

Role of Technology Integration in Professional Growth Among Female Teachers in Private Secondary Schools of Karachi: A Phenomenological Study

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Abstract

This study seeks to understand the role of technology integration in the professional growth of female teachers in private schools in the city of Karachi by exploring their lived experiences, perceptions and meaning related to the use of digital tools in their professional lives. A phenomenological research design was used in this study to examine how female teachers in private secondary schools of Karachi address professional growth through technology integration. Semi-structured interviews were conducted through a purposive sampling technique with 6 female secondary teachers. In order to achieve a more insight into the perception of participation, data were analyzed with Braun and Clarke's six-phase thematic analysis. The results showed four interdependent themes, such as lived tensions in technology integration and undermining forces on professional identity. The research paper emphasizes the role of technology integration, infrastructure, and professional growth of female teachers. This paper contributes to the limited qualitative research on gendered experiences of teaching in the Pakistani Private education system by giving a voice to female teachers in the context of South Asia. To ensure that female teachers can work in sustainable professional environments, the findings offer practical implications for policy-makers, gender-responsive leadership and the teacher support system.

Keywords: Female Teachers, Private Secondary School, Professional Growth, Technology Integration, Technostress.



Introduction

The Karachi private secondary school system has more than 70% of its teaching workforce as females and the teachers play a significant role in defining student performance in a city where secondary education is predominantly provided by the private sector (Pakistan Bureau of Statistics, 2023). Ideally, female teachers would be able to use professional development (PD) programs, to incorporate digital tools into their work in the most effortless way (Ahmed, 2023). However, reality is otherwise (Azhar & Imran, 2024). Female teachers in private secondary schools of Karachi have to deal with a combination of two competing demands: professional growth standards and learning technology demands (Ahmed, & Imran, 2024). These pressures were increased during the COVID-19 pandemic. Female teachers experienced a hastened digitalization, the demands of online teaching, and technostress without the training and proper institutional support (Ahmed, 2024).

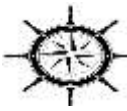
Along with that, the expectations of a patriarch meant that they were mostly caregivers, further limiting their professional growth (Harsharani & Silimiya, 2025). This results in job dissatisfaction, lack of career development, and turnover that compromises the quality and sustainability of education in the private school sector. Despite previous studies that have explored the factors of technostress and professional growth in isolation, little is known about how these factors interact to determine the experiences of female teachers in Karachi. Technostress studies indicate the effects of digital overloading and mental strain of teaching online (Shaukat et al., 2022). The study regarding professional growth, meanwhile, shows that professional development programs are not only frequently fragmentary and contextually marginal but also unable to address systematic constraints (Fernandes & Pate, 2024). However, the holistic experience of how female teachers give meaning to coping with conflicting demands is an unexplored aspect. This gap is intended to be filled in this study, where a phenomenological approach is used to investigate how female teachers in Karachi private secondary schools cope with the challenges of professional growth and the use of technology.

Research Objectives

1. To assess the perception of the female teachers of secondary private school teachers regarding professional growth.
2. To examine the role of technology integration in the professional growth of female teachers of private secondary schools.

Research Questions

1. How do female teachers of private secondary schools perceive professional growth?
2. What does technology adoption play a role in the professional growth of female teachers in private secondary schools?



Literature Review

Professional Growth and Career Development

Professional growth is widely recognized as one of the foundations of teacher effectiveness, professional growth, and pedagogical reformation (Guskey, 2002). Professional growth opportunities that are sustained over long periods, collaborative, curriculum-connected, and based on active learning are the ones that have been demonstrated to enhance the quality of instruction, reflective practice, and teacher confidence (Darling-Hammond et al., 2017). However, access to and practice of meaningful professional growth vary within contexts, and elements of this approach that involve female educators in private schools often encounter some limitations (Ahmad, et al., 2024). The study conducted by Harsharani & Silimiya (2025) demonstrates that professional development programs in the context of private schools are usually focused on procedural-based knowledge.

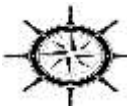
Professional growth in Pakistan is generally more focused on acquiring technical knowledge and the suppression of its practical implementation, limiting the opportunities of teachers to apply new knowledge in meaningful practice (Safdar et al., 2025). In the case of female teachers who have various duties, these gaps are even greater, and professional growth can be seen as a burden instead of a development facilitator (Shaukat et al., 2022).

According to Puri et al (2024) another aspect of professional growth is the dependency of informal learning and peer support as compensatory measures in Pakistan. Without systematic institutional professional growth, teachers have to rely on their colleagues, distribute resources and improve by trial and error (Imran, Zaidi, & Rehan, 2024). Although self-directed learning and collegial networks have the potential to develop reflective practice and peer mentorship, they are imbalanced and reliant on individual effort, but not supported by a structural organization (Nawab, 2012). The lack of institutional flexibility also contributes to this problem with schools rarely offering alternative arrangements of scheduling that would enable full participation of female teachers (Bukhari et al., 2025).

Fernandes & Pate (2024) provide a slightly different picture of the importance of leadership and mentoring. Professional confidence and resiliency among female teachers is more apparent in those situations when school leaders are aware to establish collaborative conditions of professional growth (Sultana, Ahmed, & Imran, 2024). In particular, mentoring turns out a major facilitator that, besides assisting teachers in processing new learning, offers social support that mitigates the impact of systemic biases constraints (Mori, 2024). Although professional growth can potentially improve the quality of instruction and teacher agency, in practice, it tends to be incompatible with the professional and personal lives of female teachers in Karachi's private schools. Scheduling conflicts, restrictive program planning, absent institutional backing and other factors that impede the transformational potential of professional growth (Avalos, 2011).

Technostress, Technology Adoption, and Digital Pedagogies

Integration of technology in education has been boosted across the world and has changed the



usual pedagogical boundaries, providing students with new opportunities for engagement. The Technological Pedagogical Content Knowledge (TPACK) model by Mishra and Koehler (2006) stresses that teachers should utilize technology in a manner that has significant meaning to not only the content and pedagogy but also the learning outcomes. Studies around the world show that the effective application of digital tools can increase student interest, facilitate differentiated instruction and offer students new formative assessment opportunities (Mishra & Koehler, 2006). However, this integration is uneven and frequently comes at a price that is technostress, the mental tension educators experience when they are asked to adopt technologies without proper training, assistance or infrastructure (Tarafdar et al., 2011). Teachers in Pakistan were highly stressed because of sudden expectations to teach online courses, switch to new digital platforms, and control behavior in the digital classroom after the COVID-19 pandemic without proper training or the support of the school (Shaukat et al., 2022).

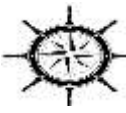
Despite being a necessity, the use of technologies placed constant pressure on educators who lacked previous training and the confidence to work with digital tools (Khosro, et al., 2024). Teachers expressed anxiety, frustration and overload navigating learning management systems (LMS), virtual classroom (Zoom) and digital assessment tools, especially where the technologies were not supported by reliable internet and hardware (Ahmed, 2024). The technostress influences the quality of technical competency of teachers and their comfort level regarding digital tools (Rehan, et al., 2024). According to U. Ahmed (2024), peer collaboration and self-directed learning are identified as the coping responses to overcome technostress. Moreover, as Safdar et al (2025) suggest, the integration of technology in the classroom cannot be viewed as the implementation of a single tool (additive). In the absence of this contextualization, technology adoption will be superficial and will result in cognitive dissonance and stress instead of meaningful innovation.

In Middle Eastern settings, such as in the study by Alshammari & Alshammari (2024)

female teachers reported having high levels of technostress, which were explained by institutional demands and the lack of professional development infrastructure, but reduced stress levels were observed in the presence of policies related to leadership support (Shah, et al., 2025; Imran, et al., 2023). European and Western nations have managed to introduce a number of digital literacy initiatives and professional advancements, which can assist educators to feel less techno-stressed and show how supportive structures can improve pedagogical results (Stringer et al., 2025). The collective effect of the literature indicates that the use of technology presents an opportunity and a stress to female teachers. Despite the possibilities of tools to enrich pedagogy, poor training, institutional reinforcement, and sociocultural conflict are obstacles to effective teaching, and that is why the endless stress of professional life persists.

Resilience and Support Mechanisms in Digital Teaching

According to the Azhar, Iqbal and Imran (2025) another strength of the resilience mechanism is peer support and mentoring. A network of colleagues, informal mentoring and problem-solving contribute to tackling professional issues by female teachers. The support structures not only offer



technical assistance but also give it emotional validation, eliminating the sense of isolation and stress (Fernandes & Pate, 2024).

The lack of equal access to support whether it be familial, institutional or peer based introduces additional disparities to female teachers (Mohammad, et al., 2024). Individuals who have supportive school leadership have better chances of thriving, but others are susceptible to burnout, role overload and professional disillusionment (Safdar et al., 2025). The sources pinpoint technostress as being quite high among the employees, with the lack of institutional support and the need to pursue personalized learning off-the-record after working hours as a regular occurrence often described by female educators (La Torre et al., 2020).

According to Selwyn (2022) the use of technology in education is not a neutral phenomenon; it refers to power relations, visibility, and surveillance. Digital devices increase stress in female teachers working in conservative settings where teachers are more visible and subject to higher scrutiny. Research also brings out the psychological effects of long-term role strain. Those teachers who constantly bargain without systematic backup receive more stress, lower job satisfaction, and lower professional identity (Kyriacou, 2001). The organizational impacts of these issues are the teacher retention, the instructional quality, and student engagement.

Synthesis and Research Gap

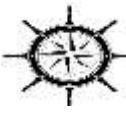
Among the existing literature, the following strands are interrelated with each other:

1. The institutional and practical constraints are also critical and limit the professional growth (Yulin & Danso, 2025).
2. Technological use though promising pedagogical benefits, often creates stress unless there is proper training and provision of the infrastructure (Yang et al., 2025).

Although much study has been done focusing on each of the strands separately, there remains a notable gap of an integrated, phenomenological research in understanding how female teachers in settings such as Karachi interact with and interpret the convergence of technology with professional development. This research fills the gap by foregrounding the voices of female teachers, not only by looking at what it is they encounter, but in understanding, negotiating, and attributing meaning to these lived experiences. By thus providing an overview, it transcends the descriptive analyses to the understanding of the relationship between teacher identity and resilience in the shaping of professional life.

Research Methodology

The qualitative phenomenological research design was applied to examine the lived experiences of the female teachers (FTs) working in the private secondary schools of Karachi, particularly the ways IT can be integrated and enabled to help them facilitate professional growth. According to Creswell (2013), interpretive phenomenology offers the framework of knowing subjective experience of people and concerns itself with perception, emotion, and interpretation of phenomena of everyday life. This approach is particularly appropriate to study the



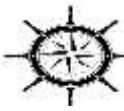
multidimensional and contextual experiences when the institutional frameworks intersect with professional growth.

The target population was full-time female teachers of Karachi-based private secondary schools and posed special challenges in terms of resources, professional demands and technology integration. Purposive sampling has been used to select the most informed and willing participants in the study who can give comprehensive information regarding the phenomenon under study (Creswell, 2013; Etikan, 2016).

The criteria used to include the participants were that they possess a minimum of three years of teaching experience, be engaged in professional development activities, and most importantly they must use educational technology in their teaching practice. The exclusion criteria were part-time teachers, administrative employees, and teachers having less than three years of experience. A sample size of six was chosen, which is adequate to conduct a phenomenological study that is not based on generalizability but on the depth of lived experiences. The level of data saturation was attained at the 5th interview and confirmed with 6th interview when no additional theme was generated by the interviews.

Semi-structured interviews were conducted as a source of data collection, which gave the respondents the chance to describe their lived experience in detail and the flexibility to address the emerging issues. The interview guide had open-ended questions to extract narratives on professional growth and use of technology such as: How does technology integration influence your professional growth? What role does institutional support and training play in your professional growth using technology? The interviews lasted between 30 and 40 minutes and were administered either in-person in the schools or online using Google Meet and WhatsApp in English and Urdu, as per the convenience of the participants. All the interviews were recorded on audio and transcribed word-for-word to guarantee truthfulness and loyalty to the experiences of the interviewees.

Data were analyzed using thematic analysis, which is a six-step method by (Braun & Clarke, 2006). This included a preliminary familiarization of the transcripts, coding of meaningful statements systematically, cluster coding of codes into sub-themes, and the formation of general themes in accordance with the objectives of the research. It involved a focus on the inductive approach that enabled the themes to be developed by the data in an organic manner, with regard to preserving the sensitivity of the phenomenological theme of the lived experience. Memos of reflexivity were kept in the process of analysis in order to record interpretive choices and promote transparency. The credibility was established by using various methods, among which is the long-term interaction with participants, member checks of transcripts, and the thorough description of the analytic process. The participants were given detailed information on the study objectives, voluntary participation, confidentiality, the right to withdraw at any point and steps towards ensuring safe storage of data. This methodological approach enabled a subtle comprehension of how female teachers in Karachi negotiate professional growth and technology adoption. The study provides an addition to knowledge on gender-sensitive professional growth and



developmental opportunities, institutional support systems, and strategies to enhance teacher well-being and professional identity in urban private school settings. The methodology is also a direct response to all research questions: the narratives of participants are focused on the meaning of balancing technology, professional growth, and the obstacles affecting the professional identity.

Findings and Discussion

This study has explored the life of female teachers in Karachi private secondary schools in relation to their profession development and integration of technology. The semi-structured interviews carried out with six teachers (P1-P6) revealed that there is an interrelated complexity between personal agency and institutional demands. The results were grouped into four themes that are interconnected, each with several sub-themes. The sustainability of professional practice, identity, and agency of the teacher are highlighted. The findings have been categorized into four themes that are linked to each other and have a number of sub-themes that together depict the dynamism of the lived experiences of teachers.

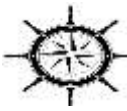
These topics highlight the key importance of teacher agency as a means of coping with the structural limitations, adjusting to the technological demands, and maintaining professional loyalty in the long term. Moreover, the results indicate that professional growth is not an individual task but heavily contributes to the support of the institution and emotional health. On the whole, the article highlights the significance of teacher identity and teacher well-being as significantly important factors to the sustainability of professional practice in complex situations with education.

Figure 01

Theme 1 (Themes, sub-themes and codes are derived on perceptions of the participants.)

Theme 1: Perceived Affordances of Professional Growth





Training and Workshops

Personal validation, skills acquisition, and reflection were most effectively achieved through professional growth. Teachers emphasized that systematic workshops supported the development of the existing competencies and showed new pedagogical methods. P2 shared, “Alhamdulillah, during my training session, I noticed that I already knew many things that they were teaching,” which showed that workshops enhanced confidence and professional self-efficacy.

P1 focused on the holistic advantages of professional growth: “Professional development training... time management, communication skills, teamwork”, which pointed to the fact that learning did not just focus on technical knowledge of the subject, it broadened to include other parts of professional skills. Teachers explained professional growth as inspirational and transformative. P6 also commented that “training workshops showed me that there is no limit to learning and that being a teacher is a life-long process.”

The data is consistent with (Day & Gu, 2014), who state that when a teacher is provided with structured professional learning, the confidence, motivation, and pedagogical legitimacy are likely to increase. Peer interaction and collaborative learning in workshops also enabled teachers to share experiences, solve classroom problems, and have exposure to innovative teaching methods.

Skill Enhancement and Teaching Strategies

The principle of reflective practice was also achieved in professional growth through the iterative classroom practice (Schön, 2017). Continuous adaptation of teaching strategies and lesson planning was described by teachers as a part of their professional development. P2 shared, “With time, I got a lot of improvement... I changed the strategies of teaching.” P5 described the incremental process of skill acquisition: “Every class teaches me something new, I learn a lot from my students, even if it was just handling students differently during substitute class.”

The reflections of the teachers imply that growth is in experience, where teachers respond to the needs of the students by applying new assessment measures, as well as improving the classroom management strategies. One of the teachers emphasized, adaptation of international assessment standards after getting training for O-Level students. These results indicate that professional growth requires systematic workshops in addition to practical learning, which strengthens the level of competence and confidence of teachers in their practices.

Leadership Roles

Leadership experiences were seen to be empowering and challenging. Leadership experiences were seen to be empowering and challenging. Leadership opportunities such as section heads, coordinators and organizers of activities, made teachers feel proud of leadership position and offered them a chance to influence institutional practices.

P3 stated, “I resigned as a section head because my home was disturbed.” Similarly reflected by other teachers since the leadership positions almost inevitably involve personal sacrifices and compromise between career and home life, so they have to prioritize their home. These narratives

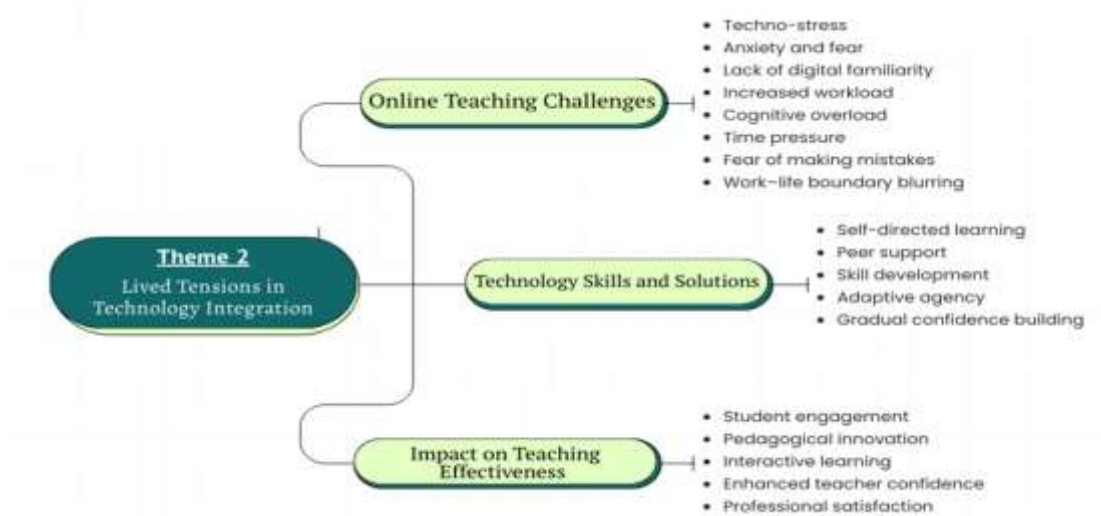
prove that the concept of leadership is connected with different expectations and determines the professional paths of female teachers. This corresponds with Day & Leitch (2001), who stated that professional identities are jointly formed in the institutional level, where ambition obligations have to be negotiated.

Together, Theme 1 suggests that the process of professional growth among female teachers is a complex and dynamic interaction of formal learning, reflective practice and leadership experiences that will depend on contextual phenomena such as institutional support.

Figure 2

Theme 2 (Themes, sub-themes and codes are derived on perceptions of the participants.)

Theme 2: Lived Tensions in Technology Integration

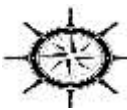


Online Teaching Challenges

The COVID-19 pandemic increased the adoption of digital resources, which has caused a source of stress and transformative learning opportunities for teachers (Oad, et al., 2024; Imran & Akhtar, 2023). According to teachers' responses, they felt techno-stressed, anxious, and did not know how to use new digital tools like Zoom and Learning Management Systems (LMS).

P4 shared, “During lockdown, when we were taking classes online Zoom, I was scared of Zoom classes. I was not familiar with it” while P1 recalled, “Start mai there was a 90-degree change. Urdu typing or paper compose karna meray liye buht mushkil tha.” P6 indirectly commented about the steep learning curve: “in the beginning, technology was overwhelming, I was aware that I had to adjust to keep on teaching effectively.”

These are related to Sharma & Yadav (2025), which reveal that the rapidly evolving technology is associated with an increased cognitive load, emotional strain, and workload. Teachers had to contend with dual challenge of addressing synchronous teaching and grading and student engagement, in addition to learning how to use digital tools in the first place.



Technology Skills and Solutions

To become technologically proficient and cope with the requirements of digital teaching, teachers have taken proactive measures. P1 described it by saying, “mai ny different courses kiye or typing or Microsoft files par kaam karna seekha.” P4 explained that “young teachers in my section assisted me in overcoming this fear of technology, they encouraged me that I too could do it”, as other teachers stressed upon operative self-directed learning, peer-collaboration, and constant skill improvement. These strategies reveal flexible agency, which shows teachers being willing to sustain the quality of instruction despite the pressures of the technology. This is the same strategy as the Technological Pedagogical Content Knowledge (TPACK) model (Mishra & Koehler, 2006), which points out that the success of technology integration depends on a balanced mix of content knowledge, pedagogical knowledge and technical competency.

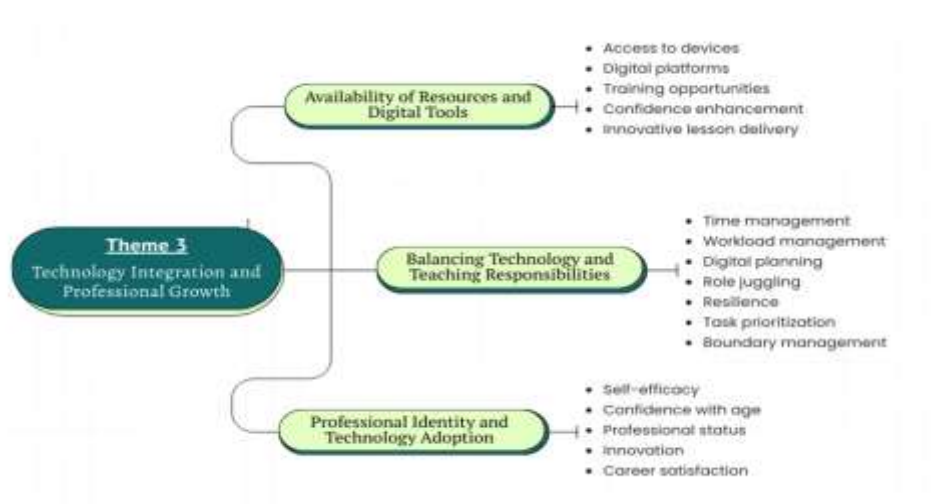
Impact on Teaching Effectiveness

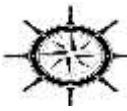
Technology proved to be a strong facilitator of pedagogical innovation once the digital skills were acquired. P1 stated, “When I teach through multimedia presentations to children, they become happy. Instead of teaching in the old pattern, when my students get change, they give a good response”. P4 said, I use new software myself, and when it is beneficial to students, I recommend it. Learning chemistry is like a game, as revealed in these narrations, with the initial levels of stress, integration of technology enhanced teacher agency, interaction in classrooms and general level of professional satisfaction. The outcomes are in line with the findings of Ertmer and Ottenbreit-Leftwich (2010), on the idea that technology enhances the quality of instruction when teachers are well trained, supported by an institution and have time to adapt it. Technology, therefore, became a challenge and a key opportunity to grow and refine pedagogical practice.

Figure 3:

Theme 3 (Themes, sub-themes and codes are derived on perceptions of the participants.)

Theme 3: Technology Integration and Professional Growth





Availability of Resources and Digital Tools

Availability of digital resources, platforms as well as training proved to be critical in the professional growth of teachers. One of the teachers said that “in my schools, there was a shortage of devices, still it’s the same, sometimes I have to carry out lessons using paper and whiteboard, which is not engaging to students and gives a tough time to manage”. P5 commented on this that “I found it difficult to develop digital lesson plans, but as I got to know such tools, it worked to increase my teaching ability and I became more confident in it.” These experiences emphasise the fact that access to online tools and systematic training is one of the significant facilitators of professional growth.

The teachers who had access to the online platforms referenced that they had more dynamic delivery of lessons as well as increased student involvement and more chances to explore innovative teaching strategies. Moreover, the experience with technology promoted the continuous learning process and professional experimentation that provided female educators with the opportunity to enrich the scope of their pedagogical practices and stay flexible in the field of education that undergoes a rapid change (Heine et al., 2023).

Balancing between Technology use and Teaching Responsibilities.

Use of technology in teaching made it possible to create opportunities and challenges in day-to-day teaching activities. Teachers shared their experience about the process of managing online classes during and post-COVID time period, marking online tasks, and controlling student interaction simultaneously. P3 described: “I needed to organize online classes in real time, mark assignments, and make sure every student comprehended the lesson, and it was too much at the beginning.”

P2 stated, “I had to create interactive materials and monitor the progress of students online, even after working long hours, which also needed some planning and time management.” These accounts show that both roles of technology and teaching are two-fold with a unique view that managing digital tools is not only technical, but also strategic. The capacity of teachers to juggle between preparing digital material, offline classes, duties, and so forth shows the skill of resilience, flexible ability, and prioritization.

The ability to achieve this balance is not only a way of maintaining performance in the classroom, but also it promotes personal growth through improved efficiency in the workflow, digital literacy, and ability to solve problems (Santagata et al., 2024).

Professional Identity and Technology Adoption

The experiences with technology were the most significant factors that affected the professional identity of teachers and their confidence. P3 shared that “as I’m in my old age, I was very afraid to use digital tools, but as time passed by, now it has become part of my daily routine, ab mujhy maza ata hai to use it.” Another common one was that now use of technology made us feel that we can teach and assess using new software and increase my professional status among peers. These

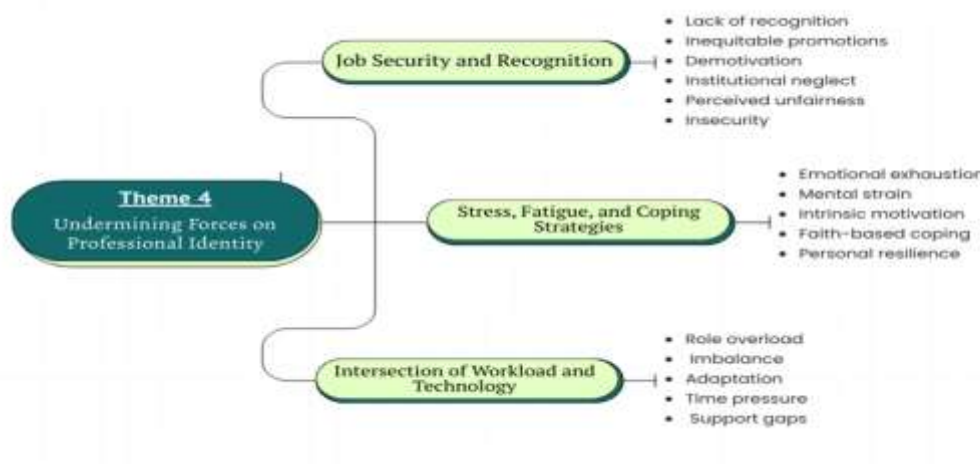
stories indicate that the adoption of technology helps in professional self-efficacy, innovation and career development.

Negotiation of learning new tools, institutional expectations, and student engagement are done together by teachers, something that proves technology is not a teaching tool but a driving force in the development of a professional. The incorporation of digital tools can help to attain reflective teaching practices, learn more about new approaches to teaching, and have leadership opportunities. Teachers who adopted technology among other female teachers have cited confidence, positive classroom achievements, and career satisfaction, a fact that promotes the relationship between digital competence and professional identity (Rosdi et al., 2020).

Figure 1

Theme 4 (Themes, sub-themes and codes are derived on perceptions of the participants.)

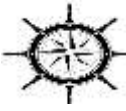
Theme 4: Undermining Forces on Professional Identity



Job Security and Recognition

The teachers indicated that they were persistent in job insecurity and lack of professional recognition, despite several decades of experience. P5 reflected, “Even after 30 years of serving, job security is very low,” which underlines the fact that tenure did not always mean stability and recognition. “Those who do not deserve... getting promotions” frustration shared by a P2 at the inequities in professional acknowledgments.

P4 shared the demotivating effect of such circumstances: “Recognition was rare, even when I invested extra effort.” These experiences point to the fact that the absence of official recognition can destroy professional morale, lower motivation, and affect self-perception of a teacher. These stories speak volumes about how institutional setups often do not appreciate dedication, skill, or experience which can make school teachers feel undervalued despite making a major contribution to student outcomes and school functioning (Sun et al., 2022). Formal and informal recognition turns out to be a significant element of maintaining professional identity and engagement on a long-term basis.



Stress, Fatigue, and Coping Strategies

Combined workload due to teaching activities and technological duties created physical exhaustion, emotional strain and intermittent withdrawal. P6 shared, “at times the profession impacts the family and mental health, and at other times it's vice versa,” a symptom of chronic fatigue caused by the constant multitasking. Emotionally drained, but I remind myself why this was the reason I wanted to be a teacher was an indirect quote that indicated dependence on intrinsic motivation.

Strategic prioritization, self-reliance, and faith-based resilience were some of the coping strategies that teachers utilized and enabling them to sustain professional engagement and personal well-being. The strategies highlight the idea that though teachers exhibit exceptional agency in the face of stress, they are also working in a place of institutional low support, which may lead to burnout and decline in job satisfaction (Kyriacou, 2001). Findings indicate that effective coping is necessary to both sustain day-to-day functioning and the retention of long-term professional identity.

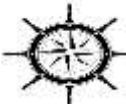
Intersection of Workload and Technology

The combination of teaching duties and digital adaptation increased the level of stress in teachers. One teacher reported that she had difficulties when it comes to balancing online grading and classroom preparation with other work. Others stated that they to make sure that at home and at school, all the tasks have to be completed. To resolve crossing roles, teachers reported the necessity of constant adaptation, time management and priority setting.

The narratives point out that technological integration is a positive factor in pedagogy, yet contributes to the complexity of the professional position and may cause overstrain on well-being without the support of institutions. It shows a resilience of teachers to continue acting on a professional level in spite of these pressures, but also indicates structural voids in support mechanisms. Maintaining professional identity and well-being in this kind of situation demands continuous negotiation, self-discipline, and individual commitment, and it is indicative of the complex nature of the issue that female teachers struggle with to manage both professional and personal demands (Shaukat et al., 2022).

Discussion and Conclusion

In this paper, the lived experiences of female teachers in Karachi private secondary schools were discussed in relation to how professional development and integration of technology interact. The results indicate that professional growth is a factor that empowers and brings stress to the teachers, as the female teachers negotiate career development and many other responsibilities. Technology proves to be a two-sided tool where it generates anxiety and technostress, eventually leading to pedagogical creativity, student motivation and professional confidence in cases where teachers practice resiliently and self-directed in learning. Family demands influence the agency of teachers greatly, hindering their engagement in leadership and professional growth, and systemic factors such as job insecurity and professional lack of professional recognition have a detrimental effect



on wellness and professionalism. Even in the face of these difficulties, adaptive teaching, time management, self-reliance, and faith-based coping strategies serve the purpose of resilience by teachers. As highlighted by these findings, it is important to establish technologically supportive, and attentive to the gendered reality of female teachers, institutional policies and professional development programs to maintain their level of engagement, effectiveness, and well-being in the profession.

Recommendations

For Administrators and Schools

1. Offer continuous training and technological infrastructure so as to alleviate technostress and facilitate the significant incorporation of digital tools to pedagogy.
2. Appreciate and acknowledge the contribution of teachers both formally and informally to improve motivation, professional identity and job satisfaction.
3. To ensure that teachers are not frustrated by technical complications, the digital coordinators or specific technical staff members should be available to support them.

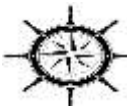
For Policy Makers

1. Policymakers should facilitate subsidized internet access, digital devices or teacher training grants especially in the under-resource privatized schools.
2. Transparent hiring, promotion, and appraisal of policies must be recommended in order to diminish job insecurity and increase professional acknowledgment among teachers.

For Future Researchers

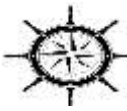
1. Carry out longitudinal research to determine the effect of coping strategies and level of engagement in professional growth by teachers and integration of technology across several years.
2. Apply mixed-method research which integrates quality data and quantitative data of technostress, self-efficacy, and work-life balance to offer more holistic evidence.
3. Increase the sample size and the variety of the participants by incorporating male educators, remote schools and other such institutions to study the gendered and contextual differences in the experiences.
4. Incorporate the classroom observations and interviews as a means of intensifying the comprehension of how institutional aspects influence teaching practices.

The following recommendations seek to promote sustainable professional settings, teacher well-being, and create gender-sensitive teaching methods that meet the needs of female teachers within the Pakistani setting of a private sector school.



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