' Professional Development, Training Programs

1. Introduction

Three significant reforms are on the horizon for schools: first, teacher evaluations will be based on student test scores; second, academic standards will be widely adopted; and third, new high-stakes tests will be developed to reflect these new standards (Flores et al., 2023; O'Leary et al., 2023). All of these changes threaten the current way of things by mandating that schools systematically enhance and continuously assess student performance, with progress being marked and measured at every stage (Wolf, 2022). Teachers will need to make some major adjustments to accommodate the new curriculum. According to Khan et al. (2023) and Jahangeer and Muneer (2023), both public and private universities in Pakistan are working towards adopting the common fundamental requirements that have been defined by the Commission for Higher Education of Pakistan (HEC). According to Junego et al. (2018) and Habib et al. (2021), the objective is to shift the focus from traditional fact-based memorization to instruction that fosters analytical reasoning and problem-solving skills. It would appear that the lack of other options for professional development is not a major issue. Indeed, a recent survey found that 90% of teachers felt that the professional development opportunities they were given did not help them improve their teaching or advance in their careers (Sarfraz et al., 2023; Ahmad, Bibi, & Imran, 2023) in any meaningful way. The main problem is not a lack of professional development opportunities for teachers but rather the ineffectiveness of these offerings influencing either teachers' practice or students' learning.

With more rigorous standards and evaluations of teachers based on student performance, professional development in today's schools must center on how students learn. But for now, most professional development is aiming too low. According to Nawab (2023), the most common way for professional development to be implemented is through one-time workshops. The workshops, however, failed miserably in their goal of improving both classroom instruction and student outcomes (Abro et al., 2021). The local academic institutions are dealing with challenges and issues related to the upgrading and skill enhancement of university teachers (Yasmin & Naseem., 2019). The only way for pupils to improve their learning and critical thinking skills is the focus of different recent studies in documents (Jamil, Aslam, et al., 2024; Jamil, Hafeez et al., 2024; Jamil, Muhammad, et al., 2024), in social sciences, and science textbooks (Jamil, Mehmood, & Noorani, 2024; Jamil, Mehmood, & Saleem, 2024; Jamil, Mehmood, & Shah, 2024; Naseer et al., 2022), secondary level teachers' perspectives (Jamil, Anwar, et al., 2024; Jamil et al., 2021a), and teachers' practices (Jamil & Muhammad, 2019; Jamil et al., 2021b) is for teachers who are well-equipped and trained (Muhammad & Brett, 2019; Imran & Akhtar, 2023). Finding efficient ways for school administrators to plan and execute professional development opportunities for teachers of English as a second language was the major motivation for this research. Researchers hoped their findings would improve professor and student access to high-quality professional development opportunities. It sheds light on how to get the most out of the money for these projects so that they provide the benefits that are intended.

Training and education professionals all across the globe are taking part in TPDP events to hone their craft (Bubb & Earley, 2013; Thomas, Khan & Ahmad, 2022). At our colleges and universities, things are rather different; academic institutions, especially those in the private sector, have been struggling with the issue of educational genius. The faculty has become very set in their methods of doing things in the classroom. Teachers' career advancement could

^{1*} Assistant Professor, Mohammad Ali Jinnah University, Karachi, ishtiaq.ahmed@jinnah.edu

² Assistant Professor in English, Government Boys Degree College Nawab Shah

³ Assistant Professor, Govt. Premier College, Karachi, College Education & Literacy Department, Govt. of Sindh, Pakistan

⁴ HM, School Education & Literacy Department Govt. of Sindh

⁵ Associate Professor/HoD Department of Education, Fatimiyah Higher Education System, Karachi, Pakistan

be impacted by becoming rooted. Professional development activities that generate change could be one strategy to evade this going into professional development (Farooqui, Mustafa & Christie, 2014; Phulpoto, Oad & Imran, 2024). Along with this definition, professional development has been defined in a variety of ways recently, including attending workshops and training sessions on a regular basis, collaborating with seasoned experts in one's field, and adapting one's teaching methods to meet the necessities of individual learners (Clarke & Hollingsworth, 2002; Ahmad, Mankash & Sewani, 2024). There are numerous causes why CPD is crucial to the education sector: Because they should set an example for their pupils as enthusiastic, lifelong learners, instructors in today's schools must constantly update their own knowledge and skills to keep up with the demands of modern education (Ahmed, Muhammad, & Anis, 2020). Because their primary responsibility is to foster in their students a love of learning, teachers should model a dedication to and excitement for continuing their own education throughout their lives. Teachers must engage in professional improvement throughout their careers in order to meet the demands of education (Abbas et al., 2021; Ahmad et al., 2024; Akram, Fatima & Ahmad, 2024).

Human resources are an organization's most valuable asset because, unlike other resources, they can be enhanced to unprecedented levels through various interventions aimed at developing human resources. There was a heavy emphasis on continuing education for workers as a means to speed up national progress in the international arena. Teachers are more equipped to face the problems of the modern world thanks to TPDP, which guarantees that they have the necessary abilities (Karanja, 2019; Ali, Shah, & Ahmad, 2023). This is also the opinion of Pakistan's Board of Higher Education (HEC). The success of the country's educational administration and the acceleration of national development depends on the seriousness with which TPDP is treated. Nevertheless, in Pakistan, both the public and private sectors have found teacher development to be a particularly challenging area of teacher management. While some educators have embraced TPDP as an ongoing pedagogical strategy, the majority of respondents felt differently. As pointed out by Bell and Gilbert (2004), there are elements that encourage and those that discourage instructors from actively engaging in professional development. Teachers' ability to make a positive social and economic impact on the communities and societies to which they belong depends on their level of engagement in professional development opportunities. The study aims to identify the factors that influence the active participation of teachers DB at the higher education level, drawing on previous research that has identified different factors in different countries and cities. It is possible that Karachi has its own unique set of factors that influence teachers' participation in TPDP.

2. Literature Review

2.1. Theory of Reasoned Action

The majority of theoretical explanations for adults' engagement in CVT are either psychological or social in nature. The theory of reasoned behaviour takes into account both individual and community aspects in the decision-making process regarding schooling (Becker & Gibson, 1998). Reasoned action has been examined in numerous empirical investigations involving individuals and health education for varied cultures. This idea has been utilized in several contexts, such as workplace training, high school dropout rates, the aspirations of respiratory care practitioners to obtain a bachelor's degree, recreational decision-making, leisure behaviour, and other areas. According to the study conducted by Becker and Gibson (1998), reasoned activity has a positive impact on purposeful occupational training. In 1998, the National Centre for Education Statistics referred to the concept of "pre-reflective deliberation" (p. 17), which pertains to considering the consequences of one's actions before engaging in them. According to this theory, personal and societal attitudes and pressures are the main factors that influence intentions. According to McCamey (2003), the theory of reasoned action suggests that an individual's desires and the desires of others are significant and can influence the motivation of persons (Ajzen & Fishbein, 2004),

The teachers are honest and diligent, and their classes are successful. They don't teach students to actively develop their senses and reasoning, conduct research and approaches to issues, use strategies and questioning effectively, or come up with their own ideas and problems. This calls into question the core's accountability, especially when combined with test-aligned teacher evaluations. These improvements go beyond holding "responsible" educators accountable for student achievement. They also want to transform US education. Teachers must not only work with students from morning to afternoon but also learn new educational approaches they have never tried and rarely see their peers use. One of the biggest challenges facing schools today is providing teachers with professional development and motivation (Akram, Ahmad & Sewani, 2024). How to Boost Global and Pakistani Teacher Professional Development? It is crucial to take into account the participants' cultural backgrounds since, although most research on the subject has been done in the US or Europe, this study will be carried out in Karachi, Pakistan. Since 1900, Pakistani teacher professional development programs have been criticized (Saban, 2000). This led Pakistani scientists to focus more on the phenomenon. The findings show that qualified instructors are linked to high-quality education. The findings emphasize instructors' need for continual professional development. Training is a particularly important service in maintaining continuous professional development, and professional development programs are as vital as initial training (Hussain et al., 2021). Demirtas (2010) acknowledged that instructors who did not obtain enough pre-service training need professional development programs (TPDP) to improve their teaching skills. Make TPDP programs mandatory to engage more instructors.

The Turkish government may not mandate teachers to attend professional development programs, which may explain poor participation. Another reason is Pakistani teachers' permanent status. Thus, directors and superintendents cannot

restrict teachers' professional development. Instructors might choose professional development (Akram, Sewani & Ahmad, 2024; Ahmad, Rashid & Ali, 2023). Wage bonuses are unavailable to Pakistani teachers, which may lower participation. Some Pakistani scholars and educators say economic factors influence teachers' participation in professional development. Teachers in Pakistan also see time as a major barrier to professional growth. Money and time are linked. If teachers use TPDP time, substitute teachers need funding. If kids choose to take unpaid after-school classes, they must balance other obligations (Ahmad et al., 2023; Ali et al., 2023b). There may not be enough incentives to encourage volunteering. If after-school educators were paid more, state or federal monies would have to be set aside.

2.2. Internal factors

The literature on internal (personal) elements that influence participation places a strong emphasis on instructors' self-efficacy and attitudes towards professional development programs. Teachers' attitudes towards professional development influence their engagement. If teachers value professional development and recognize its value in their work, they are more likely to participate. Instructor self-efficacy, the confidence that one can achieve in professional development opportunities, is also important (Aslam, Iqbal & Ahmed, 2022; Dilshad, Shah, & Ahmad, 2023). The research shows that these internal drivers double teachers' participation in professional development programs, which affects instruction quality and student performance (Aamer, Muhammad, & Masood, 2019).

2.3. Organization-external factors

External (organizational) variables affecting teachers' professional development program engagement include several key factors. Time is important since teachers have a lot on their plates. You must schedule adequate time for professional development programs to ensure participation. Second, financing influences growth quantity and quality (Haider, Ahmad & Ali, 2024; Ali et al., 2023a). Providing educators with high-quality professional development and classroom materials requires institutional support. Management influence, such as administrative assistance and encouragement, increases engagement. The influence of school colleagues may also drive teachers to participate in professional development. A supportive and collaborative workplace fosters growth. Along with extrinsic variables, instructors' individual qualities have been found to be significant. Instructors' experiences, interests, and career aspirations affect how much time and effort they spend on student professional development (Imran et al., 2023; Jabeen, Ali & Ahmad, 2023). The interaction of external and personal factors complicates teacher engagement in professional development programs.

3. Methodology

The research was conducted in the metropolitan city of Karachi, Pakistan. Five of the top Business colleges were selected to collect the data. The selection of the research place to conduct the research was carefully considered. All those colleges that provide an opportunity for their faculty members to participate in the professional development activities were initially targeted. However, the researcher kept his research to only those five business colleges where such practice is being done on a regular basis. A sample of 75 faculty members of leading business colleges in Karachi participated in this research. The convenient sampling method was used to test the hypothesis. Convenience sampling is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. The sample was sufficient for the research requirements, and essential ethical measures were taken while gathering the data.

3.1. Research Design

The study design outlines the main research technique. It specifies the operations needed to prove a hypothesis under particular conditions. A research study should specify the main methods used to achieve its goals. The study used quantitative methods. An adapted instrument was modified for Pakistani conditions and authorized by the research supervisor. This study uses independent and dependent variables. Data was analyzed using the Pearson co-relational test. This study uses a co-relational research design because Lauer (2006) says it is an effective way to determine the statistical link between two or more variables. This design investigates how Professional Development Programs (PDP) affect the effectiveness of university English and Communication professors. Participants were given survey surveys to determine if PDP affects their teaching. Pearson correlation test in SPSS analyses data. Significant results helped the researcher accept or reject the hypothesis. The instrument's reliability is verified using Cronbach Alpha, and factor analysis is done using KMO and Bartlett.

Adaptation of Instrumentation/Data Collection

The purpose of this survey was to identify the elements that influence English teachers' decisions to engage in professional development opportunities. With his permission, we modified the instrument from a research study that was part of a dissertation proposal that he submitted to the University of Missouri, Turkey's Graduate School. Using SPSS, we examine the survey results to determine the relationship between the independent and dependent variables.

3.2. Measures

In order to determine what influences English teachers' decision-making regarding professional development activities, the researcher created and gave pre- and post-tests that assessed the impact of these programs. Choosing which people to include in a sample is an iterative process that differs from one research to the next. According to several studies (De Vaus & de Vaus, 2013; Naeem, Ali & Ahmed, 2022; Shah, Ali & Ahmad, 2024), researchers widely agree that larger samples have lower rates of sampling errors and more reliable results. In order to make survey estimates more trustworthy, doing things like expanding the sample size. To conduct this study, researchers surveyed

75 faculty members from top business schools in Karachi. In order to test the hypothesis, the easy sampling method was utilized. Research validation procedures were followed, and the sample was suitable for the needs of the study. This study employed Poisson regression, a statistical method that uses a count variable as its dependent variable and many independent variables as its explanatory variables, to analyze the data. In this study, university teachers' experiences with internal and external factors are the independent variables, while participation in professional development activities throughout the course of the previous year is the dependent variable. The two measures comprising the independent variables related to internal (personal) qualities are educators' views on opportunities for professional development and their self-confidence. To classify the independent variables related to the external (environmental) elements, we have created five scales: Time is the most important factor, followed by money (a pay supplement), management, coworkers, and business culture in that order. The control variables in this study are the educational background, gender, age, and number of years of teaching experience of the instructors, in addition to the grade level of the assignment. A series of questions regarding teachers' attitudes and experiences connected to professional development (PD) were used as independent variables in this study, with the framework serving as the basis for the questions.

4. Results

A descriptive statistic was run to test the faculty members' practices of TPDP activities. This helped the researcher in the final analysis as it showed the frequency of participation of the faculty members who participated in TPDP activities. Table 1 presents a concise overview of the descriptive statistics pertaining to the number of TPDP activities in this investigation. The faculty members had an average attendance of 4.04 in TPDP activities.

Table 1: TPDP activities participation average

N	Valid	75
Mean		4.040
Median		4.000
Mode		4.00
Skewness		-.080
Std. Error of Skewness		.277
Kurtosis		-.763
Std. Error of Kurtosis		.548
Sum		303.00

Table 2: Frequency of FD participation

		Frequency	Percent
Valid	2.00	2	2.3
	3.00	21	24
	4.00	26	29.9
	5.00	24	27.4
	6.00	2	2.2
	Total	75	86.2
Total		87	100.0

The table suggests the frequency of attendance by faculty members in different activities.

Relationship among Internal Factors (Teacher Attitudes & Self-Efficacy) with Teachers' Participation in Professional Development Activities

The data was found and analyzed using SPSS's Pearson regression descriptive statistics tool in order to extract the relationship between the dependent and independent variables, with an emphasis on internal components. All of the means and standard deviations of the variables are displayed in Table 4.3. Teachers' attitudes towards TPDP exercises were quantified using a Likert scale that ranged from "strongly disagree" (1) to "strongly agree" (5) for each attitude statement. A mean score of 3.65 indicates that most of the instructors surveyed were on the fence about their feelings towards TPDP events and activities. Participants in the TPDP events exhibited a good attitude, according to the results, among the ESL professors surveyed from universities.

Table 3: Summary of Factors Mean and Standard Deviation

Variable	Mean	SD	Min	Max
Teacher attitudes	3.65	1.082	1	5
Self-efficacy	4.14	.527	1	5

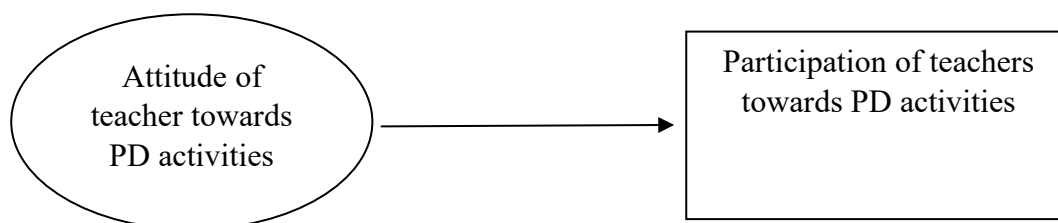
Similarly, the variable of self-efficacy is indicated in Table 3. Again, the survey questions had five choices to see the relationship. Likert scale was used to quantify the data ranging from strongly disagree (1) to strongly agree (5) on each teacher attitude statement, which had items asking for self-efficacy statements. The sampled teachers' mean

score was 4.14, indicating a response that ranged between agreed and strongly agreed. According to this research, the sampled ESL faculty members in higher education tended to have a high level of job-related self-efficacy. To find out how much teachers' views toward professional development activities and their level of self-efficacy could predict how much time they spent on these activities, a Pearson regression analysis was performed. Table 4 provides a summary of the regression data.

Table 4: Regression of Teacher Participation in TPDP Activities on Teacher Attitudes and

	B	SE	B	Sig
Intercept				
Teacher attitude	0.616	.348	1.958	.000
Self-efficacy	.15	0.421	1.001	.712

After adjusting for all other model components, the Coefficients table (Table 4) shows that although teacher attitudes are statistically significant ($p < .000$), self-efficacy is not ($p > .05$). Furthermore, the model shows a substantial correlation ($\beta = .616$, $p < .000$) between teachers' attitudes and their involvement in TPDP activities. Stated otherwise, the hypothesis is that, under the assumption that all other model parameters stay the same, the natural log of the number of activities teachers participate in will rise by 0.616 for every unit increase in teacher attitudes.



$\beta = 0.616$

Figure 1

4.1. Relationship between teachers' attitude and their participation

The findings above show that teachers' professional development attitudes and TPDP participation are positively correlated. The results demonstrate that when teachers' attitudes towards professional development in Pakistani higher education improve, they are more inclined to attend TPDP activities. Furthermore, there was no statistically significant association between teachers' self-efficacy and TPDP involvement in the results given above. This indicates that teachers' confidence in their own abilities is not a determining factor in whether or not they participate in Pakistan's Teacher Professional Development Program (TPDP).

Relationship among External Factors (Time, Funding, Principal Influence, Colleague Influence, School Culture) with Teachers' Participation in Professional

4.1.1. Development Activities

The association between external influences and instructor TPDP participation was tested using the same Likert scale. Each time statement was rated strongly disagree (1) to strongly agree (5) in the survey. The time mean for sampled teachers was 3.42, ranging from not sure to agree. This showed that Pakistani English-language higher education professors agreed that time is a vital aspect of their professional development in Turkey. The survey responses for financing statements varied from strongly disagree (1) to strongly agree (5). For funding, the instructors sampled averaged 3.45, ranging from not sure to approve. This finding showed that Pakistani English language higher education professors agreed that funding is vital for professional development. Head of department/institute impact statements received strongly disagree (1) to strongly agree (5) responses to survey questions. The mean teacher response for head influence was 3.40, ranging from not sure to agree. This indicates that English language instructors from Pakistan acknowledge that the principal's influence is an important factor in their professional growth. The survey responses for each peer impact statement varied from a rating of strongly disagree (1) to strongly agree (5). In terms of coworker influence, the teachers surveyed had an average score of 3.67, with responses ranging from uncertainty to agreement. Pakistani English language faculty members reported that the influence of their colleagues had an impact on their participation in professional development events as a general trend. The poll questions regarding the culture of the institute/university elicited responses ranging from strongly disagree (1) to strongly agree (5). The average rating for school culture among the selected instructors was 4.10, with responses ranging from uncertainty to agreement. English-language instructors in Pakistan concurred that school culture has an impact on their professional growth.

Table 5: Summary of the Factors Mean and Standard Deviation

Variable	Mean	SD	Min	Max
Time	3.42	.707	1	5
Funding	3.45	.709	1	5
Head's Influence	3.40	.785	1	5
Colleague Influence	3.67	.721	1	5
University/institute Culture	4.10	.714	1	5

The degree to which financing, head influence, colleague influence, institute/university culture, and time may all predict teachers' involvement in professional development activities was determined using a Poisson regression. The model's suitability for result prediction is demonstrated by the Omnibus Test. Put otherwise, $p < .000$ indicates statistical significance for the model.

Table 6: Omnibus test Coefficient correlation

Likelihood Ratio Chi-Square	DF	Sig
173.568	2	.000

Table 7: Regression analysis Teacher Participation in TPDP activities:

variables	B	SE	Beta	Sig
Intercept	-0.21	.1782	.915	.875
Time	.365	.0371	1.447	.000
Funding	-.137	.0281	.856	.000
Head's Influence	.049	.0314	1.045	.257
Colleague Influence	.102	.0448	1.132	.005
University Culture	.145	.0459	1.039	.009

After correcting for other variables in the regression model, coefficients (Table 7) show that time, funding, and colleague influence notably affect teachers' participation in TPDP activities ($p < .05$). University Culture showed statistical significance ($p < .09$) at a 10% significance level. After adjusting for all other variables in the regression, head influence did not significantly affect teachers' TPDP participation. Time has the strongest link with teachers' involvement in TPDP events ($\beta = .365$, $p < .000$), followed by money ($\beta = -.137$, $p < .005$), colleague influence ($\beta = .102$, $p < .005$), and university culture ($\beta = 0.145$, $p < .009$). Keeping all other model variables fixed, the natural log of instructors' behaviour is expected to increase by 0.365 one unit of time progresses. The natural log of instructors' activities is expected to drop by 0.137 as funding rises by one unit, assuming all other factors remain constant. Holding all other variables fixed, the natural log of teachers' actions is expected to rise by 0.102 when colleague influence increases by 1 unit. When colleague influence and university culture rise by one unit, the natural log of the number of activities professors participate in is projected to rise by 0.102 and 0.145, respectively, holding all other factors equal.

The results above demonstrate that instructors' time is positively correlated with their involvement in TPDP activities. This suggests that TPDP activities in Pakistani universities will see an increase in participation from faculty members as their availability for such pursuit's increases. The results also show that teachers' involvement in TPDP activities is negatively correlated with financing. Among Pakistani English language instructors at the university level, one possible explanation is that instructors value participating in TPDP events for their own professional growth more than receiving financial compensation for doing so. In addition, individuals may not see the necessity of receiving compensation for their TPDP tasks; however, they would engage in such activities whenever they are required to do so. The results presented above further demonstrate that teachers' involvement in TPDP activities is unaffected by head influence. This might be because principals don't have much sway over instructors to take part in these events because, once they obtain their Master of Professional degrees, they're basically hired for life. Furthermore, it is clear from the results of this study that there is a positive correlation between teachers' perceptions of their colleagues' support and their involvement in TPDP activities. This suggests that teachers in Pakistan are more inclined to participate in TPDP events when they feel supported by their colleagues. Lastly, the results showed that lecturers' engagement in TPDP activities is significantly impacted by university culture. Participation in such events is seen as necessary, reflecting that university and institute culture has grown more professional.

5. Conclusion

This research was carried out in Pakistan at five different universities by surveying ELT faculty members. The study took place in Karachi, a major metropolis in Pakistan. The location to conduct the research was chosen after much deliberation. Although the researcher first intended to focus on all colleges that offer professional development opportunities to their professors, he ultimately narrowed his focus to just five business colleges that make this a regular practice. This research utilized a sample of 100 faculty members from top business universities in Karachi. An easy sampling approach was employed to put the hypothesis to the test. All necessary ethical precautions were performed during data collection, and the sample size met the needs of the study. The data was gathered using a modified instrument adjusted to fit the Pakistani setting. The study supervisor gave final approval. This study makes use of a dependent variable and an independent variable. The twenty-question survey examined the effect of both internal and external variables on PFDP. We used the Pearson correlation test to examine the data. This study makes good use of a correlational research design because, as stated by Lauer (2006), correlation is a powerful tool for determining the statistical link between many variables.

After controlling for all other model parameters, the results show a statistically significant link ($p < .000$) between teachers' attitudes and their participation in professional development activities. Furthermore, the model shows a strong association ($\beta = .616$, $p < .000$) between teachers' attitudes and their participation in professional development activities. Hypothesis1. In addition, self-efficacy does not correlate with teachers' participation in professional

development activities even after controlling for all other model factors ($p > .05$). Hypothesis 2: The coefficients table (Table 4.12) shows that time, financing, and colleague influence were significantly ($p < .05$) related to teachers' involvement in professional development activities after controlling for the other factors in the regression model (H3, H4, and H6). However, H5 and H7 show that the department head's influence and the campus culture had the least effect on instructors' participation in professional development.

Although not all external factors have the same impact on teachers' engagement in professional development activities, the study finds that instructors' attitude plays a significant role. Out of the five external factors that were considered, three time, money, and colleague influence substantially impacted instructors' involvement in professional development activities. The other two influences from the head of the department and university culture had the least impact.

6. Recommendations

The following recommendations are made based on the findings of the study and conclusions.

1. It is important to promote PD activities among the teachers to enhance learning in educational institutes of Pakistan.
2. Strategies should be made to mend the teachers' attitudes and tilt their interest towards PD activities, and this can be done by providing them with attractive offers that will benefit them professionally and personally.
3. Professional Development activities largely depend upon the interest of the participant; such activities should be designed in such a way that they grab the interest of the participants.
4. Although it should be addressed, self-efficacy had no discernible impact on participation in PD activities.
5. External variables have a major influence on involvement in professional development activities, which can assist teachers become more interested in taking part in these activities.
6. Institutions should allow enough time for faculty members to engage in professional development activities; when given the opportunity, they enjoy doing so.
7. Institutes should also provide funding to their faculty members to motivate them to participate in PD activities.
8. Institutes should encourage those who participate in PD activities as the results show that colleague influence has a significant impact on participating in PD activities.

References

- Abbas, M., Tariq, S., Jamil, M. (2021). Continuous professional development (CPD) and quality education of primary school teachers: A quantitative study in Lahore, Punjab. *Global Educational Studies Review*, 6(4), 206-212.
- Abro, A., Soomro, G. R., Tevon, R. A., & Shoro, M. B. (2021). An Investigation of the Teaching Techniques, Assessment Strategies and Students' Attitude towards Reading English and their Impact on Learners' Performance in Pakistan. *Sukkur IBA Journal of Educational Sciences and Technologies*, 1(1), 1-15.
- Ahmad, N., Ali, Z., Saba, F., Yaqoob, N., & Ullah, N. (2023). Teachers' Perceived Knowledge of Self-Concept and Its Influence on Their Teaching Practices. *International Journal of Multicultural Education*, 25(2), 152-166.
- Ahmad, N., Bibi, N., & Imran, M. (2023). Effects of Teacher's Motivation on Students' Academic Performance at Public Secondary Schools in Karachi Pakistan. *AITU Scientific Research Journal*, 1(2), 20-32.
- Ahmad, N., Iqbal, S., Ali, Z., Jabeen, R., & Imran, M. (2024). Bridging the Gap: Secondary School Teachers' Perspectives on Behavioral Barriers to Academic Success. *Al-Qanṭara*, 10(2), 144-162.
- Ahmad, N., Rashid, S., & Ali, Z. (2023). Investigating primary school teachers' perceptions about professional development and its impact on students achievement. *Journal of Social Sciences Review*, 3 (1), 809-823. <https://doi.org/10.54183/jssr.v3i1.234>
- Ahmad, N., Mankash, M. A., & Sewani, R. (2024). The Dynamic Link between Teacher Effectiveness and Student Success in Secondary Education in Karachi. *Journal of Social & Organizational Matters*, 3(2), 14-26. <https://doi.org/10.56976/jsom.v3i2.61>
- Ajzen, I., & Fishbein, M. (2004). Questions raised by a reasoned action approach: comment on Ogden (2003).
- Akram, M., Ahmad, N., & Sewani, R. (2024). Comparing Special Education Teachers' Psychological Wellbeing Based on their Demographics. *International Journal of Social Science Archives*, 7(3), 23-32.
- Akram, M., Fatima, S. A., & Ahmad, N. (2024). Comparing Students' Science Motivation and their Achievement in Science Subjects at Secondary Level. *Global Social Sciences Review*, IX(II), 72-83. [https://doi.org/10.31703/gssr.2024\(IX-II\).08](https://doi.org/10.31703/gssr.2024(IX-II).08)
- Akram, M., Sewani, R., & Ahmad, N. (2024). Policy Perspective of Special Education Teachers Regarding Quality of Work Life. *Journal of Policy Research*. 10(2), 658-665. DOI: <https://doi.org/10.61506/02.00282>
- Ali, Z., Shah, R., & Ahmad, N. (2023). Determining The Science, Technology, Engineering, And Mathematics Teaching Capabilities Of Educators In Karachi, Pakistan. *Journal of Positive School Psychology*, 7(4), 11-28.
- Ali, Z., Ullah, N., Ahmad, N., Yaqoob, N., & Saba, F. (2023a). Teachers' Perceptions of Curriculum Change and the Need of Professional Development for Effective Teaching Practices. *Multicultural Education*, 9(1), 83-90.
- Ali, Z., Younis, S., Ahmad, N., Saba, F., & Ullah, N. (2023b). Teachers' Perspective of Technology Integration Effects on Students Learning At University Level. *GRADIVA*, 62(5), 29-38.

- Aamer, A., Muhammad, Y., & Masood, S. (2019). Practices of elementary school teachers for developing English language competencies among students. *Journal of Elementary Education*, 29(2), 210-222.
- Aslam, R., Iqbal, S., & Ahmed, N. (2022). Impact of Entrepreneurship Education on Students' Entrepreneurial Inclination: A Case of Public Sector Universities. *Pakistan Journal of Educational Research*, 5(1), 51–65.
- Becker, E. A., & Gibson, C. C. (1998). Fishbein and Ajzen's theory of reasoned action: Accurate prediction of behavioral intentions for enrolling in distance education courses. *Adult Education Quarterly*, 49(1), 43-55.
- Bell, B., & Gilbert, J. (2004). A model for achieving teacher development. *The Routledge Falmer reader in science education*, 258-278.
- Bubb, S., & Earley, P. (2013). The use of training days: Finding time for teachers' professional development. *Educational Research*, 55(3), 236-248.
- Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and teacher education*, 18(8), 947-967.
- Demirtas, Z. (2010). Teachers' job satisfaction levels. *Procedia-Social and Behavioral Sciences*, 9, 1069-1073.
- De Vaus, D., & de Vaus, D. (2013). *Surveys in social research*. Routledge.
- Dilshad, S. A., Shah, R., & Ahmad, N. (2023). Implementation of Single National Curriculum at Primary Level: Problems And Practices In District Khushab. *Journal of Positive School Psychology*, 7(4), 465–476.
- Ahmed, F., Muhammad, Y., & Anis, F. (2020). Developing secondary school teachers' positive attitude towards reflective teaching: A collaborative action research study. *Sir Syed Journal of Education & Social Research*, 3(4), 43-53.
- Farooqui, T., Mustafa, I., & Christie, T. (2014). Outliers in educational achievement data: Their potential for the improvement of performance. *Pakistan Journal of Statistics*, 30(1), 71.
- Flores, N., Garcia, E. S., & Edgerton, A. (2023). Authority over power in English learner accountability policies: Maintaining a national role within a context of local control. *Education Policy Analysis Archives*, 31.
- Habib, M. N., Khalil, U., Khan, Z., & Zahid, M. (2021). Sustainability in higher education: what is happening in Pakistan? *International Journal of Sustainability in Higher Education*, 22(3), 681-706.
- Haider, K., Ahmad, N., & Ali, Z. (2024). Problems and challenges faced by non-Muslim students in achieving higher education at universities of Pakistan: An evaluative study. *Spry Contemporary Educational Practices*, 3(1), 265–290. <https://doi.org/10.62681/sprypublishers.scep/3/1/15>
- Hussain, K., Abbas, M. & Jamil, M. (2021). Head teachers' training needs for quality education at secondary level. *Global Journal of Scientific and Research Publications*, 1(12), 1-9. Imran, M., Ahmad, N., Al-Harthy, A. A. Q., & Jat, Z. G. (2023). Early Identification and Intervention: Amplifying the Voice of Slow Learners. *AITU Scientific Research Journal*, 1(4), 17–25.
- Imran, M., & Akhtar, N. (2023). Impact of Ethical Leadership Practices on Teachers' Psychological Safety and Performance: A Case of Primary School Heads in Karachi-Pakistan. *Academy of Education and Social Sciences Review*, 3(2), 172-181. <https://doi.org/10.48112/aessr.v3i2.505>
- Jabeen, M., Ali, Z., & Ahmad, N. (2023). Factor Effecting on Quality Teaching Learning at Public Sector Schools in Karachi Pakistan. *Journal of Educational Research and Social Sciences Review (JERSSR)*, 3(1), 92–98.
- Jahangeer, M., & Muneer, R. (2023). Impact of Using Digital Resources: One of the E-reforms by HEC on Enhancement of Quality of Social Researches at Postgraduate Level in Public and Private Universities in Sindh. *Voyage Journal of Educational Studies*, 3(2), 347-363.
- Jamil, M., Anwar, M., & Ali, M. J. (2024). Developing critical thinking skills in English classrooms at the secondary level: Teachers' perspective. *Journal of Social Sciences Development*, 3(1), 76-85.
- Jamil, M., Aslam, M., & Ali, S. (2024). Single National Curriculum (SNC) for Social Studies (2020): Document analysis for development of critical thinking skills at the primary level. *Pakistan Journal of Law, Analysis and Wisdom*, 3(2), 67-74.
- Jamil, M., Hafeez, F. A., & Muhammad, N. (2024). Critical thinking development for 21st century: Analysis of Physics curriculum. *Journal of Social & Organizational Matters*, 3(1), 1-10.
- Jamil, M., Mehmood, W., & Noorani, Z. (2024). An Analysis of Physics Textbook Grade X for Critical Thinking Skills Development. *Pakistan Journal of Law, Analysis and Wisdom*, 3(4), 39-47.
- Jamil, M., Mehmood, W., & Saleem, A. (2024). Biology textbook grade X (2020): Analysis for the development of higher order thinking skills among secondary school science students. *Global Regional Review (GRR)*, 9(1), 29-35.
- Jamil, M., Mehmood, W., & Shah, F. u. H. (2024). Development of critical thinking skills among secondary school science students: An analysis of Chemistry textbook grade IX (2020). *Global Educational Studies Review*, 9(1), 13-20.
- Jamil, M., Muhammad, N., & Aslam, M. (2024). Critical thinking skills development: An analysis of mathematics curriculum 2006 (Grade-wise). *Global Social Sciences Review*, 9(1), 22-29.
- Jamil, M., & Muhammad, Y. (2019). Teaching science students to think critically: Understanding secondary school teachers' practices. *Journal of Research & Reflections in Education (JRRE)*, 13(2), 256-272.
- Jamil, M., Muhammad, Y., & Qureshi, N. (2021a). Critical thinking skills development: Secondary school science teachers' perceptions and practices. *Sir Syed Journal of Education & Social Research (SJESR)*, 4(2), 21-30.

- Jamil, M., Muhammad, Y., & Qureshi, N. (2021b). Secondary School Science Teachers' Practices for the Development of Critical Thinking Skills: An Observational Study. *Journal of Development and Social Sciences*, 2(4), 259-265.
- Junejo, I., Memon, A. K., & Mohammad, J. (2018). Current Practices in Higher Education Institutes Pakistan and Gap Reduction between Industry and Academia: A Systematic Literature Review Approach. *Asian Journal of Contemporary Education*, 2(2), 173-181.
- Karanja, D. (2019). Role of Information Communication Technology in Literacy Education in Kenya. *The Cradle of Knowledge: African Journal of Educational and Social Science Research*, 7(3), 103-110.
- Khan, N., Lateef, A., & Sheikh, M. S. K. (2023). Comparison of Assessment Practices in Public and Private Universities at Post-Graduate Level. *Research Journal of Social Sciences and Economics Review*, 4(2), 101-107.
- Lauer, C. (2006). *Education and labour market outcomes: a French-German comparison* (Vol. 30). Springer Science & Business Media.
- McCamey, R. B. (2003). A study of reasons for participation in continuing professional education in the US nuclear power industry. *Performance Improvement Quarterly*, 16(3), 31-45.
- Muhammad, Y., & Brett, P. (2019). Addressing social justice and cultural identity in Pakistani education: A qualitative content analysis of curriculum policy. *Education, ethnicity and equity in the multilingual Asian context*, 235-253.
- Naeem, S., Ali, Z., & Ahmed, N. (2022). Evaluation of the Causes of Interest Decline in the Subject of Chemistry amongst Secondary and Higher Secondary School Students in Karachi Pakistan. *International Journal of Social Science & Entrepreneurship*, 2(2), 175-184. <https://doi.org/10.58661/ijssse.v2i2.48>
- Naseer, H., Muhammad, Y., & Jamil, M. (2022). Critical thinking skills in Pakistan Studies textbook: Qualitative content analysis. *Pakistan Journal of Social Research*, 4(3), 744-755.
- Nawab, A. (2023). Using action research to initiate school-based teacher development activities: insights from Northern Sindh, Pakistan. *Educational Action Research*, 31(2), 285-305.
- O'Leary, M., Cui, V., Kiem, M. T., Dang, D. T., Nguyen, G. T. H., & Thi Hoang, K. H. (2023). The role of classroom observation in the development and assessment of schoolteachers in Vietnam: a review of national policy and research. *Asia-Pacific Journal of Teacher Education*, 1-13.
- Phulpoto, S. A. J., Oad, L., & Imran, M. (2024). Enhancing Teacher Performance in E-Learning: Addressing Barriers and Promoting Sustainable Education in Public Universities of Pakistan. *Pakistan Languages and Humanities Review*, 8(1), 418-429. [https://doi.org/10.47205/plhr.2024\(8-1\)38](https://doi.org/10.47205/plhr.2024(8-1)38)
- Saban, A. (2000). Professional Growth Through Self-Reflection and Writing. *Education*, 120(3).
- Sarfraz, S., Mansoor, Z., & Tariq, U. (2023). Analysis of the English Language Teachers' Constraints in Implementing Outcome-Based Educational Approach for Engineering Students. *Multicultural Education*, 9(3).
- Shah, S. G. M., Ali, Z., & Ahmad, N. (2024). Analytical study of Awareness of Metacognitive Reading Strategies and Reading Comprehension among College Students. *Voyage Journal of Educational Studies*, 4(1), 34-46. <https://doi.org/10.58622/vjes.v4i1.120>
- Thomas, M., Khan, A. H., & Ahmad, N. (2022). Way forward for post pandemic online teaching: A case of higher education in Pakistan. *Journal of Humanities, Social and Management Sciences (JHSMS)*, 3(1), 1-15. <https://doi.org/10.47264/idea.jhsms/3.1.1>
- Wolf, M. K. (2022). Interconnection between constructs and consequences: a key validity consideration in K-12 English language proficiency assessments. *Language Testing in Asia*, 12(1), 44.
- Yasmin, M., & Naseem, F. (2019). Collaborative learning and learner autonomy: Beliefs, practices and prospects in Pakistani engineering universities. *iee Access*, 7, 71493-71499. <https://doi.org/10.1109/ACCESS.2019.2914999>