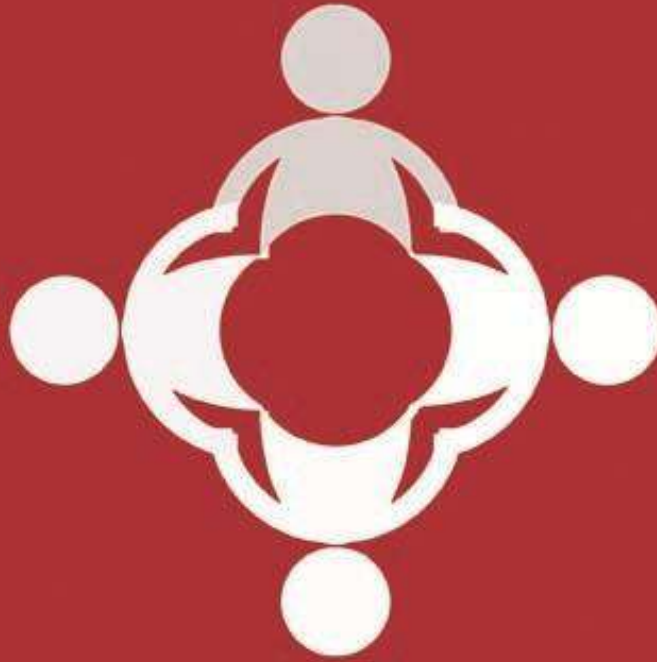


ISSN: 1300-7432

TIJSEG Turkish International Journal of Special Education and Guidance & Counselling



Turkish International Journal of Special Education and Guidance & Counseling

Volume 14 Issue 2

Turkish International Journal of Special Education and Guidance & Counselling

ISSN: 1300-7432

DECEMBER 2025

Volume 14 - Issue 2

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I am very pleased to publish second issue in 2025. As an editor of Turkish International Journal of Special Education and Guidance & Counselling (TIJSEG) this issue is the success of the reviewers, editorial board and the researchers. In this respect, I would like to thank to all reviewers, researchers and the editorial board. The articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to Turkish International Journal of Special Education and Guidance & Counselling (TIJSEG), For any suggestions and comments on TIJSEG, please do not hesitate to send mail. The countries of the authors contributed to this issue (in alphabetical order): Bangladesh, Nigeria, and Türkiye.

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Vol 14, No 2 (2025)

Table of Contents

Research Articles

Message from the Editor

Prof.Dr. M Engin Deniz (Editor in Chief)

PREDICTORS OF QUIET-QUITTING BEHAVIOURS AMONG NON TEACHING STAFF OF TERTIARY INSTITUTIONS IN OYO

Victor Ayodeji FEHINTOLA

146-158

METACOGNITIVE STRATEGIES OF PROSPECTIVE PSYCHOLOGICAL COUNSELORS IN THE CONTEXT OF SCHOOL GUIDANCE PRACTICES

Betül ALTAY ÖZTÜRK

159-193

EXPLORING THE CHALLENGES AND COPING STRATEGIES OF SPECIAL EDUCATION TEACHERS IN BANGLADESH

Khan Rashedul Islam RASHED, Rubaiya SHARMIN, Karar Istiak ANAM

194-209

INCLUSIVE ENGLISH LANGUAGE EDUCATION: CHALLENGES, INNOVATIONS, AND FUTURE DIRECTIONS FOR SPECIAL EDUCATIONAL NEEDS (SEN) STUDENTS

Halil SARI

210-229

UNCOVERING THE IMPACT OF SCIENCE LAB ACTIVITIES ON ELEMENTARY SCHOOL CHILDREN'S PERFORMANCE AND CLASSROOM BEHAVIOR IN NIGERIA

Olubusayo Foluso ADEBUSUYI , Dorcas Oluwakemi JIMOH, Ademola Kehinde BADRU

230-240

DEVELOPMENT OF A TRAUMA-SENSITIVE SCHOOL SCALE: VALIDITY AND RELIABILITY STUDY

Erhan BOZDEMİR, Nejat İRA

241-257

PTSD AND THE RESILIENCE TRIAD: LEVERAGING POST TRAUMATIC GROWTH, MINDFULNESS, AND SOCIAL SUPPORT FOR RECOVERY AND TRANSFORMATION

Augusta Nkem MOLOKWU, Kemi Adejoke AKINMOSIN

258-266

THE RELATION BETWEEN TEACHERS' DIGITAL LITERACY LEVELS AND THEIR SUBJECTIVE WELL-BEING

Şevket GÜNGÖR, Nejat İRA

267-277

WORKPLACE CHALLENGES AND INCLUSION OF GRADUATE EMPLOYEES WITH HEARING IMPAIRMENT IN OYO STATE, NIGERIA

Faisat Omolara Bello, Anuoluwapo Elizabeth Adeduyigbe

278-287

EXAMINING THE RELATIONSHIP BETWEEN SPECIAL EDUCATION TEACHERS' EXPOSURE TO MOBBING AND THEIR HAPPINESS AT WORK LEVELS

Aylin SOLMAZ, Cahit NURİ

288-297

ISSN: 1300-7432



PREDICTORS OF QUIET-QUITTING BEHAVIOURS AMONG NON-TEACHING STAFF OF TERTIARY INSTITUTIONS IN OYO

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Received: August 28, 2025

Accepted: November 13, 2025

Published: December 31, 2025

Suggested Citation:

Fehintola, V. A. (2025). Predictors of quiet-quitting behaviours among non-teaching staff of tertiary institutions in Oyo. *Turkish International Journal of Special Education and Guidance & Counselling (TIJSEG)*, 14(2), 146-158.



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Abstract

This study examined quiet-quitting behaviors among non-teaching staff in tertiary institutions, addressing a research gap regarding organizational factors influencing this phenomenon. Using correlational survey design, researchers investigated how role overload and psychological safety influences quiet-quitting behaviors in Oyo Town institutions. The study targeted 332 non-teaching staff from three public institutions, selected through stratified and simple random sampling. Data collection utilized validated self-administered questionnaires measuring role overload, psychological safety, and quiet-quitting behaviors. Results revealed significant correlations with quiet-quitting: role overload showed positive correlation ($r = .46, p < .01$) while psychological safety demonstrated negative correlation ($r = -.39, p < .01$). Combined factors explained 31.1% of quiet-quitting variance ($R = .557, \text{Adj. } R^2 = .307, F = 73.7, p < .001$). Role overload had greater individual impact ($\beta = .42, \text{partial } r^2 = .17$) than psychological safety ($\beta = -.31, \text{partial } r^2 = .12$). The study concluded that both factors significantly influence quiet-quitting, with workload pressures predominating. Researchers recommend comprehensive organizational interventions addressing workload redistribution while fostering psychologically safe environments to reduce employee disengagement.

Keywords: Quiet-quitting behaviours, role overload, psychological safety, non-teaching staff, tertiary institutions.

INTRODUCTION

The world of work is undergoing a remarkable shift, with employees increasingly redefining their relationship with organisations. One recent trend that has captured the mind of global researchers is "quiet-quitting." Quiet-quitting does not refer to physical resignation from employment but rather the psychological withdrawal from work, where employees reduce efforts strictly to what is expected in their job descriptions, avoiding inputting any discretionary effort (Yıldız, 2023). A Gallup report in 2022 estimated that nearly 50% of the U.S. workforce identified as quiet quitters, signalling an alarming disengagement crisis (Gallup, 2023) – this signifies that even when socioeconomic conditions are above average, the phenomenon exist. Scholars argue that quiet quitting reflects unmet expectations, burnout, lack of recognition, and deteriorating trust in leadership (Maslach & Leiter, 2000; Karamath Basha & Pathania, 2025).

While the phenomenon has gained popularity in Western contexts, empirical research on its manifestation in Africa, particularly Nigeria, remains limited. This creates a pressing need to examine how workplace realities in Nigeria's tertiary institutions may trigger or suppress quiet-quitting behaviours, especially among the often-overlooked non-teaching staff. Nigeria's tertiary education system is one of the largest in Africa, with over 270 accredited tertiary institutions spread across the country (National Universities Commission, 2024). Within these institutions, non-teaching staff constitute a significant portion of the workforce, playing critical roles in administration, finance, ICT, security, library management, maintenance, and student services. Yet, unlike academic staff whose struggles often receive attention through union activities such as ASUU strikes, non-teaching staff challenges are frequently marginalised (HumAngle, 2024; Aderibigbe et al., 2018). Reports highlight issues such as understaffing, inadequate training opportunities, delayed salaries, and excessive workloads as key problems confronting this category of employees (Ayodele et al., 2022). In effect,



many non-teaching personnel are caught in a cycle of frustration, invisibility, and exhaustion—conditions that provide fertile ground for disengagement and quiet quitting.

One of the most prominent predictors of quiet quitting is role overload. Role overload occurs when the demands of a job exceed the time, energy, or resources available to the employee (Bolino & Klotz, 2015; Peterson et al., 2008). In Nigerian tertiary institutions, role overload is pervasive. For example, in many colleges and universities in Oyo State, a single ICT officer may be responsible for managing thousands of student accounts, while a bursary officer handles overwhelming financial transactions for both staff and students. Similarly, administrative officers often combine clerical tasks, supervision of junior staff, and student-related services without adequate support. Such demands increase the likelihood of burnout, absenteeism, and ultimately disengagement (Okefor & Alamina, 2018; Quezon & Esmene, 2024). When employees feel consistently overwhelmed, they may resort to quiet quitting as a survival strategy to cope with their workload without risking complete withdrawal from employment.

Psychological safety is a significant component that influences quiet quitting as well. A common perception that interpersonal risks, like speaking up about difficulties, owning up to errors, or putting forth novel ideas, may be taken without fear of unfavourable outcomes is known as psychological safety (Edmondson, 1999; Kahn, 1990). In many Nigerian workplaces, particularly in public tertiary institutions, hierarchical structures and power distance discourage open communication (Akinwale et al., 2023; Aderibigbe et al., 2018). Non-teaching staff may fear victimisation, ridicule, or punitive measures if they express dissatisfaction or propose reforms. The absence of psychological safety not only stifles creativity and innovation but also increases the likelihood of silent withdrawal behaviours. Equally, workplaces that foster trust, inclusivity, and open dialogue are more likely to retain engaged employees (Kim & Sohn, 2024; Okefor & Alamina, 2018). Thus, psychological safety may either buffer against role overload's influence on quiet quitting.

The focus on Oyo Town provides a meaningful context for this study. Oyo is home to several key tertiary institutions, including the Federal College of Education (Special), Ajayi Crowther University, and the newly established Emmanuel Alayande University of Education, among others. These institutions employ hundreds of non-teaching staff across diverse units. Yet, similar to other institutions in the country, these institutions grapple with issues such as underfunding, infrastructural decay, and administrative inefficiencies, which directly affect staff morale (TETFund, 2024). Empirical work in Nigeria have documented indicators of quiet-quitting behaviours (reduced discretionary effort and deliberate slowdown) in public service sectors; coupled with multiple instances of protests over unpaid or withheld remuneration (Fehintola et al., 2021; Fehintola et al., 2023). These findings suggest that staff disengagement is a structural workplace issue in Nigerian tertiary institutions rather than merely a Western social-media fad.

Despite the relevance of quiet quitting to Nigeria's higher education workforce, existing scholarship has disproportionately focused on academic staff. Job satisfaction, burnout, and turnover intention research among lecturers are relatively common (Akinwale et al., 2023; Beauty, 2025), while the experiences of non-teaching staff remain understudied. This creates a significant research gap, as the disengagement of non-teaching staff has direct implications for institutional effectiveness, student satisfaction, and service delivery. In addition to advancing the field of personnel psychology, examining the frequency and predictors of quiet-quitting behaviours among non-teaching staff in Oyo Town will offer useful information to legislators and institutional leaders.

In sum, this study is anchored on the recognition that quiet quitting reflects deeper organisational and psychological issues rather than individual laziness. The current research evaluates the role overload and psychological safety as predictors of quiet quitting among non-teaching employees in tertiary institutions in Oyo Town to shed light on the problem of employee engagement and how this issue can be resolved in the Nigerian scenario. It is hoped that the findings will be used in future academic discussion on work design, employee well-being, and institutional change within higher education,



and also offer administrators evidence-based practices on how to create environments that reduce disengagement and improve productivity, eventually leading to the resilience of educational system in Nigeria.

Objectives of the Study

The study sets the following specific objectives:

1. To determine the significant relationships between role overload, psychological safety, and quiet-quitting behaviours among non-teaching staff of tertiary institutions in Oyo Town.
2. To examine the joint predictive influence of role overload and psychological safety on quiet-quitting behaviours among non-teaching staff of tertiary institutions in Oyo Town.
3. To identify the relative contribution of role overload and psychological safety in predicting quiet-quitting behaviours among non-teaching staff of tertiary institutions in Oyo Town.

Research Questions

This investigation was guided by these research questions and was addressed at the 0.05 level of statistical significance:

1. What are the significant relationships between role overload, psychological safety, and quiet-quitting behaviours among non-teaching staff of tertiary institutions in Oyo Town?
2. What is the combined predictive effect of role overload and psychological safety on quiet-quitting behaviours among non-teaching staff of tertiary institutions in Oyo Town?
3. What is the relative contribution of role overload and psychological safety in predicting quiet-quitting behaviours among non-teaching staff of tertiary institutions in Oyo Town?

Literature Review

Conceptualising Quiet-Quitting Behaviours

Quiet quitting has emerged as a critical personnel psychology construct capturing employee disengagement in contemporary workplaces. Contrary to its popular framing on social media, scholars emphasise that quiet quitting is not the act of leaving a job, but rather the withdrawal of discretionary effort, where employees restrict their engagement to contractual obligations without extending themselves (Gray et al., 2025; Yildiz, 2023; Dillard et al., 2025). This phenomenon is closely linked to work disengagement and job withdrawal behaviours (Gray et al., 2025). Studies shows that quiet quitting is often triggered by burnout, unmet expectations, and a lack of career growth (Schaufeli & Taris, 2024; Yıldız, 2023). Non-teaching personnel in the Nigerian tertiary education sector make up an important but under-acknowledged workforce; non-teaching slowing of work, refusal to do extra work, and refusal to assist students in ways that go beyond the official job are all examples of quiet quitting. These consequences are substantial and lead to poor organisational results, decreased employee welfare, and poor institutional performance (Xueyun et al., 2023; Kim & Sohn, 2024).

Role Overload and Employee Behaviour

Role overload could be understood as the perception of the employees that the expectations imposed on them exceed their resources, time, or energy (Bolino and Klotz, 2015; Maslach and Leiter, 2016). A theoretical framework applicable to the interpretation of this phenomenon is the Job Demands-Resource (JD-R) model that states that an increase in demands without sufficient resources results in the depletion of energy and the subsequent strain and disengagement (Bakker & Demerouti, 2017; Demerouti et al., 2023). Empirical research has always shown a positive correlation between role overload and burnout, absenteeism, turnover intention, and work disengagement (Crawford et al., 2010; Lesener et al., 2019). Tertiary institutions in Nigeria are faced with ongoing underinvestment and overcrowding, burdening the non-teaching staff (Aderibigbe et al., 2018; HumAngle, 2024). As an example, administrative personnel are often handling administrative, supervisory, and student-facing roles simultaneously, whereas bursary officers have to process immense financial transactions on



behalf of high student numbers. These excessive demands make role overload a plausible predictor of quiet-quitting behaviours. Employees may adopt quiet quitting not out of laziness, but as a coping mechanism to preserve psychological health when institutional demands are unsustainable (Hobfoll et al., 2018).

Psychological Safety and Work Engagement

Edmondson (1999) coined the term "psychological safety," which describes the general perception among workers that they can voice their opinions, voice concerns, or own up to their mistakes without worrying about the repercussions. According to research, psychological safety promotes team learning, creativity, trust, and job satisfaction (Edmondson & Lei, 2014; Newman et al., 2017; Frazier et al., 2017; Kahn, 1990). In contrast, environments with low psychological safety discourage openness, encourage silence, and often fuel disengagement (Carmeli & Gittell, 2009; O'Donovan & McAuliffe, 2020; Singh et al., 2013). Within Nigerian tertiary institutions, hierarchical structures, bureaucratic bottlenecks, and authoritarian leadership styles often undermine psychological safety (Aderibigbe et al., 2018; Akinwale et al., 2023, Okefor & Alamina, 2018). Non-teaching employees might have fears of victimisation when they come forward with their perceived injustices or challenge the institutional inefficiencies, and may therefore resort to quiet-quitting behaviours as a relatively less risky option to conflict. On the other hand, psychologically safe environments may alleviate the negative effects of role overload through creating cooperation, confidence, and flexibility (Schaubroeck et al., 2011; May et al., 2004; Kim & Sohn, 2024). Therefore, psychological safety can be used as a moderator of disengagement processes and predictor by itself.

Integrating Role Overload, Psychological Safety, and Quiet Quitting

Collectively, empirical evidence suggests that role overload increases both occupational strain and the probability of disengagement, and psychological safety mediates how employees react to strain. In a condition of high role overload and low psychological safety, employees are likely to revert to quiet quitting as an overt withdrawal behaviour. On the other hand, a high level of psychological safety can lead to employees with high workloads feeling empowered to ask, express, and maintain interest. These findings are consistent with Conservation of Resources (COR) theory in that individuals seek to conserve their resources and will withdraw when they perceive resource loss to be high (Hobfoll et al., 2018; Halbesleben et al., 2014; Wingerden et al., 2017). Although, there exists a lot of global research on workload, psychological safety, and disengagement, little has been done to investigate how the three factors interact to produce quiet-quitting behaviours, especially in the Nigerian higher education system. Most Nigerian research has targeted academic personnel, so non-teaching staff, even though they play important roles in the operation of institutions, are under-researched (Akinwale et al., 2023; Beauty, 2025; Quezon & Esmene, 2024). This is a gap that highlights the necessity of context-specific empirical inquiry.

Theoretical Framework

The study is based on the Job Demands–Resources (JD-R) model, which is a prevalent framework used in personnel psychology to explain employee well-being, motivation, and performance results (Bakker & Demerouti, 2017; Schaufeli, 2017; Lesener et al., 2019). The JD-R model argues that any given occupation has a specific set of risk factors that may be classified into two areas: job demands and job resources. Job demands refer to the physical, psychological, social or organisational aspects of a job that require long-term effort and that come with physiological or psychological costs such as workload, time pressure and emotional strain. Job resources, on the other hand, are factors of work that enable one to achieve work objectives, reduce job demands, and support personal development such as autonomy, feedback, and favourable leadership. The model hypothesises the two processes: a health-impairment process, whereby excessive employment demands result in burnouts and disengagement, and a motivational process, whereby adequate employment resources promote work engagement and resilience (Schaufeli & Taris, 2014).

In the current research, under the circumstances of using the Job Demands-Resources (JD-R) model, role overload can also be identified as a relevant job demand, potentially exhausting the energetic resources of employees and increasing the risk of disengagement as a common operationalisation of quiet quitting. Tertiary institutions whose non-teaching staff feel forced to do too much work in the absence of the proportional assistance might have to turn to psychological withdrawal to manage the stress. Psychological safety, in its turn, is a significant job resource in the JD-R model. Within an environment that is high in psychological safety, the employees would be better placed to express issues, seek support, and to work collectively, thus reducing the negative consequences of role overload. In contrast, the health-impairment process is dominant when there is also no psychological safety, and role overload is more apt to trigger quiet-quitting behaviours. As a result, the JD-R model provides a comprehensive lens with the help of which the equilibrium, or a lack thereof, between demands and resources can be comprehended regarding employee disengagement in Nigerian tertiary institutions (Tummers & Bakker, 2021; Scholze & Hecker, 2024).

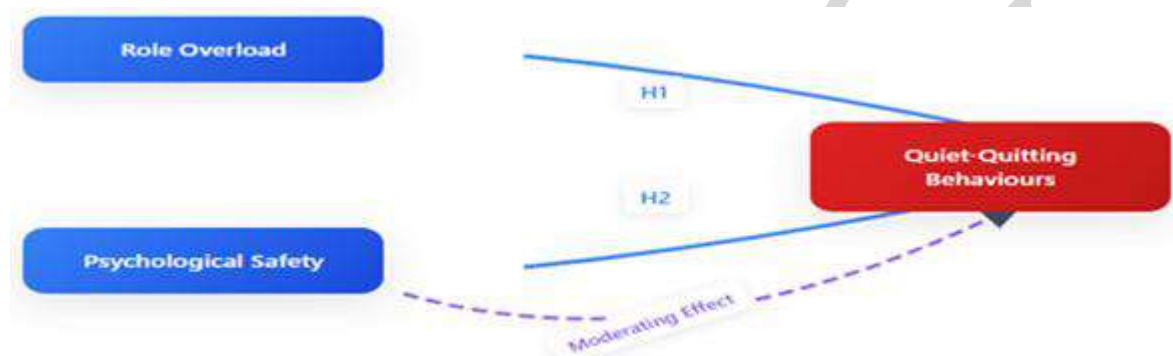


Figure 1. Conceptual framework for the study (Source: own design).

METHOD

The current study followed quantitative research paradigm where it used correlational survey design to examine the predictive validity of the role overload and psychological safety on the quiet-quitting behaviours among the non-teaching employees in the sampled tertiary institutions in Oyo Town, Oyo State, Nigeria. A correlational survey design was considered appropriate because it enables the researcher to identify statistical relationships between variables and assess the predictive capacity of independent variables without manipulating the study environment (Creswell & Creswell, 2017).

The target population consisted of all non-teaching staff employed in three public tertiary institutions in Oyo Town: the Federal College of Education (Special), Oyo, the Emmanuel Alayande University of Education, and the Federal School of Surveying. According to official records obtained from the Personnel Affairs Division/its equivalent of each institution as at June 2025, the combined non-teaching workforce across the three institutions stood at 1,437 employees. These include administrative officers, clerical staff, bursary staff, ICT officers, technical staff, library staff, and support service personnel. Public tertiary institutions were deliberately chosen due to their statutory importance in Nigeria's educational landscape, their large workforce, and the availability of reliable population records.

Krejcie and Morgan's sampling table, which states that at a 95% confidence level and 5% margin of error, a minimum of 302 participants is sufficient for a population of 1,437, was used to calculate the sample size. A minimum requirement of 107 individuals was also recommended by a G*Power study for multiple regression with two predictors, a medium effect size ($f^2 = .15$), $\alpha = .05$, and power = .95. The bigger sample recommended by Krejcie and Morgan was used to guarantee both representativeness and statistical robustness, and an extra 10% was added to allow for non-response, resulting in a final target sample of 332 participants.



This study employed a stratified random sampling technique. The first stratum was based on institution (Federal College of Education (Special), Emmanuel Alayande University of Education, and Federal School of Surveying). Within each institution, proportionate allocation was used to determine the number of participants to be drawn based on each institution's staff strength. The second stratum was job category (administrative, technical/ICT, bursary, clerical, and support services). Finally, simple random sampling was applied within each category to select respondents. Fair representation across institutions and job roles was guaranteed by this process, which improved the findings' applicability to the larger group of non-teaching employees in Oyo Town's higher education institutions.

Instrumentation

Three standardised instruments were used in this study to measure the constructs of interest:

1. Role Overload Scale

Beehr, Walsh, and Taber (1976) created the Role Overload Scale, which was later condensed and used extensively in occupational stress studies to quantify role overload. The condensed version comprises five items that gauge how much employees believe they have too many tasks or not enough time to finish them. Examples include "I never appear to have enough time for getting everything done" and "I have a great deal to do to do everything well." A 5-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree," is used to score responses. Cronbach's α ranges from .79 to .86, indicating strong dependability according to earlier research (Peterson et al., 2011). Results showed good internal consistency ($\alpha = .82$), suggesting contextual relevance, after the instrument was pilot tested with 30 non-teaching staff members at a similar institution outside of Oyo Town.

2. Psychological Safety Scale

The 7-item Team Psychological Safety Scale, created by Edmondson (1999), was used to evaluate psychological safety. The scale assesses how employees view openness and interpersonal risk-taking in the workplace. Examples include "It is safe to take a risk in this organisation" and "If you commit an error on this team, it is not held against you." A 5-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree," is used to score responses. Prior research has demonstrated good construct validity and high reliability (α values usually ranging from .70 to .85; Newman et al., 2017). Cronbach's $\alpha = .81$ and confirmatory factor analysis (CFA) supported a unidimensional structure with adequate fit indices ($\chi^2/df = 2.10$; CFI = .94; RMSEA = .06), confirming satisfactory psychometric performance in this study's pilot testing.

3. Quiet-Quitting Behavioural Index

A contextualised behavioural checklist that was modified from the Organisational Citizenship Behavior–Withdrawal model (Podsakoff et al., 2000; Koopman et al., 2016) was used to measure quiet quitting. To identify disengagement behaviours pertinent to non-teaching personnel in postsecondary institutions, a 10-item index was created. Examples include: "I intentionally refrain from taking on tasks that are outside the scope of my official responsibilities," "I only put in the minimal amount of effort necessary for my job," and "I disregard tasks that are not specifically included in my job description." A 5-point Likert scale, ranging from 1 (Never) to 5 (Always), was used to rate the responses. A preliminary CFA using three behavioural dimensions—reduced effort, disengagement of discretionary activities, and aversion to extra-role tasks—supported the construct validity of the scale, which was piloted with 40 respondents from a nearby university. Excellent internal consistency was demonstrated by the scale's Cronbach's α of .88. The index was judged suitable for use in the primary research based on pilot results.

Data Analysis

The data analysis employed descriptive and inferential statistical procedures using IBM SPSS Statistics v28.0 (and AMOS v28 for CFA). Descriptive statistics (mean, standard deviation,



minimum–maximum) were produced for the three study variables—role overload, psychological safety, and quiet-quitting behaviours—to characterise central tendency and dispersion.

RESULTS

RQ1. Relationships among role overload, psychological safety, and quiet-quitting

The analysis results for "Relationships among role overload, psychological safety, and quiet-quitting" are presented in Table 1.

Table 1. Pearson correlations

Variables	1	2	3	Mean	Std.Dedv.
1. Role Overload	—			3.42	.81
2. Psychological Safety	-.28 [-.37, -.18]**	—		3.11	.76
3. Quiet-Quitting	.46 [.38, .53]**	-.39 [-.47, -.30]**	—	3.28	.84

**Two-tailed; $p < .01$ for bolded coefficients.

In Table 1, higher role overload relates to higher quiet-quitting ($r = .46$), whereas higher psychological safety relates to lower quiet-quitting ($r = -.39$). Predictors are modestly and inversely related ($r = -.28$), supporting low multicollinearity. The correlation results show that role overload is moderately and positively related to quiet-quitting, indicating that excessive workload pressures increase the likelihood of disengagement behaviours. Equally, psychological safety is negatively associated with quiet-quitting, suggesting that supportive, risk-tolerant environments reduce withdrawal. The predictors themselves are modestly and inversely correlated, implying they tap into distinct aspects of the work environment, with minimal overlap and low multicollinearity. Together, these findings confirm that both stress-related and relational factors significantly shape disengagement tendencies among non-teaching staff.

RQ2. Joint predictive effect of role overload and psychological safety on quiet-quitting.

The analysis result of "Joint predictive effect of role overload and psychological safety on quiet-quitting" is given in Table 2.

Table 2. Model summary and ANOVA

Model	R	R ²	Adj. R ²	SEE	
Quiet-Quitting ~ Role Overload + Psychological Safety	.557	.311	.307	.70	
ANOVA	SS	Df	MS	F	Sig.
Regression	72.40	2	36.20	73.7	<.001*
Residual	161.15	329	.491		
Total	233.55	331			

* $p < .001$

Table two revealed the joint effect of the independent on the dependent variable. The model is significant, $F_{(2, 329)} = 73.7$, $p < .001$, explaining 31.1% of variance in quiet-quitting. Overall effect size $f^2 = R^2/(1-R^2) = .45$ (large). With $N = 332$ and 2 predictors, sensitivity analysis indicates the study is well powered to detect small effects. The regression model demonstrates that role overload and psychological safety jointly explain 31% of the variance in quiet-quitting behaviours, with a large effect size ($f^2 = .45$). This indicates that the interplay of workload pressure and relational climate substantially influences disengagement among staff. The high explanatory power underscores that organisational conditions, rather than individual differences alone, are central to understanding quiet-quitting. Importantly, the model's robustness and statistical significance confirm that both predictors together provide a meaningful framework for interpreting staff withdrawal in tertiary institutions.



RQ3. Relative contribution of role overload and psychological safety.

The analysis results for "Relative contribution of role overload and psychological safety" are given in Table 3.

Table 3. Regression coefficients, collinearity, and unique effects.

Predictor	B	SE B	95% CI for B	β	t	Sig.	Tolerance	VIF	Partial r^2 (unique)
Constant	2.87	.22	[2.43, 3.31]	—	13.0	<.001	—	—	—
Role Overload	0.43	.05	[.33, .53]	.42	8.5	<.001	.92	1.09	.17
Psychological Safety	-.34	.05	[-.44, -.24]	-.31	-6.8	<.001	.92	1.09	.12

p<.001

Both predictors are significant. Role overload shows the larger unique contribution (partial $r^2 \approx .17$) vs. psychological safety (partial $r^2 \approx .12$). Together with shared variance ($\sim .01$), they account for $R^2 \approx .31$. The regression coefficients show that both predictors significantly contribute to quiet-quitting, with role overload ($\beta = .42$, partial $r^2 = .17$) exerting stronger influence than psychological safety ($\beta = -.31$, partial $r^2 = .12$). This means that excessive role demands are a more powerful driver of disengagement, although a supportive climate still offers protective value. Bootstrapped robustness tests confirmed the stability of these effects. These results highlight the importance of balancing workload and fostering psychological safety to mitigate quiet-quitting behaviours among non-teaching staff.

DISCUSSION, CONCLUSION, and RECOMMENDATIONS

Developing the key interrelations between role overload, psychological safety, and quiet-quitting behaviour is a breakthrough that clarifies the complex process of employee disengagement in the context of Nigerian tertiary institutions. There is a positive correlation between role overload and quiet-quitting with psychological safety moderating this relationship, thus supporting the theoretical hypotheses and proving the interdependence of stressors and resources at work. These results are empirical evidence of Job Demands Reserves model (Demerouti et al., 2015), which states that a high workload is a job demand, which can lead to strain and withdrawal behaviours when a person does not have sufficient resources. The psychological safety buffering effect of quiet-quitting conforms to the historical research of Edmondson (1999), who revealed that the environment of trust and open communication helps employees to cope with challenges at the workplace better. Further, the low negative relationship between role overload and psychological safety depicts a vicious circle in which increased job requirements undermine the interpersonal resources that are imperative to reduce the adverse consequences.

These results have significant contextual implications that should be considered in detail. Situated in most cases by the paucity of resources and the exigencies of bureaucracy, the tertiary institutions in Nigeria provide a set up in which it is possible to have non-teaching staff being overworked and at the same time they may not have the support of supervision. This paper shows that so-called quiet-quitting phenomenon, which is commonly practised in the context of Western corporations, can also be seen in the African educational setting implying that there might be common sets of patterns in the way employees react to work-related stressors. These results offer an institutional change basis. Instead of defining the concept of disengagement by the lack of personal traits of character or the lack of motivation, the administrators should realise that it is a natural response to the organisational conditions. Interventions are thus supposed to focus more on redistribute workloads and clarify the role expectations and facilitate psychologically safe working conditions which can be accomplished by establishment of leadership programmes that focus on supportive supervision and free communication.

The joint strength of role overload and psychological safety (accounting 31% -percent of the variance in the quiet quitting behaviour) indicates the complexity of the problem of employee disengagement



and questions the simplistic explanations of withdrawal based on personal traits only. This large effect size shows that organisational conditions strongly determine the level of employee engagement, which is supported by recent meta-analytical research evidence on the significance of contextual variables in the prediction of workplace behaviours. Based on the Organisational Support Theory (Eisenberger et al., 1986), the joint predictive effect shows that psychological safety reflects how employees perceive the organisational care and concern interact dynamically with job demands to determine behavioural outcomes. When employees have a sense of high organisational support in the form of psychologically safe conditions, they are more resilient to the adverse effects of workload pressures; low psychological safety increases the effects of role overload on disengagement. The interaction effect is consistent with the results of Kurtessis et al. (2017), who have found that perceived organisational support acts as a pandemic against workplace stressors.

The substantial yet incomplete predictive power (31%) of these two variables highlights the complexity of quiet-quitting as a phenomenon. While role demands and safety perceptions are clearly important, the remaining 69% of unexplained variance points to additional factors that warrant investigation—potentially including job autonomy, career development opportunities, compensation equity, or broader organizational culture variables. From a systems perspective, these findings suggest that effective interventions must be holistic rather than piecemeal. Organizations cannot simply reduce workloads without attending to climate factors, nor can they create psychologically safe environments while ignoring overwhelming job demands. The synergistic effect shows that the holistic nature of organisational development interventions, which address structural and relational elements simultaneously, is a necessity to substantive change. Subsequently, employee retention and engagement strategies should also address workload pressures through streamlined staffing ratios and process efficiencies and invest in leadership development, team-building programmes, and communication systems that promote psychological safety.

The differences in predictive power of role overload and psychological safety explain vital differences in the antecedent of quiet quitting, with both theoretical and practical implications. The fact that role overload is the weaker of the two predictors suggests that structural job demands are a more essential threat to employee engagement in resource-restrained situations, although the role of relational resources is still important. This finding resonates with hierarchical models of human needs, where basic job security and manageable workloads may take precedence over higher-order social and esteem needs (Maslow, 1943). When employees are overwhelmed by work demands, the beneficial effects of supportive relationships and psychological safety, while still meaningful, may be insufficient to prevent disengagement. The primacy of workload concerns aligns with recent research on employee well-being, which has consistently identified excessive job demands as primary predictors of burnout and withdrawal (Bakker & Demerouti, 2017).

However, the continued significance of psychological safety as a predictor, even when controlling for role overload, underscores its independent value as an organizational resource. This supports Newman et al. (2017) systematic review findings that psychological safety contributes uniquely to employee outcomes beyond its interaction with job demands. The protective effect of psychological safety suggests that even in high-demand environments, supportive leadership and collegial relationships can mitigate some negative consequences of workload pressure. The practical implications favor a tiered intervention approach. Given role overload's stronger predictive power, organizations should prioritize structural changes that address workload issues—such as process automation, role clarification, additional staffing, or workflow redesign. Investments in psychological safety through leadership development, communication training, and team-building can provide additional protective benefits and enhance overall organizational climate. Future research should however, explore whether these relative contributions vary across different organizational contexts, job types, or cultural settings. Longitudinal studies could also examine whether the relative importance of workload versus psychological safety changes over time or at different career stages.



Conclusion

This study provides compelling empirical evidence for the prevalence and predictors of quiet-quitting behaviors among non-teaching staff in Nigerian tertiary institutions, offering valuable insights into a phenomenon that has received limited scholarly attention in the African higher education context. The study confirms that quiet quitting is not only a phenomenon of western corporations but a global reaction to organisational dysfunction that is also highly observed in educational settings that are resource-limited. The results indicate that role overload and psychological safety contribute equally to the variance in quiet-quitting behaviours whereby role overload is the stronger predictor that relational resources are not superior in predicting employee disengagement.

The theoretical implications of this work are quite significant, as they offer an empirical confirmation of the Job Demands-Resources model in relation to the institutional setting of Nigeria and emphasise the complicated nature of relationships between workload pressures and organisational climate variables. The moderate positive correlation between role overload and quiet quitting ($r = .46$) confirms that excessive job demands serve as primary catalysts for withdrawal behaviors, while the negative association between psychological safety and quiet quitting ($r = -.39$) underscores the protective value of supportive work environments. These relationships illuminate the systemic nature of employee disengagement, challenging individualistic explanations that attribute withdrawal to personal shortcomings or motivational deficits.

From a practical standpoint, the study's findings have profound implications for institutional leadership and human resource management in Nigerian tertiary education. The current paper shows that quiet quitting is a logical coping mechanism that employees use to face unsustainable working conditions, not a symptom of poor work ethic or organisational commitment. As a result, the findings necessitate a substantive re-assessment of managerial practises with regards to employee disengagement, promoting a holistic intervention paradigm that does not only encompass relational but also systemic organisational failures. The study fills a gap in the literature on personnel-psychology research by focusing on non-teaching staff, a historically marginal and nonetheless essential segment of the workforce, and contributes a set of practical recommendations to enhance organisational performance and worker welfare within the higher-education sector in Nigeria.

Recommendations

Considering the empirical results and the implications thereof, the following recommendations are formulated towards the institute leaders, policymakers, and scholars. First, the redistribution of the workload and the optimization of the administrative procedures should become the main concern of the tertiary institutions in order to reduce the major contributor of the quiet quitting. To achieve this goal, the adoption of far-reaching job analysis research to reveal duplication and inefficiency in the duties, implementation of information-technology infrastructure to streamline bureaucracies, and ensuring sufficient staff-to-patient ratios in all non-teaching departments is necessary. In addition, organisations are to outline clear and succinct job descriptions, as well as set performance goals, thus avoiding the issue of unofficial jobs acquisition over time, which leads to the role overload.

Second, leadership development programmes with an underpinning of developing psychological safety must be established at all levels of the administrative hierarchy. These activities ought to inculcate transformational leadership behaviours, effective communication strategies and conflict-resolution skills that are aimed at promoting trust and openness. Psychological-safety metrics should be assessed by means of systematic climate assessments and 360-degree appraisal tools that allow determining points at which timely intervention is required. Also, formalised employee feedback and grievance resolution mechanisms should be enhanced to make sure that the issues raised by staff are dealt with efficiently and openly.

Thirdly, policymakers should consider systematic changes that challenge the resource constraints that drive such organisational dilemmas. These reforms must include suggestions to improve funding patterns in tertiary institutions, offer professional-growth opportunities to non-teaching staff, and



introduce performance-based pay regimes to recognise excellent service. Future studies are needed that question longitudinal patterns of quiet-quitting, test supporting antecedents like job-autonomy and career-growth opportunities, evaluate possible moderating factors including organisational culture and personal resilience. Cross-cultural investigations that compare the cases of quiet-quitting occurrences across fragmented African settings would also add strength to theoretical trepidation even as it informs context specific interventions.

Ethics and Conflict of Interest

This research was conducted in accordance with recognized ethical standards. Ethical approval was obtained from the relevant institutional review board. The author declares that he acted in accordance with ethical rules in all processes of the research. The author declares that there are no conflicts of interest related to this work.

Data availability

The data that support the findings of this study are available on request from the corresponding author.

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METACOGNITIVE STRATEGIES OF PROSPECTIVE PSYCHOLOGICAL COUNSELORS IN THE CONTEXT OF SCHOOL GUIDANCE PRACTICES

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Received: July 7, 2025

Accepted: October 12, 2025

Published: December 31, 2025

Suggested Citation:

Altay Öztürk, B. (2025). Metacognitive strategies of prospective psychological counselors in the context of school guidance practices. *Turkish International Journal of Special Education and Guidance & Counselling (TIJSEG)*, 14(2), 159-193.



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Abstract

This study aimed to improve and uncover the metacognitive skills of fourth-year undergraduate students enrolled in the Psychological Counseling and Guidance program during their internship as part of the "Guidance and Psychological Counseling Practice (GPC) in Schools I" course. Conducted in the fall semester of the 2021-2022 academic year at a Turkish education faculty, the research involved 12 prospective teacher counselors. Data were collected through semi-structured interviews held after 12 synchronous online sessions designed to foster reflective thinking and self-evaluation. These sessions encouraged students to share their internship experiences in schools, aiming to enhance their metacognitive awareness and critical thinking skills. Students were tasked with observing school environments, fulfilling responsibilities, and preparing detailed reports aligned with the Ministry of National Education's criteria. The course guide, developed by the GPC department, was shared with both students and counselor teachers at schools and explained comprehensively at the semester's start. Six students interned at primary schools with low socio-economic levels, while the other six interned at high schools with middle socio-economic levels, spending at least half a day weekly at their practice schools. The findings emphasize the importance of structured tasks and reflective practices in improving metacognitive skills among prospective psychological counselors.

Keywords: Metacognition, school guidance practices, psychological counseling, reflective thinking.

INTRODUCTION

Having conscious awareness has an important effect on an individual's ability to lead a successful and happy life, to cope effectively with the problems s/he encounters, and to be content with life (Güven, 2019). A review study by Wang, Haertel, and Walberg (1990) stated metacognition to be a most powerful predictor of learning (cited by Veenman, Van Hout-Wolters & Afflerbach). Since metacognition has an important place in successful learning, it is noteworthy to examine metacognitive activity and improvement to determine how students can be taught to refer to metacognitive control. Flavell (1979) stated that metacognitive control includes monitoring, self-regulation and planning processes. Those who diligently observe and evaluate their performance, work to achieve good results by maintaining strategies and changing them as necessary (Hartman, 2001). Nisbet and Shucksmith (1986), for success in learning, propose six strategies involving asking questions, planning, monitoring, controlling, making corrections and self-testing. Metacognition is beyond thinking, and with an active awareness, a person has knowledge about his/her own thinking processes (Burke, 2007). Turner (1989) points out that, if students cannot be active and autonomous learners, this probably results from the insufficiency of their metacognitive awareness and strategies. Nelson and Narens (1994) expresses that "Metacognition is a bridge between areas, e.g., between decision making and memory, between learning and motivation, and between learning and cognitive development." Vandergrift (2005) underlines that metacognitive strategies are affected by learners' motivation levels. Metacognitive thinking processes and strategies can also be predicted to be effective on motivation. According to Bandura (1991), if people cannot pay enough attention to their own performance, the conditions under which the performance takes place and to their immediate and



long-term effects, they cannot influence their motivations and their actions for the better. He also advocates that success in self-regulation depends in part on commitment, consistency and self-monitoring. Phakiti (2003) notes that metacognition encompasses active self-monitoring, self-regulation and organizing cognitive processes. Zimmerman (1998) conceptualizes self-regulation in three phases: Pre-cognition, performance control and self-reflection. *Pre-cognition phase* precedes performance and it has a role in the process of setting goal for action. The *performance control phase* is the process that occurs during learning and processes such as social comparison, feedback, use of strategies affect attention and action. In the *self-reflection phase* that takes place after the performance, learners evaluate their efforts through monitoring their improvement about goals and organizing strategies. Taking this explanation as reference, it can be grasped that self-regulation is related to metacognitive thinking processes. Halpern (1998) states that when thinking critically, students should monitor their own thinking processes through making decisions about time and endeavour they made, ensuring accuracy and through checking for their goal-directed improvement. He also relates effectiveness of self-feedback with learners' metacognitive monitoring skills. Veenman, Van Hout-Wolters & Afflerbach (2006) reports that with reference to the literature, three basic elements are valued for successful metacognitive instruction: a) integrating content with metacognitive instruction b) Informing students about the usefulness of metacognitive activities to encourage them to make an effort and c) long-term training to ensure the handily and well-conducted implementation of metacognitive activity. Magno (2010) remarks that increase of knowledge can be attributed to critical thinking and the process of organizing knowledge can be a metacognitive factor. We should not consider this comment merely as an increase in theoretical knowledge. Practical experience are also an important factor in knowledge growth. For this reason, practices performed with metacognition both provide knowledge base and offer important gains in terms of experience. Within the scope of "GPC (Guance and Psychological Counseling Practice) in Schools I" course, it is of paramount importance that all the experiences of the Prospective Psychological Counselors are in harmony with their metacognitive thinking processes, to increase their professional awareness and to evaluate and know themselves better.

Improving the professional competencies of prospective teachers in the field of guidance and psychological counseling is not limited to acquiring technical knowledge and skills. This process also includes metacognitive awareness, which encompasses the ability to recognize, evaluate, and regulate one's own cognitive processes. Metacognition is a critical component that enables individuals to manage their learning processes more effectively, enhance problem-solving and critical thinking skills, and address professional challenges. The literature suggests that metacognition is a teachable construct and plays a significant role in professional development within the field of guidance and psychological counseling (Schraw, 2001). In this context, the aspects of metacognition that contribute to professional development, its applications in educational processes, and its impact on individual awareness should be thoroughly examined from various perspectives. Metacognitive awareness is a fundamental factor in improving the professional competencies of prospective teachers in the field of guidance and psychological counseling. Schraw (2001) states that metacognitive awareness is multidimensional, teachable, and domain-general, and he proposes four strategies to develop this awareness: promoting general awareness, fostering self-knowledge and regulatory skills, and creating appropriate learning environments. These strategies enable prospective teachers to improve self-directed learning skills during their professional development processes. Just as the professional development of prospective teachers in the field of guidance and psychological counseling is expected to progress with the increase in metacognitive awareness, it is also reasonable and logical to expect the various tasks they perform during teaching practice to have an impact on their professional and metacognitive development. Moreover, strategies to enhance this positive impact should be considered. Lambie and Sias (2009) emphasized that improving psychological maturity and metacognitive skills through supervision increases school counselors' professional competencies. In supervision processes, metacognitive awareness enables prospective psychological counselors to effectively manage complex situations and develop essential counseling skills such as empathy.



Similarly, a meta-analysis conducted by Carter (2019) revealed that effective clinical supervision plays a critical role in professional development and adherence to ethical standards. Based on these findings, Schraw (2001) highlighted the importance of external conditions and the quality of other relevant actors in the context of suitable learning environments, including supervision, for tasks that learners need to perform for their development. Peace and Sprinthall (1998) underscored the necessity of training experienced school counselors to effectively supervise novice counselors and proposed an in-service training program focused on development rather than evaluation. Their study drew attention to the shortcomings in existing supervision practices, noting that these deficiencies arise from the rarity of clinical supervision provided by trained colleagues and the limited impact of graduate-level supervision training. Additionally, the study concluded that increasing national interest and expectations for educational quality have made school counselors' roles more complex, necessitating the development of systematic in-service programs. In this regard, providing appropriate educational environments and training programs is critically important as it offers a solid foundation for prospective psychological counselors in terms of cognitive preparedness. Balashov, Pasichnyk, and Kalamazh (2022) designed an educational program aimed at developing students' metacognitive monitoring and self-regulated learning skills. The program sought to enhance students' abilities to set learning goals, control cognitive activities, and use metacognitive strategies. Reflection, intrinsic motivation, and the development of metacognitive skills were among the program's core objectives. Their study emphasized the impact of metacognitive monitoring on learning effectiveness and academic achievement. Granello (2002) examined the cognitive development of counseling students throughout educational programs and found a linear trend in this development as the program progressed. Furthermore, Granello (2010) stated that cognitive complexity is linked to positive counseling outcomes such as flexibility, empathy, and effectiveness. In this context, it can be said that improving prospective teachers' metacognitive awareness enables them to better manage their learning processes and make greater strides in acquiring the empathy and flexibility required for counseling. As they manage their own learning processes effectively, they can create mental space to view the external world with greater awareness and psychological well-being, positively influencing their professional development.

Harris (2010) conducted a study on a sample of 97 graduate students enrolled in a counseling program. Participants' psychological well-being was measured using the Scales of Psychological Well-Being (SPWB), while their perceived wellness was assessed using the Perceived Wellness Survey (PWS). The study examined the relationship between graduate-level counseling students' psychological well-being and perceived wellness, revealing a significant correlation between these two factors. These findings have important implications for counselors' development and self-care processes. The study emphasized that incorporating self-assessment tools into counselor education programs can help maximize students' psychological functionality, which in turn has positive social change effects by enabling better therapeutic care for future clients. Kandemir (2021) found that attachment styles and self-regulation skills significantly predict therapeutic alliance skills among prospective psychological counselors. These findings highlight the importance of focusing on self-regulation skills during prospective teachers' educational processes. Specifically, reducing the negative impact of avoidant attachment styles and enhancing self-regulation skills can contribute to strengthening therapeutic alliance skills. Self-regulation skills also encompass metacognitive skills. For an individual's self-regulated behaviors to gain consistency and continuity, the individual must plan, monitor, and evaluate their tasks and learning processes with metacognitive awareness. Effective self-evaluation by learners is one of the central elements of metacognition and enables effective self-reflection. Hulbig (2018), in a study addressing the use of metacognition in education, emphasized that self-reflection is a central component of education. Lee, Youn, and Kim (2015) examined the professional development experiences of undergraduate students in psychological counseling through reflective journal writing. The study involved six students who completed a counseling skills course, and their weekly reflective journals were analyzed using qualitative techniques. The analysis revealed categories such as increased awareness and knowledge about counseling, struggles and frustrations



stemming from inexperience in counseling, and efforts to overcome these frustrations to become professional counselors. The study highlighted the professional development processes of undergraduate psychological counseling students and emphasized that these findings could be used to improve future counseling education programs. It can be said that task variety plays an important role in developing prospective teachers' metacognitive awareness, whether individually or in groups. Scandurra et al. (2018) found that group psychodynamic counseling enhances the metacognitive skills of senior clinical psychology students and that these developments are sustainable. This finding, being relevant to psychological counseling, is worth considering for drawing implications for prospective teachers in the field of guidance and psychological counseling. Group work can help prospective teachers in this field recognize emotional states, understand cause-and-effect relationships, and improve critical thinking skills. In this context, the importance of group dynamics-based applications in educational environments becomes more apparent. Metacognition also plays a significant role in developing critical thinking skills. Rivas, Saiz, and Ossa (2022) found that improving metacognitive skills through problem-based learning enhances critical thinking skills. Their research demonstrated a bidirectional relationship between metacognition and critical thinking, where improvement in one area leads to advancements in the other. Redding (1990) emphasized that metacognitive training can improve decision-making, problem-solving, and attention skills. These skills are critical for the professional practices of prospective teachers in the field of guidance and psychological counseling. Additionally, González (2007) highlighted the importance of metacognitive strategies in acquiring professional competencies and stated that individuals must control their own learning processes. Professional competencies are approached from a metacognitive perspective, emphasizing the individual's ability to reflect on and think about their own learning and cognitive processes. González stressed the importance of identifying needs for developing these competencies. In professional development and 21st-century skills, being a global citizen is also considered a valued characteristic. In this context, possessing and aiming for intercultural awareness and competence is essential. Metacognitive processes and multicultural competence are emphasized as important elements for culturally appropriate career counseling (Byars-Winston & Fouad, 2006). The researchers critiqued career counseling models and proposed an extended model incorporating metacognition to address cultural factors. They also highlighted the importance of enhancing counselors' multicultural competencies and stated that these competencies should be developed in career counseling practices. In this regard, improving the multicultural competencies of prospective teachers in the field of guidance and psychological counseling, along with fostering their metacognitive awareness, can enable them to provide more effective and culturally appropriate counseling services in diverse contexts. Strengthening both multicultural competence and metacognitive skills not only enhances their ability to adapt to complex situations but also facilitates their achievement of global professional standards.

González (2007) emphasized the importance of metacognitive strategies in acquiring professional competencies, focusing on the self-directed learning approach. Professional competencies are addressed from a metacognitive perspective, emphasizing the individual's ability to reflect on and think about their own learning and cognitive processes. González stressed the importance of identifying needs to improve these competencies. According to Bandura (1994), a strong sense of productivity enhances human achievement and personal well-being in many ways, and people who are confident in their abilities view difficult tasks as challenges to be undertaken rather than as threats to be avoided. It is important to examine the strategies and approaches that future psychological counselors follow in terms of metacognition to provide them with the highest efficiency during their internship periods within the scope of "Guidance and Psychological Counseling Practice (GPC) in Schools I" course. If students have self-management skills, they can determine metacognitive strategies more effectively, and this can increase their performance and enable them to be productive. In this respect, it was aimed in this study to establish a connection between students' affective characteristics such as motivation and anxiety, their efforts and the metacognitive strategies they used and the obtained data were analyzed in this direction and the results were discussed by referring



to the relevant studies in the literature. In this study it is aimed to help fourth grade education faculty students of psychological counselling and guidance undergraduate programme improve their metacognitive skills in the process of GPC (Guidance and Psychological Counseling Practice) in Schools.

The tasks that the students who take this course should accomplish in line with the aspects mentioned above are explained as follows:

Tasks included 7 compulsory studies and 1 elective alternative study.

a) Compulsory Studies

1. Observation, Review and Weekly Evaluation of School Counseling Services and Preparation of Reports (12 Reports in total)
2. Legislation and E-Guidance Module Review / Evaluation Studies
3. Individual Recognition Techniques Practise Studies
4. Classroom Counseling Activity Practise
5. Creative Board/Panel and Brochure Preparation Studies
6. Counseling and Research Center Visit
7. General Evaluation

b) Optional Alternative Studies

In addition to the compulsory studies described above, students are expected to complete at least 1 alternative study included in the guide.

All reports of students were received from a classroom account created on the internet. Thus, the students saw the deadline for each task and uploaded their reports to the class portal in accordance with these dates.

Within the scope of the course students also instructed about the terms which are metacognition, self-regulation, critical thinking, endeavor, motivation and anxiety. The importance of these concepts in terms of the tasks they will achieve during the course and their contribution to them were explained to the students. Students were expected to share their views and experiences within the framework of these concepts in the synchronous lessons. They were also expected to write weekly reports related to their guidance practices at schools by focusing on these concepts mentioned.

Synchronous courses were conducted within the framework of the following basic questions:

Do you make any planning to ensure that the practices in the school are efficient and that your reports are well prepared?

To facilitate a comprehensive self-evaluation, students were told that they could consider the following ways to answer this question.

*Which ways do you prefer when planning?

*Detailed examination of the guide prepared by the GPC Department

*Creating her own work plan, paying attention to the dates in the guide for the tasks

*Communicating with friends in group work tasks

*Explaining how s/he made a plan for the tasks (It can be explained in class, it can be written in weekly reports.)

*Explaining the role of interactions with individuals/friends in the practice school in the planning process

*Explaining the issues that affect at least one aspect of the work plan related to the tasks in the process. (The role of the student's own attitudes or environmental influences can be described in weekly reports and lessons.)

* If they only have in mind their personal plans for the tasks covered in the course, explaining how they plan

*If they create written and/or charted personal plans (daily, weekly etc.), explaining this planning process in weekly reports and lessons.



How do you regard your own proficiency levels /your own strengths and weaknesses in terms of practice tasks at school?

To facilitate a comprehensive self-evaluation, students were told that they could consider the following ways to answer this question.

- *Talking about her/his attitude towards herself/himself and the profession at the stage before starting the internship period at the practice school
- * Talking about their observations and evaluations about their attitude changes after they started internship period at the practice school
- * Commenting on their positive or negative traits
- * Thinking about how the characteristics that they regard as positive contribute to them and what side gains these features bring to them.
- * Thinking about the sub-reasons of the characteristics which can be improved. Making self-criticism when necessary.
- * Thinking about whether they are successful enough in knowing themselves in situations/tasks that they need to overcome.
- *Considering the degree of willingness to follow different and functional strategies and/or to work creatively in order to be successful in the tasks in the internship guide.

Do you think about the aspects that you think are weak or improvable, and and what ways do you follow to improve them?

To facilitate a comprehensive self-evaluation, students were told that they could consider the following ways to answer this question.

- *Self-evaluation of all aspects of the profession
- *Explaining the role of acquired awareness in improving the individual characteristics
- *Thinking about the personal or external factors/personal strategies/behaviors, etc., that lead to gain awareness
- *Giving examples from their own experiences/ telling memories, stories while thinking about the above issues

Which situations did you observe in practice school? Are your expectations consistent with the situations you observe? Please explain.

To facilitate a comprehensive self-evaluation, students were told that they could consider the following ways to answer this question.

- *Comparing the observations/tasks etc. made at the practice school with the relevant information he gained during his 4-year undergraduate education, looking at the situations with a critical view, making an inference on the extent to which the theoretical knowledge can be applied to the practice.
- *Thinking and explaining the differences between their observations and experiences and their own expectations during the internship process, being aware of existing problems, thinking about solutions, communicating with other people, being willing to make short/long-term plans.
- *Giving examples from their own experiences/ telling memories, stories while thinking about the above issues

How did the responsibilities/s you took affect your anxiety?

To facilitate a comprehensive self-evaluation, students were told that they could consider the following ways to answer this question.

- *Reflecting on how responsibilities in the context of the tasks in the guideline undertaken at the practice school affect their own anxiety.
- *Identifying the situations that increase one's anxiety, thinking about possible sub-reasons of anxiety?
- *Reflecting on how the level of anxiety affects the process.
- *Identifying the situations that reduce the level of anxiety



*Giving examples from their own experiences/telling memories, stories while thinking about the above issues

How did the responsibilities/s you took affect your motivation?

To facilitate a comprehensive self-evaluation, students were told that they could consider the following ways to answer this question.

*Reflecting on how responsibilities in the context of the tasks in the guideline undertaken at the practice school affect their own motivation.

*Identifying the situations that decrease motivation, thinking about the sub-reasons that decrease motivation.

*Reflecting on how the level of motivation affects the process.

*Identifying the factors that increase the level of motivation

*Giving examples from their own experiences/telling memories, stories while thinking about the above issues

How will internship experience at the practice school help you?

To facilitate a comprehensive self-evaluation, students were told that they could consider the following ways to answer this question.

*Thinking about the functionality of the internship process within the scope of “Guidance Practices in Schools I” course in terms of professional development

*Thinking about the level of motivation s/he has in maintaining the internship process

* Reflecting on themselves before and during the internship, noticing the changes

* Reflecting on whether the challenges they have overcome in order to be productive and successful help them know themselves better

* Being aware of the changes in themselves in choosing and applying effective ways / strategies etc. to solve the problems they encounter.

*Giving examples from their own experiences/telling memories, stories while thinking about the above issues

How do you think the tasks within the scope of this course and the reports you will prepare will contribute to you?

To facilitate a comprehensive self-evaluation, students were told that they could consider the following ways to answer this question.

*Explaining the role of the reports they wrote on the duties/responsibility within the scope of “Guidance Practices in Schools I” course in terms of self-monitoring and better evaluation.

*Reflecting on the role of report preparation processes (dwelling on practices, writing, explanation) in gaining self-control skills.

*Thinking about the situations in which s/he had difficulties while writing the reports, determining which ways s/he should follow to overcome these difficulties.

In the study, a total of 12 synchronous sessions were conducted, and in each session, the researcher asked questions to encourage students to share their experiences in schools during their internships. The purpose of asking these questions is to facilitate the improvement of students' metacognitive skills during their internship experiences. In this study, synchronous online meetings were structured with the aim of improving students' metacognitive awareness through guided reflection questions. The sessions were not treated as a source of data, but rather as intentional pedagogical contexts designed to trigger reflective and metacognitive thinking. Therefore, the video recordings of these meetings were not subjected to qualitative analysis, to ensure methodological focus and analytic manageability. The goal was for prospective psychological counselors to evaluate their internship experiences in schools more consciously. At the end of this meticulous process, in the interviews conducted with the prospective psychological counselors, the goal was for them to evaluate themselves more effectively and respond more mindfully to the questions. Here, the aim was not to generalize but to identify what aspects were improved in prospective psychological counseling



teachers, who were observed to experience intense anxiety and excitement at the beginning of their internship, by providing support throughout the internship period to foster metacognitive thinking—an essential competency believed to help them during this process.

METHOD

Model of the Research

The research was carried out by qualitative method. Qualitative case study was conducted. Yıldırım and Şimşek (2018) stated that the most distinctive feature of the qualitative case study is the in-depth investigation of one or several situations, and how the factors related to the situation affect the situation or how they are affected by the situation are investigated with a holistic approach.

Formation of Study Group for Qualitative Data

The participants of the study consisted of two groups of prospective teachers undertaking internships as part of the Guidance Practices I course. One group included six participants interning at a primary school with a low socioeconomic status, while the other group comprised six participants interning at a high school with a middle socioeconomic status. Participation in the study was based on voluntary consent. In qualitative research, the primary aim is not to generalize findings to a broader population, as is often the case in quantitative studies, but rather to explore and understand phenomena in depth by gathering rich and detailed data. In this study, the inclusion of two distinct groups of prospective teachers—one interning at a primary school with a low socioeconomic status and the other at a high school with a middle socioeconomic status—was intentional and grounded in this principle. The rationale for selecting participants from two different socioeconomic and educational contexts was to capture the diverse experiences, challenges, and reflections of prospective teachers working in varied school environments. This approach allows for a more comprehensive understanding of how contextual factors, such as the socioeconomic status of the school and the developmental stage of the students (primary vs. high school), influence the teaching practices, professional growth, and perceptions of prospective teachers. By examining these two distinct groups, the study aimed to uncover the nuanced ways in which the school environment and student demographics shape the internship experiences of prospective teachers. Such a design enhances the depth and richness of the data, providing valuable insights into the interplay between context and practice, which might otherwise remain unexplored in a more homogenous sample. This methodological choice aligns with the goals of qualitative research, emphasizing the importance of context-specific, detailed, and multifaceted data to better understand the phenomenon under investigation.

Data Gathering Tool

Interview Form

A semi-structured interview form consisting of 9 open-ended questions, which allows for obtaining detailed responses regarding students' internship practices and experiences, was used.

The questions aimed to get responses regarding the following aspects:

- Prospective teachers' awareness of the concept and significance of metacognition in their practices.
- Their ability to develop and implement effective plans to ensure the efficiency of school-based practices and the quality of the reports they prepare.
- Their self-assessment concerning their proficiency levels, including the identification of their strengths and weaknesses in relation to the tasks undertaken during school practices.
- The situations they have observed in the practice school that have influenced them, as well as the alignment between these observations and their initial expectations.
- The extent to which the responsibilities assumed in the practice school influence their levels of anxiety.
- The impact of the responsibilities undertaken in the practice school on their motivation.
- Their perceptions of the contributions of practical training at the practice school to their professional development, and the specific ways in which it facilitates this growth.



- Their views on the contributions of course-related duties and the preparation of reports to their learning and professional competencies, and the specific ways these experiences enhance their development.
- Their self-evaluation regarding how they overcame the challenges they faced in relation to the tasks and responsibilities within the scope of internship practices during this period, as well as the improvements and changes they observed in themselves.

Data Gathering Process

The data were obtained through semi-structured interviews conducted individually with each prospective teacher. For each participant, an interview appointment was scheduled at the researcher's office in the faculty, and face-to-face interviews were carried out. During the interviews, particular attention was paid to avoid any leading or suggestive behavior, and an objective process was followed to ensure the reliability and validity of the data collection. The interview data were transcribed and transferred to a digital format without delay.

Analysis of Data

The data in all the reports written by the students, the data of the interviews with the students were analyzed by qualitative inductive content analysis. Yıldırım and Şimşek (2018) underlined that the principle of induction is dominant in qualitative research and stated that the researcher is in an effort to reveal the themes related to the research problems in question and to form a theory from the detailed data obtained. With inductive content analysis, it is aimed to examine the data in depth and to avoid data loss.

Validity and Reliability Studies

In this study, the identities of the 12 prospective psychological teachers who participated in qualitative semi-structured interviews were kept confidential during the analysis of the data obtained. Accordingly, a unique labeling system was developed for each participant. The labeling system includes the participant's label number based on the order of the interview, as well as information regarding the educational level and socio-economic status of the school where they completed their internship. The labels consist of three main components to identify each participant: (1) a student number indicating the order of the interview (e.g., "S1" represents the first participant), (2) the educational level of the internship school (e.g., "P" represents primary school, while "H" represents high school), and (3) the socio-economic status of the environment where the internship school is located (e.g., "L" indicates a low socio-economic level, while "M" indicates a medium socio-economic level). For instance, the label "S1-P_L" indicates that the first participant completed their internship at a primary school in a low socio-economic environment. Similarly, the label "S2-H_M" indicates that the second participant completed their internship at a high school in a medium socio-economic environment. The primary purpose of using this labeling system was to both protect the participants' identities and present the context of the data in a clear and understandable manner. The labeling system enhances the methodological transparency of the study and allows for systematic analysis of the differences among participants. Furthermore, this system enables the consideration of contextual factors (such as school level and socio-economic status) that may influence the participants' internship experiences.

To increase the reliability of the qualitative coding process, a meticulous analysis procedure was followed in this study. The researcher ensured the reliability of the coding process by re-coding the data at different time intervals and proceeding carefully throughout the process. The codes were reviewed and reassessed at each step to ensure alignment with the research questions and accuracy. An inductive content analysis method was adopted during the coding process. Accordingly, codes were meticulously created based on the data obtained, and these codes were then categorized in alignment with the core questions and purpose of the study. Relationships among the categories were carefully examined, leading to the derivation of higher-level themes that provided greater coherence. Throughout this process, each code was carefully evaluated to ensure that it preserved its meaning



within the dataset. These detailed examinations during the coding process strengthened the reliability of the research and supported the validity of the findings. In conclusion, the coding process was carried out involving a systematic effort to deeply analyze the data and address the research problem.

RESULTS

The findings of this study highlight the diverse perspectives of prospective guidance and psychological counselors on the concept of metacognition, revealing its multidimensional nature and its association with individual experiences. Participants demonstrated a nuanced understanding of metacognition, which was categorized into **nine key themes**:

1. Definition of Metacognition

The participants' responses to the research question "*What do you think metacognition is?*" provide insights into their awareness and understanding of the concept. Metacognition is described through various dimensions, including cognitive awareness, behavioral control, mental process management, synthesis of knowledge, self-awareness, and problem-solving strategies. The findings are summarized in the Table 1, accompanied by direct quotes to illustrate each theme.

Table 1. Definition of Metacognition

Category	Codes	Percentage (%)
1. Definition of Metacognition	- Awareness of cognitive processes - Thinking about thinking - Recognizing thinking styles	25% 20% 15%
2. Awareness and Control of Behaviors	- Conscious time allocation - Reflecting on reasons and consequences of actions - Conscious procrastination	15% 10% 10%
3. Management of Mental Processes	- Planning mental activities - Monitoring and evaluating cognitive processes	20% 15%
4. Synthesis and Application of Knowledge	- Synthesizing knowledge - Functional application of theories	10% 10%
5. Self-Awareness	- Recognizing personal strengths and limits - Viewing oneself from different perspectives	15% 10%
6. Problem Solving and Strategy Development	- Developing problem-solving strategies - Improving weaknesses and enhancing strengths	15% 10%

Most participants defined metacognition as the awareness of one's own thinking processes and the ability to manage these processes.

S1-P_L:

"It is the knowledge about cognition. It involves being aware of what we know, how much we know, how we know it, and our learning characteristics while performing certain tasks."

S5-P_L:

"Metacognition is the awareness of one's own thoughts. It can also be described as thinking about thinking."

S10-H_M:

"Metacognition means being aware of our own thinking style. This awareness allows us to develop our own learning strategies."

This category highlights the importance of cognitive awareness and understanding in metacognition.

Participants linked metacognition to being aware of one's own behaviors and consciously managing them.



S2-H_M:

"Metacognition is being aware of the time one allocates for themselves. It means consciously implementing what they do."

S2-H_M

"For example, if I knowingly complete my assignments at the last minute or study for exams at the last moment, this is metacognition."

S6-H_M:

"Metacognition is being aware of what one can do and acting while thinking about the reasons and consequences of their actions."

This category emphasizes the role of metacognition in managing behaviors and reflecting on actions.

Participants viewed metacognition as the planning, monitoring, and evaluation of one's mental processes.

S3-P_L:

"It is being aware of one's own thinking processes and being able to control them. It involves planning what one will do regarding their mental activities and evaluating themselves."

S11-P_L:

"Thinking about thinking, planning, monitoring, and evaluating. For instance, when I look at my weekly reports, I think about how I did them and whether I could have done them better."

This category highlights the significance of metacognition in organizing and improving mental activities.

Participants associated metacognition with synthesizing information and using it functionally.

S7-H_M:

"Metacognition is synthesizing all our knowledge and using it in a functional way. For example, this semester we are practicing individual psychological counseling, and we synthesize all the knowledge. Depending on the client, we select a specific theory."

S8-P_L:

"Metacognition is thinking about our own thinking, controlling it, and understanding it in a more positive and conceptual way. This helps us direct our thoughts in a more organized manner."

This category demonstrates how metacognition supports the practical application of theoretical knowledge.

Participants linked metacognition to awareness of oneself and one's limits.

S9-P_L:

"Metacognition is being aware of oneself. By thinking about thinking, it allows individuals to view themselves from different perspectives."

S12-H_M:

"For example, realizing that high school-level teaching is more suitable for me, but middle school-level teaching is not, falls under metacognition, in my opinion. High school students are a bit more mature and quiet, which makes me feel that high school teaching suits me better."

This category highlights how metacognition contributes to self-awareness and personal development.

Participants linked metacognition to the ability to develop effective strategies during problem-solving processes.

S10-H_M:

"When we encounter a problem, we can develop effective problem-solving strategies thanks to metacognition."

**S7-H_M:**

"This time, your awareness increases, and you try to improve your weaknesses while enhancing your strengths."

This category underscores the role of metacognition in improving problem-solving skills and strategies.

The participants' statements demonstrate a multidimensional understanding of the concept of metacognition. Metacognition is associated with various skills, such as being aware of one's own thinking processes, managing these processes, synthesizing information, developing self-awareness, and creating problem-solving strategies. The direct quotes from participants reinforce these findings and highlight the significance of metacognition in individual learning and development.

2. Planning Skills

The participants' responses to the research question *"Did you plan to ensure the efficiency of your practices at the internship school and the quality of the reports in your practice file? What approach did you follow while planning?"* provide insights into their planning skills during the internship process. Participants shared diverse approaches to planning, ranging from systematic preparation to collaboration and communication, which significantly impacted the quality of their reports and the efficiency of their practices. The findings are summarized in the Table 2, accompanied by direct quotes to illustrate each theme.

Table 2. Planning skills.

Category	Codes	Percentage (%)
1. Approach to the Planning Process	- No detailed planning but focused on research	20%
	- Systematic weekly planning	15%
	- Observing during initial weeks	10%
2. Reporting and Note-Taking Strategies	- Instant note-taking and detailed reporting	20%
	- Draft preparation before finalizing reports	15%
	- Collecting data like photos, notes, and audio recordings	10%
3. Preparation Before and During the Internship	- Using course syllabus for planning	20%
4. Collaboration and Communication	- Reviewing weekly tasks and brainstorming ideas	15%
	- Choosing group partners carefully	10%
	- Exchanging ideas with counselors	10%
5. Impact of Planning on Practices and Reports	- Supporting practices with research, observation, and rehearsal	15%
	- Using reports to identify shortcomings and improve planning	10%

Participants adopted different planning approaches during their internship. While some stated that they did not engage in detailed planning, others demonstrated a systematic approach.

S1-P_L:

"I didn't engage in very detailed planning. I simply conducted various research to increase my knowledge about the practices I was going to perform."

S1-P_L

"Afterward, I researched activities suitable for the audience the practice would address and used the best ones in the implementation."

S3-P_L:

"Every week, I made sure to write down what I did during the internship and the tasks I fulfilled under the task headings in the practice file, usually on weekends, in an organized manner."



S4-H_M:

"Since it was my first time doing an internship and I didn't know what I should or shouldn't do, I spent the first one or two weeks observing."

This category highlights the diversity of planning approaches, ranging from research-focused methods to systematic weekly planning.

Participants developed various methods to write their reports regularly and keep notes.

S2-H_M:

"When we went to the internship school, I took short notes on my phone about what we did there so I wouldn't forget. Later, I tried to transfer them into detailed reports as much as I could."

S6-H_M:

"On the night of the day I worked, I prepared a draft of how I would write my reports and wrote them according to that draft."

S11-P_L:

"At school, I took necessary photos, notes, and sometimes audio recordings with the counselor's permission. I reported them regularly and created a dedicated folder for them on my computer."

This category emphasizes the importance of regular note-taking and reporting for memory support and improved report quality.

Participants supported the planning process by preparing both before and during the internship.

S7-H_M:

"The course syllabus was very helpful in my planning. Without it, planning on my own might have been difficult."

S7-H_M

(on

brainstorming):

"Before the internship, I started looking at what I needed to do that week a day or two earlier. I tried to come up with ideas about what I could do."

S8-P_L:

"We were already doing extra preparation with our friends, but apart from that, I researched classroom activities. I thought about how I could do better."

This category demonstrates how preparation before and during the internship positively impacted participants' practices.

Participants expressed that collaboration and communication during the internship positively affected their planning and implementation processes.

S12-H_M:

"Here, I chose my group partner more carefully. I selected a friend I could work well and comfortably with. We were constantly in communication with the psychological counselor and guidance teacher at the internship school."

S11-P_L:

"We preferred to talk to the counselor about the problems we observed at school, discussing what we could do and exchanging ideas."

This category highlights the role of collaboration and communication in enhancing planning and implementation processes.

Participants emphasized the effects of planning processes on the efficiency of internship practices and the quality of reports.

**S10-H_M:**

"For my practices at the internship school, I first went through a detailed research process, followed by observation and rehearsal."

S8-P_L:

"While writing the reports, I realized my shortcomings at some points. I thought I could have done this differently or added that. So, the report for that week was very helpful for planning the next week."

This category underscores how planning processes contributed to the efficiency of practices and the improvement of report quality.

The findings of the study reveal the diversity of planning approaches adopted by prospective teachers during their internship process and the impact of these processes on the efficiency of practices and the quality of reports. Participants used various methods such as observation, note-taking, reporting, collaboration, and preparation, which significantly contributed to their internship process and individual development. Their statements demonstrate that planning is critically important for both individual growth and professional experience.

3. Perception of Self-Competence Levels

The self-evaluations of participants as prospective psychological counselors and guidance teachers provide various insights into their perceptions of professional competence, strengths, and areas for improvement. Participants shared diverse perspectives on their competence levels, identifying both strengths and developmental areas. These findings are supported by direct quotes from participants' statements and summarized in the Table 3.

Table 3. Perception of self-competence levels.

Category	Codes	Percentage (%)
1. Perception of Professional Competence	- Confidence in competence during practice - Competence in specific tasks but lack of experience - Recognition that competence develops post-graduation	20% 15% 10%
2. Strengths	- Communication skills - Empathy and patience - Quick adaptability	20% 15% 10%
3. Weaknesses and Areas for Improvement	- Preference for improvisation over systematic work - Introversion and emotional sensitivity - Forgetfulness and difficulty with catharsis	20% 15% 10%
4. Professional Development and Goals	- Pursuing further education - Improving communication with introverted students - Enhancing creativity in tasks	10% 10% 15%
5. Impact of Supportive Environment	- Positive influence of guidance counselors and peers - Reduced anxiety through interaction with students	15% 10%

Participants generally perceived themselves as competent in school counseling practices while recognizing challenges stemming from lack of experience and initial difficulties.

S1-P_L:

"I think I was more than sufficient in the practice we carried out at our school."

S2-H_M:

"I don't think I was very unsuccessful at school because we conducted individual tests and presentations. In these situations, I felt competent and thought I communicated well with students. But I'm not as experienced as a seasoned counselor."



S4-H_M:

"Graduating from the counseling and guidance department doesn't mean you've become a fully competent counselor."

This category highlights participants' confidence in their competence, while acknowledging the importance of experience for professional growth.

Participants identified their strengths in professional practices, such as communication skills, empathy, patience, and quick adaptability.

S3-P_L:

"We had a great and beneficial activity and seminar process with the students. I established good communication and, despite being a new teacher in their class, I adapted to them and made them like me."

S6-H_M:

"I think my strength is that I didn't have much difficulty establishing relationships with students."

S7-H_M:

"I think perseverance is my strength. When you want something and do it with love, success always follows."

S12-H_M:

"I can adapt quickly; for example, I resolved my shyness problem by adapting quickly."

This category highlights the diverse strengths participants bring to their professional roles.

Participants identified areas for improvement in their professional practices and emphasized their efforts to address these weaknesses.

S1-P_L:

"My weakness is that I prefer improvisation over planned and systematic work. However, I can say that I've started to improve this trait."

S4-H_M:

"If I were to give an example of my weaknesses, I'd say being a bit introverted. I'm confident that I'll overcome this by seeking counseling soon and, after graduating, I'll reach a level where I can best support people with the education I've received."

S6-H_M:

"The most challenging part of the interview was being overly emotional. Although I didn't experience catharsis with the student, I think this trait might make professional life difficult for me."

S8-P_L:

"I'm a bit forgetful. I can't say I'm very familiar with every detail of students' situations or family circumstances. Also, I'm very emotional; there were students with very low socioeconomic status, and every time I saw them, I felt very upset and internalized it."

This category highlights participants' awareness of their developmental areas and their determination to address them.

Participants recognized their professional shortcomings and set goals to improve these areas.

S4-H_M:

"I realized my shortcomings in theories, techniques, and practices, and I'm eager to take training in these areas. After graduation, I'll do my best to pursue these trainings."

S10-H_M:

"My weakness was my inadequacy in reaching introverted and shy students. I think I need to improve myself in this area."

**S12-H_M:**

"For example, I could be more creative in designing bulletin boards. My creativity was lacking there; I just printed materials, and my group partner helped more."

This category demonstrates participants' motivation to develop their professional skills and set actionable goals.

Participants expressed that a supportive environment during the internship (including guidance counselors, peers, and students) positively contributed to their professional development.

S12-H_M:

"The school's psychological counselor and guidance teacher were very friendly, and I also had a good relationship with my friends, which helped me overcome this easily. If it had been a more gloomy environment, I probably wouldn't have been able to overcome it."

S9-P_L:

"After interacting with the students and meeting with the school counselor and guidance teacher, I started managing these situations better."

This category highlights the importance of a supportive environment in fostering professional growth.

The findings reveal that prospective psychological counselors and guidance teachers are aware of their professional competence, strengths, and areas for improvement. Participants emphasized their efforts to develop themselves, supported by the positive impact of a supportive environment. These findings demonstrate high levels of professional awareness and motivation for growth among prospective psychological counselors and guidance teachers.

4. Observed Situations in the Internship School and Alignment with Expectations

Participants' observations in internship schools revealed various experiences that shaped their professional perspectives. These observations and their alignment with participants' expectations provide valuable insights into their professional development. The findings are summarized in the Table 4, accompanied by direct quotes to illustrate each theme.

Table 4. Observed situations in the internship school and alignment with expectations.

Category	Codes	Percentage (%)
1. Motivating Effect of Challenging Conditions	- Challenging conditions increased professional motivation	25%
	- Satisfaction from connecting with students	20%
2. Socioeconomic Level of School and Educational Conditions	- Disappointment due to low socioeconomic levels	20%
	- Poor physical conditions of the school	15%
	- Socioeconomic challenges observed through students' habits	15%
3. Alignment Between Expectations and Reality	- Keeping expectations low to avoid negative effects	15%
	- Conditions fell below expectations	20%
	- Internship school exceeded expectations	10%
4. Role of Psychological Counselors and Supportive Approaches	- Supportive role of school counselors	20%
	- Collaborative response to crisis situations	15%
5. Communication with Students and Observed Differences	- Variety of issues students brought to counseling exceeded expectations	15%
	- High awareness among students with mixed effects	15%
6. Behavior of Parents and School Culture	- Parents treating the school environment as a social space	10%
	- Parents interfering in education and lack of communication with teachers	15%



Some participants expressed that challenging conditions in internship schools increased their professional motivation.

S1-P_L described the challenging school environment as motivational:
"The school where I conducted the practice was entirely encouraging in terms of struggles. Despite many negative situations at the school, their existence increased my internal motivation."

They also noted that these conditions enhanced their effectiveness and ambition in practices:
"And it made me more effective and ambitious in the practices conducted for the students."

S7-H_M highlighted the lack of psychological counselors and heavy workload as obstacles but found satisfaction in connecting with students:
"But the positive aspects, such as bonding with students, their sincerity, and their approach to you, are very fulfilling. Seeing that you can truly touch someone's life is the most fulfilling thing."

Participants observed the impact of socioeconomic levels on students and evaluated how these observations aligned with their expectations.

S8-P_L expressed disappointment in working at a school with low socioeconomic levels:
"From what I heard from my friends, I was a bit disappointed because we went to a school with very low socioeconomic levels. Before adding anything to the students, they had such serious issues that they needed to overcome them first."

S9-P_L noticed the socioeconomic challenges through students' clothing and habits:
"At the beginning of the internship, I realized that the students' socioeconomic level was very low. Their clothing—most didn't have proper attire, and some had torn ones—and their inability to buy much from the canteen indicated this."

S11-P_L highlighted the poor physical conditions of the school and socioeconomic struggles:
"There wasn't sufficient space around the school for students, or there were structures that could pose risks. The building was in poor condition, and there were heating problems during the winter."

Participants evaluated the alignment between their expectations and the realities they experienced in internship schools.

S1-P_L noted that keeping expectations low helped avoid negative effects during challenging times:

"I didn't have high expectations from our school. Having expectations would have negatively affected me during this challenging process."

S5-P_L shared that the conditions fell below their expectations:
"I was very surprised to see such a school in Aydın province. If this is the situation in a developed city, I can't even imagine rural or eastern schools. In this regard, it was below my expectations."

S12-H_M stated that the internship school exceeded their expectations:
"The internship school was above my expectations. I expected a much lower level."

Participants observed the roles of psychological counselors in internship schools and emphasized their supportive and collaborative approaches.

S1-P_L expressed satisfaction with the supportive role of the school counselor:
"My most important expectation was for the school counselor to be supportive and encouraging in practices with us. This expectation was more than fulfilled."

S4-H_M found the counselors' quick and collaborative response to crisis situations impressive:



"I was very happy to see three school counselors who happened to be there immediately trying to come up with solutions and planning what to do."

Participants observed students' awareness, behaviors, and diversity of issues, which impacted their professional perceptions.

S2-H_M noted that the variety of issues students brought to the counseling service exceeded their expectations:

"Actually, my expectation was that students would come to the counseling service for simple reasons like exam anxiety. But the variety of issues caught my attention. For example, a problem related to boy-girl relationships was brought up, and that caught my interest."

S6-H_M observed students' high level of awareness and its mixed effects: *"I was surprised by how aware the students were. While this has positive aspects, I think it also has negative aspects. They have a lot of anxiety, which negatively affects their experiences."*

Some participants observed the attitudes of parents within the school environment and their impact on students.

S3-P_L was surprised by parents treating the school environment as a social space: *"I was very surprised by the parents' disregard for rules and spending the entire day in the schoolyard. Also, during lunch breaks, parents fed their children as if they were having a picnic in the schoolyard, and they did this constantly."*

S11-P_L noted parents' interference in education and lack of communication with teachers: *"Parents are normally not allowed to enter the school, but they interfere a lot. I observed a lack of communication between parents and teachers."*

The findings of this study highlight the diverse observations of prospective guidance and psychological counselors during their internship experiences. Key themes included the motivating effect of challenging conditions, the impact of socioeconomic levels on education, alignment between expectations and reality, the supportive roles of psychological counselors, communication with students, and the influence of parents on the school environment. These observations significantly contributed to participants' professional awareness and provided valuable insights for their future practices.

5. The Impact of Responsibilities on Anxiety

Participants' anxiety levels during the internship period were analyzed based on the responsibilities they undertook and the experiences they gained throughout this process. The findings are summarized in the Table 5, accompanied by direct quotes to illustrate each theme.

Table 5. The impact of responsibilities on anxiety.

Category	Codes	Percentage (%)
1. Initial Anxiety and Uncertainty	- Feeling overwhelmed by the volume of tasks	25%
	- Anxiety due to unfamiliarity with the institution	20%
2. The Impact of Responsibilities on Anxiety	- Responsibilities reduced anxiety	20%
	- Responsibilities brought mental alertness without causing negative anxiety	15%
	- Initial overwhelm transformed into manageability	15%
3. Planning and Mentor Support	- Planned work reduced anxiety	20%
	- Mentor support alleviated anxiety	15%
	- Two-way communication with mentors reduced stress	15%
4. Task Difficulty and Physical/Mental Fatigue	- Exhaustion due to task intensity	15%
	- Overlap of internship tasks with coursework increased anxiety	20%

**Table 5 (Continued).** The impact of responsibilities on anxiety.

Category	Codes	Percentage (%)
5. Decrease of Anxiety and Adaptation Process	- Successful task completion reduced anxiety	20%
	- Initial anxiety transformed into satisfaction	15%
	- Enjoyment of tasks after adaptation	10%
6. Exam Periods and Intensity	- Increased anxiety during exam periods	15%
	- Stress due to overlapping tasks and exams	10%
7. Contribution of Tasks to Personal Development	- Tasks contributed to professional growth	20%
	- Individual counseling sessions enhanced development	15%

During the first weeks of the internship, many participants experienced high levels of anxiety due to the intensity of the tasks and the uncertainty involved.

S3-P_L expressed feelings of inadequacy upon seeing the internship tasks for the first time: *"At first, when I saw the tasks we had to complete for our internship file and when our instructor explained them, I thought there were too many tasks, and I felt I lacked the necessary skills to accomplish them."*

S8-P_L mentioned feeling anxious due to the sheer volume of tasks in the guide: *"When we first started, reading through that guide made me very nervous because there was so much to do, and I didn't know anything. It was my first time doing this, and I was very anxious about how I would manage."*

S5-P_L shared that the idea of interning at an unfamiliar institution caused initial anxiety: *"At first, I was very anxious because it was my first time going to a foreign institution outside of the university."*

Responsibilities had varying effects on participants' anxiety levels, sometimes increasing anxiety and sometimes alleviating it.

S1-P_L noted that taking on responsibilities reduced their anxiety: *"I admit I was anxious at first. However, once I started taking on responsibilities, I realized that my tasks were not as anxiety-inducing as I initially thought."*

S9-P_L stated that responsibilities brought mental alertness without causing negative anxiety: *"Later on, I realized that these responsibilities actually kept me more mentally alert. They didn't increase my anxiety level that much, to be honest."*

S12-H_M explained that tasks initially seemed overwhelming but became manageable as they were completed: *"At first, I was a bit anxious, honestly. It felt like there were too many responsibilities. But later, I realized the tasks were just intimidating on paper, and they were actually perfectly suited to me."*

Planned work and mentor support played a significant role in reducing participants' anxiety levels.

S3-P_L emphasized the anxiety-reducing effect of working systematically: *"Because I prepared my reports with a planned system, my anxiety levels significantly dropped in the following days."*

S8-P_L highlighted the positive influence of mentor support: *"You had a big impact because you were very aware of our anxiety and worked with us effectively to reduce it."*

S11-P_L noted that two-way communication with the mentor helped alleviate anxiety: *"Being able to contact you easily about the process and your accessibility to us made me feel more at ease."*



Some participants reported experiencing physical and mental fatigue due to the intensity of internship tasks.

S4-H_M described the difficulty of tasks and the exhausting nature of reporting: *"Completing the tasks and reports in the application file, to be honest, wore me out a bit. The sheer amount of work and uncertainty about whether I could manage it caused me a lot of stress."*

S2-H_M mentioned that combining internship tasks with regular coursework increased anxiety:

"When we came home from the internship and worked on assignments and reports, it was hard because it overlapped with schoolwork, making it quite intense."

As the internship progressed, participants' anxiety levels decreased, and they became more comfortable with their tasks.

S6-H_M shared that successfully completing tasks reduced their anxiety: *"However, as I continued the internship, saw the environment, and successfully completed the tasks, my anxiety diminished."*

S7-H_M stated that initial anxiety transformed into satisfaction over time: *"I was more anxious at first, of course, because it was my first time doing something like this. But as I saw that I could manage it, my anxiety turned into a sense of fulfillment."*

S8-P_L mentioned enjoying the tasks after adapting to them: *"Later, the lessons we had with you and the adaptation I achieved at the school gradually reduced my anxiety. In fact, by the end, I started enjoying the tasks a lot."*

The intensity of internship tasks during exam periods increased anxiety for some participants.

S2-H_M explained that exam periods made internship tasks more stressful: *"When it coincided with exam periods, the assignments we had to complete increased our anxiety a bit."*

S9-P_L mentioned experiencing anxiety during midterm and final exams: *"Only during midterm and final exam periods, when there was too much to do, did I experience anxiety."*

Despite their difficulty, many participants viewed the internship tasks as valuable for their personal development.

S4-H_M emphasized the contribution of challenging tasks to personal growth: *"But I knew they contributed to me, so I managed to overcome them in some way."*

S10-H_M highlighted the benefits of individual counseling sessions for psychological and career development:

"The individual counseling sessions we had with students were very beneficial. They greatly contributed to my development in both psychological counseling and career guidance."

Throughout the internship period, participants' anxiety levels were initially high due to the intensity and uncertainty of the tasks. However, factors such as adaptation, mentor support, and successful task completion helped reduce anxiety over time. While the difficulty of tasks caused physical and mental fatigue for some, the overall experience was seen as beneficial for personal and professional development. Additionally, exam periods posed challenges by increasing anxiety levels. These findings demonstrate that the internship process is a significant experience for anxiety management and professional growth.

6. The Impact of Responsibilities on Motivation

The effects of the responsibilities taken during the internship period on participants' motivation were analyzed based on their individual experiences and observations. The findings are summarized in the Table 6, accompanied by direct quotes to illustrate each theme.



Table 6. The impact of responsibilities on motivation.

Category	Codes	Percentage (%)
1. Initial Motivation and Challenges	- Lack of motivation at the beginning - Excitement due to reopening of schools	20% 15%
2. The Impact of Tasks on Motivation	- Positive outcomes increased intrinsic motivation - Application tasks increased eagerness - Repetitive tasks reduced motivation	20% 15% 15%
3. Interaction with Students and Professional Motivation	- Connecting with students increased dedication for the profession - One-on-one communication motivated participants - Positive feedback from students boosted motivation	20% 15% 15%
4. Supportive Factors and Motivation	- Support from mentors increased motivation - Peer support contributed to progress - Encouragement from guiding teachers boosted motivation	20% 15% 15%
5. Challenges and Personal Development	- Awareness of personal growth increased motivation - Heavy workload negatively affected motivation - Challenges brought knowledge and experience	20% 15% 15%
6. Contribution of Responsibilities to Motivation	- Responsibilities were strong motivators - Tasks and responsibilities positively influenced motivation	20% 15%
7. Feedback from Students	- Students' feedback increased motivation - Understanding students' lives boosted motivation	20% 15%

At the beginning of the internship, participants who experienced a lack of motivation noted that their motivation increased as the process progressed, influenced by tasks and responsibilities.

S6-H_M shared experiencing a lack of motivation initially: *"At first, I didn't have much motivation because we were only given a theoretical explanation of the school's working system."*

S3-P_L explained that the uncertainty surrounding internships during the pandemic negatively affected their motivation but felt excited when schools reopened: *"Having studied at home for two years due to the pandemic, the uncertainty about whether I would be able to intern made me quite anxious. Later, the reopening of schools and the opportunity to intern made me very happy and excited."*

Tasks had both positive and negative effects on participants' motivation.

S1-P_L stated that observing the positive outcomes of tasks increased their intrinsic motivation:

"Seeing the reflections of my work at school also increased my intrinsic motivation."

S10-H_M noted that application tasks made them more eager to attend the internship school: *"On the days when we had application tasks, I realized I went to the internship school more willingly. These applications increased my excitement for the internship process."*

S8-P_L mentioned that repetitive tasks reduced their motivation: *"Sometimes it felt like there were very similar tasks, which slightly lowered my motivation. At some point, it felt like I was just repeating myself."*

Direct communication and interaction with students were significant sources of motivation for participants.



S2-H_M expressed that connecting with students increased their dedication for the profession and motivation:

"When I saw that I could connect with students and do the job well, I regained my sense of self-awareness. It made me want to work better and desire this job even more."

S7-H_M highlighted the motivational impact of one-on-one communication with students:

"Because engaging directly with students and feeling that you're helping them motivated me a lot."

S11-P_L emphasized the motivational effect of positive feedback from students:

"When they said things like 'Come back to us, we want to see you again,' it made me feel like I should pursue this profession. That was very motivating for me."

Support from mentors, guiding teachers, and peers had a positive impact on participants' motivation.

S4-H_M noted that the support of the school's psychological counselor increased their motivation:

"The support provided by the school's psychological counselor regarding the application motivated me to do this job and reassured me that I could succeed."

S12-H_M explained how their peer's support contributed to individual progress:

"My groupmate was very helpful in this regard. If I were alone, I wouldn't have been able to progress this much. They helped me a lot in areas I didn't understand."

S8-P_L highlighted the motivational impact of supportive approaches from mentors and guiding teachers:

"Your feedback, the plans we made, and the encouragement from the school's psychological counselor and guiding teacher motivated me. They didn't make us feel inadequate. This increased my motivation both because of you and the guiding teacher."

While the difficulty of tasks sometimes led to a loss of motivation, it also contributed to participants' personal development.

S5-P_L noted the awareness of personal growth gained through tasks:

"Thanks to the tasks, I can see my own development week by week."

S11-P_L explained that the intensity of tasks sometimes negatively affected their motivation:

"To be honest, my motivation wasn't greatly increased because the workload was so heavy that it sometimes overwhelmed me."

S4-H_M shared that the challenges brought knowledge and experience, ultimately increasing their motivation:

"Both at the internship school and in the application file, I faced challenges. But when I thought about the knowledge and experience I would gain from them, I realized they motivated me."

Responsibilities generally had a positive impact on participants' motivation.

S9-P_L described the motivational effect of responsibilities:

"I can say that the responsibilities I took on during the internship were the best motivators for me. As I fulfilled these responsibilities, I noticed that my motivation increased significantly."

S10-H_M expressed that tasks and responsibilities positively influenced their motivation throughout the process:

"The tasks and responsibilities I took on during the internship increased my motivation for the process."

Feedback from students had a motivational effect on participants.

- **S12-H_M** shared that students' feedback increased their motivation:
- "For example, when we prepared the bulletin board, seeing students stop to look at it*



increased our motivation. Later, when we gave presentations, the students' feedback also motivated us."

- **S8-P_L** emphasized the motivational impact of student feedback: *"The feedback I received from them made me very happy. Since there were different students and situations, we had the chance to understand their lives better, which increased my motivation."*

The tasks and responsibilities undertaken during the internship significantly influenced participants' motivation levels. While the difficulty of tasks initially led to a loss of motivation, supportive factors, interaction with students, and the completion of tasks contributed to an increase in motivation as the process progressed. Feedback from students and mentor support emerged as key elements that boosted motivation. Additionally, the tasks' contribution to personal development and professional awareness led to the internship being regarded as a generally positive experience.

7. Contributions of Guidance Practice Training

This study analyzed the gains participants achieved during their 12-week internship period based on their individual experiences and observations. The findings are categorized into seven key themes, supported by direct participant statements.

Table 7. Contributions of guidance practice training.

Category	Codes	Percentage (%)
1. Importance of Psychological Counseling Profession and Identity Development	- Understanding the societal significance of the profession	20%
	- Strengthening professional identity	15%
2. Contributions to Professional Development	- Gaining lasting professional skills	20%
	- Preparing for future career	15%
3. Interaction with Students and Development of Communication Skills	- Increased professional awareness through student interaction	20%
	- Improving communication skills	15%
4. Reinforcement of Theoretical Knowledge Through Practice	- Applying theoretical knowledge in practice	20%
	- Preventing theoretical knowledge from fading without practice	15%
5. Support from Guiding Teachers and Mentors	- Motivational impact of guidance and support	20%
	- Building positive relationships with mentors	15%
6. Insufficiency of Internship Duration and Importance of Diversity	- Criticism of short internship duration	20%
	- Suggestions for diversifying internship applications	15%
7. Challenges and Personal Development	- Overcoming feelings of inadequacy	20%
	- Awareness of personal growth through tasks	15%

Participants gained a better understanding of the societal importance of their profession and strengthened their professional identity during the internship.

S1-P_L emphasized the societal significance of the profession: *"We hold the qualification of being professionals who directly impact people's lives and can provide help in almost any problem they might encounter in life."*

S5-P_L expressed feeling integrated into the profession: *"For 12 weeks, I truly felt like I was part of this profession."*

Participants developed professional skills and stated that the experiences gained during the internship were lasting.



S1-P_L described the internship as a valuable series of professional gains:
"Thanks to our internship activities, I entered a very important series of gains during these 12 weeks."

S3-P_L highlighted the internship's role in preparing them for their future profession:
"I think it prepared me very well for the profession I will pursue in the future."

Direct communication with students increased participants' professional awareness and allowed them to improve their communication skills.

S2-H_M shared that interacting with students heightened their professional awareness:
"When I realized I could connect with students and do the job well, I regained my sense of self-awareness."

S10-H_M explained how their communication skills improved:
"I had the chance to observe students and learned how to establish healthier communication with them."

Participants had the opportunity to apply the theoretical knowledge they learned at university during the internship, contributing to their professional skills.

S6-H_M emphasized the importance of seeing theoretical knowledge in practice:
"The biggest contribution to me was seeing the implementation of the lessons I learned theoretically at university."

S7-H_M noted that theoretical knowledge could be forgotten if not supported by practice:
"We learn things in theoretical lessons, yes, but if we don't apply them in practice, that knowledge fades away."

The support provided by guiding teachers and mentors positively influenced participants' professional development.

S4-H_M highlighted the motivational impact of the guiding teacher's support:
"The support provided by the school's psychological counselor regarding the application motivated me to do this job and reassured me that I could succeed."

S12-H_M described the positive relationship they built with the guiding teacher:
"We had a very good relationship with the school's psychological counselor and guiding teacher. When it ended, we even bought a cake to celebrate."

Participants stated that the internship duration should be extended and the applications diversified.

S3-P_L suggested increasing the duration of the internship:
"I think attending the internship for only one term is very insufficient for students studying in education faculties."

S8-P_L recommended conducting internships at various institutions:
"We definitely need the opportunity to work at different places, such as rehabilitation centers and special education schools."

Participants expressed that the challenges they faced during the internship contributed to their personal and professional development.

S9-P_L shared overcoming initial feelings of inadequacy:
"At the beginning of the process, I honestly didn't know how to approach certain students because I hadn't had such an experience before. I felt quite inadequate at first, but I think I managed to overcome this over time."

S5-P_L noted the awareness of personal growth gained through tasks:
"Thanks to the tasks, I can see my own development week by week."



The 12-week internship period helped participants develop their professional identity, reinforce their theoretical knowledge through practice, and improve their communication skills with students. The support provided by guiding teachers and mentors allowed participants to benefit more from the process. However, the short duration and limited scope of the internship were criticized, with suggestions for extending the internship and diversifying its applications across different institutions. The challenges faced during the internship contributed positively to participants' personal and professional growth.

8. Contributions of Tasks and Reports Within the Scope of the Course

The gains participants achieved through the tasks and report preparation processes within the scope of the course were analyzed based on their individual experiences and observations. The findings are summarized in the Table 8, accompanied by direct quotes to illustrate each theme.

Table 8. Contributions of tasks and reports within the scope of the course.

Category	Codes	Percentage (%)
1. Professional Development and Contributions of Reports	- Reports contributed to professional development	20%
	- Reports helped retain learned information	15%
2. Contributions of Tasks to Professional and Personal Experience	- Tasks enhanced professional experience	20%
	- Tasks contributed to personal confidence	15%
3. Self-Assessment and Awareness	- Reports enabled self-assessment	20%
	- Reports helped identify weaknesses	15%
4. Contributions of Reports to Learning and Knowledge Reinforcement Process	- Reports reinforced learned information	20%
	- Writing clarified knowledge	15%
5. Importance of Planned and Disciplined Work	- Instilled habit of planned and disciplined work	20%
	- Highlighted benefits of weekly report writing	15%
6. Future Utility of Tasks and Reports	- Reports as future reference materials	20%
	- Reports useful for cross-term comparisons	15%
7. Challenges and Shortcomings of Reports	- Delays in report writing led to knowledge loss	20%
	- Regular writing prevents information loss	15%

Participants stated that the report preparation process contributed to their professional development and that the knowledge and experiences gained through this process were lasting.

S1-P_L highlighted the role of reports in professional development: *"I think the reports we prepared helped us build the steps that will serve as a foundation for our professional development."*

S10-H_M emphasized the impact of reports on learning retention: *"The reports we prepared within the scope of this course contributed to making what I learned more permanent."*

Tasks increased participants' professional experience, instilled a sense of responsibility, and contributed to their personal development.

S2-H_M stated that tasks enhanced their professional experience: *"I can say that the tasks I performed increased my experience."*

S4-H_M noted the impact of tasks on personal confidence: *"I think the tasks helped me come out of my shell and be more relaxed."*

The report-writing process enabled participants to evaluate themselves and recognize their shortcomings.



S7-H_M described the impact of reports on self-assessment: *"At first, I think the weekly reports contributed the most to me by allowing me to look at myself as if from the outside."*

S8-P_L explained how reports helped them identify weaknesses: *"Normally, I'm not someone who likes to criticize myself, but while writing the reports, I always saw a deficiency in myself. I also saw positive aspects, but I started noticing my shortcomings more."*

Report preparation reinforced learned information and provided a concrete evaluation of the activities performed during the process.

S6-H_M highlighted the role of reports in knowledge reinforcement: *"I gained preliminary knowledge about how to document the activities we will implement in schools."*

S12-H_M emphasized the role of writing in reinforcing learned information: *"When you write it down, it actually becomes clearer."*

Regular report writing instilled participants with the habit of planned and disciplined work.

S11-P_L explained the importance of regular report writing: *"Writing reports every week showed me the importance of being organized, planned, and disciplined."*

S7-H_M compared weekly report writing to writing all reports at once: *"There's a big difference between writing reports weekly and writing them all at once at the end of the term. Of course, writing them weekly is better."*

Participants stated that the reports they prepared could be used as reference materials in the future.

S4-H_M emphasized the future utility of reports: *"Having a source to look back on when I encounter similar situations in the future, like what the psychological counselor at the internship school did, is a significant advantage for me."*

S12-H_M suggested using reports for cross-term comparisons: *"I can compare the reports I wrote in the first term with the ones I will write in the next internship term."*

Participants expressed the difficulties they faced during the report-writing process due to workload and the resulting loss of information.

S7-H_M described the impact of delays in report writing: *"In my current (second term) internship, I'm two or three weeks behind in writing reports. Of course, some things are forgotten during that time."*

S8-P_L emphasized the importance of regular report writing in preventing information loss: *"Writing weekly reports has a huge benefit because some of my friends wrote all 12 weeks' reports in one week and submitted them directly. But nothing stays sufficiently in one's mind."*

The tasks and report preparation processes within the scope of the course remarkably contributed to participants' professional and personal development. Tasks increased professional experience, while reports reinforced learned information and provided opportunities for self-assessment. Regular report writing instilled participants with the habit of planned and disciplined work, and the reports prepared became valuable documents that could serve as reference materials in the future. However, delays in report writing due to workload were noted as a challenge, leading to knowledge loss.

9. Overcoming Challenges and Perceptions of Development

Participants' responses to this theme focused on the strategies they used to overcome challenges, their personal and professional development, and the changes they experienced throughout the internship



process. The findings are summarized in the Table 9, accompanied by direct quotes to illustrate each theme.

Table 9. Overcoming challenges and perceptions of development.

Category	Codes	Percentage (%)
1. Strategies for Coping with Challenges	- Self-motivation in overcoming challenges - Collaboration and consulting others	20% 15%
2. Personal Growth and Behavioral Changes	- Positive personal transformation - Improvements in behavioral control and calmness	20% 15%
3. Professional Development and Preparation	- Development of professional skills - Preparation for future career	20% 15%
4. Anxiety and Stress Management	- Decreased anxiety about tasks - Overcoming anxiety through courage	20% 15%
5. Communication and Collaboration	- Improved communication with students - Enhanced collaboration with peers	20% 15%
6. Classroom Management and Activity Planning	- Progress in classroom management - Overcoming challenges in activity planning	20% 15%

Participants developed various strategies to cope with the challenges they faced during the internship. These strategies included self-motivation, seeking support, problem-solving skills, and collaboration.

S4-H_M emphasized the importance of self-motivation:
"I tried to motivate myself when facing challenges."

S2-H_M highlighted the role of collaboration and consulting others:
"In situations I couldn't resolve by talking or where my experience wasn't sufficient, I would consult other friends."

S5-P_L reflected on ignoring challenges and learning from them:
"Sometimes I ignored the challenges I faced... But when I'm assigned to a position, the first things I'll pay attention to will be those I ignored."

Participants observed personal growth and positive changes in their behavior during the internship process.

S1-P_L described their personal transformation:
"I think I've undergone very positive changes from my state during the first week of the internship to now."

S11-P_L noted improvements in behavioral control and calmness:
"I used to be more anxious and wasn't very calm... I've seen that I can restrain myself better now."

S7-H_M emphasized gaining confidence:
"Of course, I gained confidence in terms of tasks and responsibilities."

The internship process contributed to participants' development of professional skills and preparation for their future careers.

S3-P_L shared how the internship prepared them professionally:
"I didn't feel ready to graduate or start working, but through the tasks I took on during the internship, I learned what I would do in my professional life."

S6-H_M emphasized the future benefits of professional development:
"I think the other activities will be very beneficial for me in my future professional life."

S9-P_L expressed how the process enhanced their competence:
"The process added a lot to me in terms of competence."



Participants stated that they learned to manage anxiety and stress during the internship and made significant progress in this area.

S3-P_L described how their initial anxiety about classroom management decreased over time: *"I was a bit anxious about not being able to maintain control when conducting activities in classrooms. But as I entered classrooms each day, I think I got better at maintaining control."*

S12-H_M emphasized overcoming anxiety through courage: *"Challenges always start with anxiety, like 'I won't be able to do it,' etc. Later, taking a step or finding courage actually helps."*

S11-P_L noted how reduced anxiety improved their performance: *"If it were the old me, I'd be more stressed... but I saw that I could accomplish things better when I was more relaxed."*

The internship process allowed participants to develop their communication and collaboration skills. Relationships established with students and colleagues enhanced their professional awareness.

S3-P_L observed improvements in communication with younger students: *"I was someone who could establish good communication, but I observed that I could also communicate well with students younger than me and make them like me."*

S12-H_M highlighted the importance of collaboration with group members: *"My group friend helped me a lot in overcoming this... we have a very good friendship now."*

Participants expressed initial difficulties in classroom management and activity planning but noted improvements in these skills over time.

S8-P_L described their progress in classroom management: *"I struggled with classroom practices and had difficulties in classroom management, but as the number of practices increased, it became easier and more enjoyable for me."*

S6-H_M explained the challenges of planning activities: *"Choosing information suitable for the target audience of the activity and capturing their attention was challenging."*

The internship process enhanced participants' ability to cope with challenges, contributed to their personal and professional development, and boosted their confidence. Participants made progress in managing anxiety and stress, improved their communication and collaboration skills, and overcame initial difficulties in classroom management and activity planning. These experiences significantly contributed to their preparation for professional life and their overall growth.

Metacognitive Thinking Strategies Used by Prospective Psychological Counselors

This study analyzed the multidimensional skills of prospective counselors, including metacognitive awareness, managing thought processes, planning, evaluation, and problem-solving during their 12-week internship. Metacognitive strategies such as self-awareness, planning, monitoring, evaluation, and problem-solving were explored in six key themes, supported by direct participant statements.

Table 10. Metacognitive thinking strategies used by prospective psychological counselors.

Category	Codes	Percentage (%)
1. Awareness of Cognitive Processes	- Understanding one's learning strategies	20%
	- Reflecting on thoughts and identifying strengths and weaknesses	15%
2. Regulation of Behavior and Emotional Control	- Awareness of time and behavior regulation	20%
	- Managing emotional responses in professional settings	15%



Table 10 (Continued). Metacognitive thinking strategies used by prospective psychological counselors.

Category	Codes	Percentage (%)
3. Planning and Monitoring Cognitive Processes	- Setting goals and tracking progress	20%
	- Evaluating practices systematically	15%
4. Synthesis and Application of Knowledge	- Integrating theoretical knowledge into practice	20%
	- Organizing thoughts conceptually and applying them effectively	15%
5. Self-Awareness and Reflection	- Reflecting on capabilities and limitations	20%
	- Adjusting professional choices based on self-awareness	15%
6. Problem-Solving and Strategy Development	- Developing effective strategies to address challenges	20%
	- Enhancing strengths and addressing weaknesses systematically	15%

Participants demonstrated awareness of their cognitive processes, emphasizing "thinking about thinking" and understanding their learning strategies.

S1-P_L described metacognition as:

"The knowledge about one's cognition. It is being aware of what we know, how much we know, and how we learn while performing specific tasks."

S5-P_L highlighted the reflective nature of metacognition:

"Metacognition is the ability to think about one's own thoughts. It is essentially thinking about thinking."

This awareness allowed participants to identify their strengths and weaknesses, fostering deeper self-understanding and professional growth.

Metacognition involved regulating behaviors and emotions in professional settings. Participants noted that awareness of actions and emotional responses was integral to their development.

S2-H_M linked metacognition to behavior regulation:

"Metacognition is being aware of the time you dedicate to yourself. It is about consciously implementing what you do."

S6-H_M extended this concept to emotional control:

"It is about being aware of what you can do and acting while considering the reasons and consequences of your actions."

These reflections highlight the role of metacognition in managing interpersonal dynamics and maintaining professionalism.

Participants employed metacognitive strategies to plan, monitor, and evaluate their cognitive processes during their internships.

S3-P_L described metacognition as:

"The awareness of one's own thinking processes and the ability to control them. It includes planning what to do, monitoring progress, and evaluating oneself."

S11-P_L shared a practical example:

"When I reviewed my weekly reports, I thought about how I had done them and whether I could have done them better."

This systematic approach enabled participants to refine their practices and improve their overall performance.



Participants reported using theoretical knowledge to address challenges during their internships, showcasing the synthesis and application of knowledge.

S7-H_M explained:

"Metacognition is synthesizing all the information we have and using it in a functional way. For example, in individual counseling sessions, we synthesize all our knowledge and select a specific theory based on the client."

S8-P_L emphasized organizing thoughts:

"Metacognition is thinking about our own thinking, controlling it, and understanding it in a more conceptual and structured way."

This ability to bridge theory with practice underscores the importance of metacognitive strategies in professional training.

Self-awareness emerged as a critical metacognitive strategy, allowing participants to reflect on their capabilities and limitations.

S9-P_L described metacognition as:

"It is the awareness of oneself. By thinking about one's thoughts, it allows individuals to view themselves from different perspectives."

S12-H_M provided an example:

"For instance, I realized that working with high school students suits me better than working with middle school students because high school students are more mature and composed."

This self-awareness guided participants in their professional choices and enhanced their empathy towards others.

Metacognition played a vital role in problem-solving, helping participants develop strategies to address challenges and improve their practices.

S10-H_M emphasized the importance of metacognition in problem-solving:
"Metacognition allows us to develop effective problem-solving strategies when faced with challenges."

S7-H_M highlighted addressing weaknesses:

"It increases awareness, allowing you to recognize your weaknesses and work on them while enhancing your strengths."

This strategic approach reflects participants' ability to adapt to complex situations and improve their professional skills.

The findings reveal that prospective psychological counselors employ a range of metacognitive strategies, including self-awareness, planning, monitoring, evaluation, and problem-solving, to navigate the challenges of their internships. These strategies not only enhance their professional competencies but also contribute to their personal growth. By integrating theoretical knowledge with practical applications and reflecting on their experiences, participants demonstrated the critical role of metacognition in professional development.

DISCUSSION, CONCLUSION, and SUGGESTIONS

This study aimed to explore the metacognitive thinking strategies of prospective psychological counselors enrolled in the "Guidance Practices in Schools" course and how these strategies contributed to their professional and personal development during a 12-week internship. The findings, derived from the responses to nine sub-problems, revealed a multidimensional understanding of metacognition among participants. The results highlighted the importance of metacognitive strategies such as self-awareness, planning, monitoring, evaluation, and problem-solving in navigating the complexities of professional practice. Below, the findings are discussed in light of their implications for counselor education and training.



Participants consistently defined metacognition as the awareness and regulation of their cognitive processes, encompassing recognizing thought patterns, understanding learning styles, and reflecting on strengths and weaknesses, aligning with Flavell's (1979) definition of "thinking about thinking." Their reflective descriptions, such as "thinking about one's own thoughts" or "being aware of how much we know and how we learn," highlighted metacognition's role in deepening their understanding of professional responsibilities and fostering self-reflection essential for effective counseling. Metacognitive strategies were evident in their behavioral regulation and emotional control, as participants managed actions and emotions during stress, emphasizing planning, focus, and composure—key competencies in emotionally charged counseling contexts. Planning, monitoring, and evaluation emerged as vital metacognitive strategies, with participants setting goals, tracking progress, and using structured reflections, such as weekly reports, to enhance continuous learning and professional growth, aligning with Schön's (1983) concept of the "reflective practitioner." Additionally, participants demonstrated the ability to synthesize theoretical knowledge and apply it practically, bridging theory and practice by organizing thoughts and making informed decisions during counseling sessions, underscoring the need for experiential learning in counselor education. Self-awareness was a critical metacognitive strategy, enabling participants to reflect on their capabilities and limitations, guiding career decisions and fostering personal growth through insights into strengths and areas requiring further development. Problem-solving and strategy development were facilitated by metacognition, allowing participants to address challenges creatively and confidently, such as managing classroom dynamics and planning activities, enhancing their professional competence. These findings suggest counselor education programs should integrate metacognitive training, experiential learning opportunities, supportive environments, emotional regulation components, and tools for self-assessment and reflection to cultivate professional effectiveness and personal growth.

The findings of this study underscore the critical role of metacognitive strategies in fostering professional growth, emotional regulation, and adaptive learning. Participants consistently demonstrated an awareness of their cognitive processes and employed reflective practices to enhance their self-regulation and critical thinking skills. These findings resonate with Nur Hidayah et al.'s (2022) emphasis on "mind skills" as essential competencies for counseling trainees. The participants' ability to reflect on their professional roles and responsibilities highlights the importance of integrating metacognitive training into guidance and counseling education programs to enhance adaptive performance.

The study also revealed the importance of behavioral regulation and emotional control in professional settings. Participants reported using metacognitive strategies to manage emotional challenges during fulfilling tasks at internship processes, which aligns with Scandurra et al.'s (2018) findings on the role of emotional regulation and agency in clinical practice. Integrating emotional resilience training into counselor education could further support their professional growth.

Structured training programs and supervision emerged as key components in the professional development of the participants. Continuous feedback, hands-on practice, and reflective evaluations were identified as critical in building counseling skills and confidence, echoing the findings of Sabra and Daigham (2021). Their research highlighted the long-term benefits of intensive training programs, suggesting that sustained supervision and structured interventions can optimize therapeutic outcomes and support the continuous professional growth of counselors.

The findings also emphasize the role of training in enhancing professional self-efficacy, as participants reported significant improvements in their ability to manage tasks through targeted interventions. This aligns with Al-Shraifin's (2015) research, which demonstrated the effectiveness of skill-development models in increasing professional self-efficacy. Similarly, the study highlights the importance of reflective practices and targeted interventions in promoting resilience and adaptability, consistent with the developmental themes identified by Pickard et al. (2023).



This study highlights the importance of metacognitive strategies, such as self-awareness, planning, and reflection, in fostering professional growth and practical competence. Eşkişu et al. (2020) emphasize the role of structured psycho-education programs in enhancing emotional regulation and the ability to apply knowledge effectively. Both studies demonstrate the value of integrating reflective practices and experiential learning into counselor education programs to support holistic development. The relationship between metacognitive strategies and self-efficacy was further supported by Bouchkioua's (2021) findings, which highlighted the impact of training programs on improving self-regulatory skills and learning autonomy. Similarly, this study demonstrated that reflective practices and metacognitive strategies, such as planning and self-monitoring, not only enhanced participants' critical thinking but also fostered their motivation and confidence in addressing complex challenges.

Moreover, the findings align with Swanson et al.'s (2024) emphasis on reflective activities in improving learning strategies and coping mechanisms. Participants in this study reported that self-reflection was instrumental in identifying effective coping strategies, such as breaking tasks into manageable steps which helped sustain their motivation and reduce feelings of overwhelm. These findings reinforce the importance of fostering self-efficacy and motivation in educational interventions.

Coping strategies also played a significant role in managing professional challenges. The findings align with Mahomed et al.'s (2019) emphasis on structured reflection and proactive strategy training in enhancing psychological well-being and professional effectiveness. Furthermore, the study supports Alpindo et al.'s (2024) meta-analysis, which revealed a strong correlation between metacognition and critical-thinking skills, highlighting their interconnected nature in fostering higher-order cognitive abilities.

The study's emphasis on metacognitive strategies as a foundation for professional growth is consistent with Malkoç and Sünbül's (2020) findings on the role of cognitive flexibility in enhancing self-efficacy. Additionally, the alignment with Laia et al.'s (2022) SMART-based management model underscores the importance of structured, goal-oriented approaches in improving professional competencies. Participants demonstrated significant improvements in self-awareness, planning, monitoring, and evaluation, which are key components of both metacognitive thinking and the SMART framework.

Finally, the findings contribute to Abdumunem's (2022) emphasis on interactive and dynamic learning environments in enhancing metacognitive awareness. The use of synchronized lessons and reflective practices in this study provided participants with opportunities to engage in self-regulation and critical thinking, offering additional insights into the benefits observed in synchronous discussions. By asking questions about guidance practices during their internships, participants were encouraged to think more comprehensively and use metacognitive strategies more effectively. This integration of synchronized lessons and reflective practices highlights the potential to foster deeper metacognitive engagement and enhance critical thinking and self-regulation in real-world contexts.

The findings of this study demonstrate that prospective psychological counselors employ a range of metacognitive strategies to navigate the challenges of their internships. These strategies, including self-awareness, planning, monitoring, evaluation, and problem-solving, not only enhance their professional competencies but also contribute to their personal growth. The 12-week internship provided participants with valuable opportunities to develop and refine their metacognitive skills. Through reflective practices, they gained insights into their strengths and weaknesses, developed effective problem-solving strategies, and applied their theoretical knowledge in practical settings. These experiences underline the importance of metacognition as a foundational skill for professional success in psychological counseling.

In conclusion, the study highlights the critical role of metacognitive thinking strategies in psychological counselor education in guidance and counseling practices at schools. By fostering self-



awareness, enhancing problem-solving skills, and bridging the gap between theory and practice, metacognitive strategies prepare students for the complexities of their future roles. The results of this study highlight the importance of metacognitive strategies in enhancing professional competencies and emotional regulation, emphasizing the need for structured training programs and reflective practices to support the holistic development of prospective psychological counselors. Future research could explore the long-term impact of these strategies on professional success and examine how they evolve with experience.

Ethics and Conflict of Interest

Authors declare that they acted in accordance with ethical rules in all processes of the research. The author declares that there are no conflicts of interest related to this work.

Data availability

The data that support the findings of this study are available on request from the corresponding author.

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EXPLORING THE CHALLENGES AND COPING STRATEGIES OF SPECIAL EDUCATION TEACHERS IN BANGLADESH

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Received: July 28, 2025

Accepted: November 11, 2025

Published: December 31, 2025

Suggested Citation:

Rashed, K. R. I., Sharmin, R., & Anam, K. I. (2025). Exploring the challenges and coping strategies of special education teachers in Bangladesh. *Turkish International Journal of Special Education and Guidance & Counselling (TIJSEG)*, 14(2), 194-209.



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Abstract

This study explores the challenges faced by special education teachers and the coping strategies they adopt to address these challenges in a special education school in Bangladesh. This qualitative case study employs semi-structured interviews with six special education teachers, focusing on their experiences teaching students with visual and hearing impairments. The research identifies the specific challenges these educators face, including difficulties in teaching learning, classroom management, using teaching aids, assessment, infrastructural and lack of administrative support. It also investigates their coping strategies, such as personalized teaching methods, classroom management approaches, using assistive technology, teacher training, administrative and colleague support. The study offers actionable insights for educational policymakers, administrators, and teacher training programs, emphasizing the need for improved resources, professional development, and systemic support to enhance the efficacy and well-being of special education teachers.

Keyword: Special education, special education teachers, challenges, coping strategies.

INTRODUCTION

Special education describes specialized curricula created to address the special requirements of students with disabilities which includes a variety of supports and services meant to help students to learn, who might need extra help because of mental, emotional, or physical difficulties (Hakiki, 2023). Special education is a formal educational program offered to individuals (adults and children) who struggle with learning due to various forms of disabilities, blindness, deafness, mental retardation, difficulty adjusting to social situations, physical impairments, health issues, or accidents that occur later in life (NPE 2004). According to Akinade and Suleiman (2010), special education refers to instruction tailored to each student's unique requirements and individual peculiarities. According to HS Chindo (2021) special educational needs may benefit from additional educational services like special equipment, alternative teaching and learning pedagogies, the use of technological devices, and other special interventions tailored to meet their demands and expectations. The schools serve four types of disabled children in Bangladesh: those with autism, intellectual disabilities, hearing impairments, and visual impairments (NFDD, 2013). People with special needs are typically categorized as follows:



Hearing impairment refers to a range of hearing loss, including deafness as defined by IDEA, which severely hinders linguistic processing and academic performance, with deaf individuals primarily relying on vision for communication. (Akinade & Sulaiman, 2010). According to HS Chindo (2021) visual impairment encompasses conditions ranging from partial vision loss to blindness, with visual acuity measured by the ability to see at specified distances on a Snellen chart, where 20/200 defines blindness. Special education teachers support students with disabilities by providing personalized instruction, creating individualized education plans, and fostering an inclusive learning environment in collaboration with educators, parents, and administrators. (CareerExplorer, 2023).

The problems that special education teachers encounter when assisting students with varying learning requirements are referred to as their challenges (Soo, 2023). She added that, teachers' professional experiences and well-being are greatly impacted by the particular problems that are specific to the field of special education. Further mentioned that, teachers in special education face a range of challenges, including inadequate infrastructure, disruptive classroom management, and issues with the teaching-learning process, these issues can significantly impact the quality of instruction provided and the general learning outcomes of students with disabilities. According to Herman et al. (2023) and Garwood et al. (2017), educators experience greater stress and feelings of professional isolation due to the complexity of teaching students with disabilities, which frequently requires specific skills and resources that are not always readily available. The emotional and psychological demands imposed on special education teachers are significant, according to research. The need for individualized instruction, dealing with challenging behaviors in students, heavy caseloads, and the emotional strain of teaching these students all lead to high levels of stress and burnout (Alamdarloo et al., 2023; Sun et al., 2019). Moreover, these problems are made worse by a lack of administrative support and professional development opportunities, which leaves teachers feeling overworked and unprepared (Guo-qiang et al., 2022; Garwood, 2022).

Beaty-O'Ferrall et al. (2010) discovered several techniques or strategies that help teachers effectively control the behavior of their students. They added that, empathy-building techniques, such as fostering understanding, praising positive traits, and setting aside personal ego, enable teachers to connect with students and address their behavioral issues without blame. Further mentioned that, employing indirect strategies and avoiding power dynamics, educators can guide students toward positive behavior changes effectively. According to this study, teachers must establish a connection with all of their students from the most driven to the most challenging in order to effectively manage the classroom.

In Bangladesh, children with impairments have very little opportunities to attend special government schools (USAID, 2005). They added that, many obstacles prevent Bangladeshi special education teachers from effectively providing high-quality instruction to pupils with disabilities. Further mentioned that, these difficulties include systemic impediments that prevent the adoption of inclusive education techniques, a lack of resources and inadequate training. High levels of stress and burnout are caused by the existing educational framework's inadequate response to the special education teachers' unique requirements, which eventually has an impact on student performance and job retention (Ambia & Rahman, 2021; Rahman, 2020). Similar difficulties, such as inadequate infrastructure, a lack of administrative assistance, and problems with classroom management, are faced by special education teachers worldwide. (Wardany & Herlina, 2023; Zulkifli et al., 2019). In underdeveloped nations like Bangladesh, where infrastructure constraints are common, the issue is made more difficult by the lack of access to training and technology (Dutta & Smita, 2020; Al-Amin et al., 2021). Further marginalizing these educators is the prevalent views toward special education, which frequently show a lack of comprehension and support from the community as well as educational authority (Sutarni et al., 2022). For special education teachers and their pupils in Bangladesh to have better educational opportunities, a thorough framework that tackles these problems is essential.



However, there aren't many studies that concentrate on the unique difficulties faced by teachers in this subject, and special education in Bangladesh is still in poor shape. There is a lack of literature that addresses Bangladesh's unique situation, especially in smaller areas like Khulna. A substantial knowledge vacuum exists about how to support and enhance the efficacy of special education in Bangladesh as a result of the lack of targeted research on how these teachers overcome such challenges.

In Bangladesh, special education teachers play a vital role in helping kids with a range of requirements. The unique difficulties experienced by special education teachers in Bangladesh are still not adequately addressed, despite increased global awareness. If the challenges of special education teachers are not removed, the diverse needs of students with disabilities will not be fulfilled. It will not achieve the goal of special education. With the aim of retaining these kids as much as possible in general education classroom activities, special education teachers give them the degree of assistance they require (Fikes, 2022). It is essential to comprehend the coping mechanisms these educators use since this might provide information about possible treatments and policy modifications that could enhance their working environment and in turn, the standard of instruction given to students with special needs. Research indicates that, lack of access to professional development, training and effectiveness of teaching practices among special education instructors (Baldiris et al., 2016).

This study intends to clarify the current situation of special education in Bangladesh and offer suggestions for enhancing the support network for teachers in this crucial area by examining these issues and approaches. This study is important to Bangladesh because it aims to analyze and identify the challenges faced by special education instructors in Bangladesh, thereby providing a deeper understanding of their experiences. Insightful knowledge that could improve instructors' overall wellbeing and job satisfaction will also be obtained from researching coping strategies. The purpose of this research is to explore the experiences of special education teachers in Bangladesh, focusing on the challenges they face and the coping strategies they adopt. My research objectives are:

1. To explore the challenges faced by special education teachers.
2. To explore the coping strategies employed by special education teachers to overcome these challenges.

Literature Review

Challenges of Special Education Teachers

According to Rosemary and Fideli (2016), negative behavior is defined as student conduct that directly or indirectly compromises the efficiency of the teaching and learning process in the classroom. According to Ali et al. (2021), one of the biggest obstacles to giving these pupils fair access to education is a lack of resources.

Teachers in special education (SE) contexts, in particular, deal with emotional and behavioural issues and must establish effective classroom management strategies (Timor 2011). She added that, their biggest struggle is encouraging their children to perform in ways that are socially competent. According to Freundlich et al. (2018), students with sensory impairments frequently struggle with attention. Teachers themselves face the biggest obstacle when it comes to controlling the behavior of children with learning difficulties (Collier-Meek et al., 2018; Toran et al., 2016). This is because there aren't enough training programs to give educators the know-how and abilities, they need to work with pupils who have special needs (Cheng & Toran, 2022).

The use of several senses, including sight, sound, touch, and movement, to aid in learning and teaching special education techniques to assist pupils retain information is known as multisensory learning (Fikes, 2023). He added that, students who struggle with typical teaching approaches, such as those with attention deficit hyperactivity disorder or learning difficulties, benefit greatly from this approach. Further mention that, to help children grasp concepts, a special education teacher may



employ visual aids such as diagrams or images. Additionally, they might use movement to teach social skills or mindfulness, for example, through yoga or dancing. Al-Fadhli (2020) discovered that a major obstacle is the absence of adequate funds for the creation of local adaptations as well as the purchase of suitable instructional materials.

Schools must deal with a number of issues in the assessment of students with special needs because of the technical nature of inclusion, the different specific talents, competencies, resources, and staff expertise. Since each student is different, they should each be evaluated separately, taking into account their particular situation (Bahr et al., 1999). They added that among many other needs, dyslexia, mental retardation, hearing impairment and deafness, vision impairment and blindness, and gifted students are among the difficulties teachers have when identifying and evaluating specific learning needs in the classroom.

Many educational institutions lack the resources and infrastructure required to support students with various disabilities, despite this acknowledgment (Posso-Pacheco et al., 2024). Barrett et al. (2019) discovered that unsuitable physical settings, such as classrooms with poor ventilation, dim lighting, a lack of space, broken furniture, deteriorated recreational areas, and no special access to educational facilities, lead to inequality and impede inclusion. These circumstances have an impact on the standard of educational services, indicating a discrepancy between the laws ensuring sufficient facilities and educational materials for all students and the reality of Ecuador's educational system (National Assembly of Ecuador, 2023; Presidency of the Republic of Ecuador, 2023).

Teachers in special education may have to deal with administrative difficulties such paperwork, bureaucratic roadblocks, and severe workloads sometimes extra duties take away from the time and effort they could devote to engaging students directly (Varlikar, 2023). According to research, special education teachers' primary reasons for quitting were a lack of administrative support, heavy caseloads, the demands of IEP (Individual Education Program) paperwork, isolation, an excessive amount of student needs diversity, and a lack of gratitude from administrators and coworkers for all of their hard work (PratherJones, 2011). Luekens et al. (2004) found that among the 263,500 special education teachers polled, 41.9% gave reasons for moving to a different school or quitting the field entirely as being dissatisfied with administrative support, and 33.9% gave reasons for dissatisfaction with working conditions.

Teachers who taught kids with emotional disorders showed higher levels of burnout than those who taught students with intellectual disabilities (Banks & Necco's, 1990). According to Nichols and Sosnowsky (2002) in self-contained classes, the percentage of students with emotional problems who displayed challenging behaviors was linked to greater levels of teacher burnout. Language, adaptive behavior, and IQ scores among students had a negative impact on teacher satisfaction and necessitated more help in schools (Hastings & Brown, 2002; Ruble & McGrew, 2013). In particular, Embich (2001) showed that team-teaching teachers who were younger, less educated, and less experienced had higher levels of burnout than other teachers.

Coping Strategies of Special Education Teachers

Mahvar et al. (2018) assert that in order to better control students' behavior and minimize the challenges they encounter; educators must adopt a variety of strategies. To effectively regulate behavior, teachers should be knowledgeable about creating and putting into practice suitable solutions (Iberahim et al., 2017).

The way a teacher handles classroom management is one of the main areas where their function is clearly seen (Gyasi et al., 2020). The seating arrangement, teaching strategies, lesson plans, and activities are all taken into account in a classroom management scenario (Shaddock et al., 2007). According to Gyasi et al. (2020) the instructor must determine whether students require extra assistance, such as with vision, and ensure that they have a suitable seat. They added that, these students are typically positioned in front so they can see clearly. Once more, if they have hearing loss,



the similar seating arrangement might be constructed, allowing them to sit in front so they can hear well because of the possible near proximity between their seat and the teacher.

Children with impairments may benefit greatly from the use of suitable technology in the classroom (Malak, 2014). Although a range of educational and assistive technologies are acknowledged as essential components for advancing students with disabilities, their accessibility appears to be limited in Bangladesh (USAID, 2005). According to Huq (2005), government organizations didn't know much about how technology was developing for kids with impairments. As a result, government initiatives to provide educational and assistive technologies for kids with disabilities are unlikely to satisfy real need (USAID, 2005).

In order to help children with learning disabilities develop positive behavior and enhance their academic performance, special education teachers must employ suitable tactics or practices while managing their behavior (Deshmukh, 2016; Ahmad & Abu Hanifah, 2015; Rumfola, 2017). According to Florian and Black-Hawkins (2011), effective teacher preparation programs that incorporate useful techniques like sign language and braille are crucial for raising student achievement. Teachers who work with pupils who have visual impairments need to receive this kind of training since it is equally vital (Tara & William's, 2005). They also highlighted the importance of assistive technology training.

Administrators and teachers are seen as essential to putting inclusive education into practice. Since they are seen as key players in the process of integrating students with disabilities into regular courses, they were essential to the successful implementation of inclusive education (Dalonos, 2013). Administrators promoted a cooperative atmosphere in addition to being helpful and encouraging (Combee, 2014). Their research suggests that the effectiveness and job satisfaction of special education instructors may depend on the establishment of an administrative support system.

Employees within the school, including coworkers, administrators, and support staff, are crucial in helping new teachers understand the demands made of them (Jones et al., 2013). There is evidence that informal support from mentors and colleagues is linked to increased commitment among new special educators, and special educators are likely to rely extensively on their peers for instructional support (Billingsley et al., 2004; Whitaker, 2000).

In the school community, parents and students with disabilities can be greatly empowered by a successful partnership between the home and the school (Stanley, 2008). According to research, collaboration between the family and school is beneficial for students with disabilities (Sheridan et al., 2012; Sointu et al., 2012). The state-supported services remained less functioning, despite the fact that several NGOs engage with families through different programs such home-based rehabilitation and CBR (USAID, 2005).

METHOD

Nature of the Study

The current study uses a qualitative research approach to explore the challenges and coping strategies faced by special education teachers. The challenges and coping strategies that special education instructors face is the central phenomenon of this study. A case study methodology is employed to look into this issue in more detail. According to Creswell (2014) A case study is a thorough investigation of a bounded system that enables researchers to investigate one or more cases in order to obtain understanding of complicated problems. This study chooses exploratory research because it aligns with the research objectives of gaining a deeper understanding of the challenges faced by special education teachers and how they coped with those challenges, a field where limited prior knowledge exists. This study employs purposeful sampling, a strategy widely used in qualitative research to select special education teachers they can provide rich and relevant information about the phenomenon. Furthermore, quota sampling employed to guarantee sample variety. Quota sampling,



according to Creswell (2014), The ratio of responder selection is the same as that of the general population. This approach is relevant for my study, as it ensures the inclusion of both three teachers of visually impaired students and three teachers of hearing-impaired students, allowing me to capture a comprehensive range of experiences and perspectives related to the challenges and coping strategies in special education.

Data Collection

Six teachers make up the sample size for this study. Given its nature, this qualitative study does not require a large sample size in order to generalize. Sorkari Dristi O Bak-Sro bon Protibondhi Bidhyalay (PHT Center) teachers in Khulna are included in the study's population. Six special education teachers will make up the sample; three of them will focus on teaching students with visual impairments and three on teaching students with hearing impairments. As the site of my research, I have chosen Sorkari Dristi O Bak-Srobon Protibondhi Bidhyalay (PHT Center) in Khulna.

I have since used my mobile phone to speak with the head teachers of the schools. They instructed me to visit the school in order to gather data when classes were in session. After that, I went to school with the intention of gathering information through interviews at a specific time. After that, I presented the head teacher with the letter requesting permission to gather data, and they granted it. Before I went to the interview, I had taken consent from the respondents. Give the permission form to each of the six participants one at a time. I begin by letting them know why I'm there. With their assistance, I conducted interviews with them using a signed letter of consent. In order to collect information, I phone-recorded the entire interview with the participant consent.

In the study, participants were provided with detailed information about the goals, scope, methods, and their involvement. Signed consent was secured to ensure clarity and voluntary participation. They were informed of their right to withdraw at any stage without needing to justify their decision. Confidentiality and anonymity were maintained by anonymizing data and restricting access to sensitive materials, such as audio recordings and transcriptions, to the researcher alone. Participation was voluntary, and teachers were assured that their decision to participate or not would bear no negative professional or interpersonal consequences. The data was reported accurately, maintaining integrity by avoiding any distortion or bias. To maintain privacy, I have denoted the teacher as T1, T2 and T3 for teachers of visually impaired students and T4, T5 and T6 for teachers of hearing-impaired students.

Data Analysis

I used thematic analysis to examine the participant data that I have obtained. The procedures of thematic analysis will be as follows: getting acquainted with the data; creating preliminary codes; looking for themes; evaluating themes; defining and labeling themes; and at the end, creating the report, in accordance with Creswell's recommendations. For my research, I chose to conduct my research using an inductive approach to thematic data analysis. According to the inductive technique, which can be characterized as a bottom-up process, the themes, patterns, or codes that are found are closely related to the data itself and without pre-existing assumptions (Patton, 1990; Braun & Clarke, 2006). For my research, I chose to conduct my research using a semantic method to thematic data analysis.

Validity and Reliability

Interviews were conducted in order to gather thorough and in-depth information regarding the experiences of special education teachers. The semi-structured interview style was selected for this study because it supports the goal of examining the difficulties encountered by special education teachers and how they overcame them. This study employs In-Depth Interviews (IDIs). I have shown the interview schedule to an expert to confirm the tool's validity. Two people participated in a tool pilot to verify the instrument's reliability. According to Creswell & Miller (2000) triangulation is a validity approach used by researchers to combine data from several sources. They added that triangulation is a technique or strategy used to improve the validity and reliability of studies or the



assessment of results. I have conducted method triangulation through document analysis and interview to enhance the validity and reliability of my data.

RESULTS

Themes and Sub-themes

Based on the concepts generated by the findings, the themes were inferred. The main concept of the study is:

- I. Challenges of special education teachers
- II. Coping strategies of special education teachers

The sub-themes of challenges of special education teachers are challenges in teaching learning process, challenges towards classroom management, challenges of using teaching aids, challenges of assessment, infrastructural challenges, administrative challenges and burn out. The sub-themes of coping strategies of special education teachers are personalized teaching methods, classroom management approaches, using assistive technology, teacher training, administrative support, Support from the Colleagues and engaging with parents and community.

Table 1. Major themes and sub-themes of the study.

Theme	Sub-theme
Challenges of special education teachers	Challenges in teaching learning process Challenges towards classroom management Challenges of using teaching aids Challenges of assessment Infrastructural challenges Administrative challenges Burn out
Coping strategies of special education teachers	Personalized teaching methods Classroom management approaches Using assistive technology Teacher training Administrative support Support from the Colleagues Engaging with parents and community

Theme 01: Challenges of Special Education Teachers

Challenges in Teaching Learning process

The teachers stated that the visually and hearing-impaired learners pose so many teaching-learning challenges to special education teachers especially in the area of teaching-learning materials and lack of teacher training. They are as follows: lack of resources including Braille, tactile devices, interpreters, and technologies and lack of ways to render complex concepts comprehensible. In case of visually impaired students according to T1,

There has Braille, though not all students have mastery over it. This means that I have to endure and adapt lessons in a manner that makes them low-paced, and less complex as it would be needed for other students with vision.

Regarding hearing impaired students T5 noted that, “One of the challenges I have faced is my school's lack of teacher training and interpreter scarcity.”

Challenges towards Classroom Management

The teachers expressed that some of the issues that teachers who handle special needs classes, particularly those with visual and hearing-impaired students have to deal with. Some of the concerns include: attention problems, transitions from one task to another, access and accommodation as well as individual differences versus group requirements. Regarding visually impaired students T1 noted that, “To gain their attention or to steer their attention without using signs is a challenge.” In case of



hearing-impaired students T6 observed that, “Hearing-impaired students cannot hear the sound signals normally used to maintain order.”

Challenges of Using Teaching Aids

The findings enunciated that the learning process of the visually and hearing-impaired students shows the problems of scarcity of resources, culturally responsive materials and financial limitations. Teachers face the problem of selection of resource that can be universal, appropriate, and readily available; as a result, there are imitative methods used and therefore limited gains. In case of visually impaired students T3 highlighted that, “The majority of the teaching aids available are developed with the ordinary students in mind, especially the ones with no visual impairments.” Regarding hearing impaired students T4 stated that, “It is hard to search for images and sign to use during communication in particular, in Bengali.”

Challenges of Assessment

The findings revealed that evaluating learners with hearing and visual impairment is always a challenge since they are exceptional learners. For instance, teachers say that assessment of abstract knowledge is a challenge, and that putting the tests in accessible formats like braille or tactile tests is challenging. Moreover, there are communication barriers, the slower rate of learning due to language disability that make it difficult to assess their understanding and abilities. Regarding visually impaired students T2 observed that, “Ordinary tests are ineffective in their case... the resources are not fully accessible, it is very difficult to determine if the student has fully understood the topics in question.” In case of hearing-impaired students T4 noted that, “Many of my students are likely to lose some of the verbal instructions that I give, hence making assessments difficult.”

Infrastructural Challenges

The findings exposed that barrier showed that schools for special education are poorly equipped for visually and hearing-impaired students. They are as follows: There are no tactile paths, poor lighting, echoic classrooms, and limited facility to assist a child with learning aids or equipment. Such shortcomings are the ability to become independent, mobile, and effectively learn for students. In case of visually impaired students according to T1, “Tactile paths of travel or paths with braille are crucial for the students with impaired vision but unfortunately our school building is not equipped with them.” Regarding hearing impaired students T4 stated that, “As it is seen in our school, there are no drawing or graphic means, no interactive white board which is necessary for the hearing-impairment students.”

Administrative Challenges

The teachers disclosed that apparently, some administrative concerns that affect the teaching profession in special schools of Khulna are; Less resource availability like Braille textbooks, teaching objects using touch sensation, and assistive technologies, insufficient training for the teaching staff, and financial deficits. Failure to respond timely to the provision of essentials like sign language interpreting technology/ interpreters also worsens the problem, and quality education is denied to students with learning disabilities. Regarding visually impaired students T1 mentioned that, “The administrative body fails to provide sufficient crucial items such as Braille texts and tactile teaching aids, which hinders the full interaction with students.” In case of hearing-impaired students T6 highlighted that, “The school administration reduces our budgets most of the time; this hinders us from purchasing good equipment that includes visual displays, relevant software and hearing aid sets.”

Burn Out

The teachers affirmed that the study of burnout on special education teachers indicates considerable emotional, physical and system-related concerns. Teachers get emotionally drained most of the time because they are overworked, inadequately equipped, plus the stress that comes with handling students with disabilities. These burnout cycles are increased by deficient tools, the absence of support



staff, and systemized obstacles that mean that fighting for resources is a never-ending battle. Regarding visually impaired students T2 observed that,

I believe that my type of burnout is mainly the emotional burnout. With visually impaired students, I get so much challenged and working with them demands so much time and concentration, especially when there is little time for a break.

In case of hearing-impaired students T5 highlighted that, “To me, burnout is all about having to fight for the children I teach and who I have befriended against a system that simply does not care.”

Theme 02: Coping Strategies of Special Education Teachers

Personalized Teaching Methods

The teachers claimed that the instructed way of special education teachers used in Khulna reflects that the main focus of teaching learning activities is based on differentiated teaching learning methodologies to teach every learner differently. Teachers use visual and auditory teaching aids and visually and tactually displayed items and activities for the instruction of visually and hearing-impaired students, as well as individual teaching transactions. Regarding visually impaired students according to T1, “I try to determine how fast every child grasps the information and with what kind of approaches.” In case of hearing-impaired students T6 observed that, “I concentrate on one-on-one sessions so as to allow me to incorporate their individual learning difficulties.”

Classroom Management Approaches

The teachers exposed that special education teachers raise discipline through rewards and incentives strategies, student organization and cooperation, and structured and adapted language skills. These approaches focus on trying to bring an initiative, well-ordered and well-suited environment at school for teaching-learning process for normal children as well as disabled children. In case of visually impaired students T2 mentioned that, “Due to the fact that majority of the students with visual impairment require special attention, I use the sense of touch and hearing to manage students’ conduct and enforce discipline.” While speaking about managing the hearing-impaired students T4 stated that, “I use a lot of hand signals and sign language to address indiscipline in the classroom.”

Using Assistive Technology

The research findings showed that technological aids used by special education teachers include, the screen reader, the braille display, the video magnifier, and the interactive white board for students with visual and hearing impairments. These are strategies to encourage independence, self-esteem as well as acquire technology competence through gradual systematic routing and real-world experiences. Regarding visually impaired students according to T1,

I look at helping students learn and going through the operation on a computer using short cuts along with touching the screen. Besides, it also helps to develop their confidence as well as enable them to search for any relevant information using the Internet on their own.

In case of hearing-impaired students T6 highlighted that, “Every lesson is accompanied with interactive whiteboards and we use speech to sign translation apps.”

Teacher Training

Most of the teachers argued that the training programs improved teachers training on makings modifications of teaching and communication strategies for students with visual and or hearing impairments. These sessions provided teachers with realistic strategies including braille, sign language, and strategies regarding the application of assistive technologies in encouraging participation and self- management among students. Regarding visually impaired students according to T1, “The training workshops exposed me to real-life skills such as Braille and Screen reader... I am in a better position now, and I can face any challenges that come my way.” In case of hearing-impaired students T2 mentioned that, “Managing failures was made less challenging as I incorporated



rigorously learned methods from the training... It also provided the teachers with a peer support group, something that I can run to.”

Administrative Support

A remarkable emphasis has been found out to be attached with the administrative support offered to special education teachers so as to mitigate the level of stress and working efficiency. A major point made in the study is the lack of enough administrative help for special education teachers, this further affects the stress levels of these teachers and also deteriorates their working effectiveness. As critical issues, consequent was lack of resources, limited professional development opportunities and lack of management support which resulted in lack of support for their roles and responsibilities. In case of visually impaired students T3 shared that, "Sometimes we don't have tools necessary for teaching Braille, so we can't match the needs of students well." Regarding hearing impaired students T4 stated that, "Resource requests are frequently delayed or overlooked.”

Support from the Colleagues

The teachers expressed the social interactions among special education teachers in Khulna, which described not only the sharing of experiences and strategies among the teachers but also the better management of problems faced in class. Employees share common experiences and be-surrounded themselves by people that can offer them emotional, practical and professional help leading to decreased sense of loneliness. Regarding visually impaired students T2 mentioned that, “They either provide recommendations or materials such as braille texts. They also give words of encouragement and tips on how to deal with certain circumstances that is so relatable that it makes me stop feeling so alone.” In case of hearing-impaired students T6 observed that, “We have regular communication, and they’re always eager to tell us how they address challenging circumstances. This constant pull and push keep me on my toes and better placed to handle daily issues.”

Engaging with Parents and Community

The results showed that the school administration urges the teachers to involve the parents and the community for the improvement of the environment of the learning for the special needs students. The participants opined that a direct contact with parents helps the teacher to understand the child’s home background and possibly special needs while interaction with the community ensures the students feel wanted and welcomed. In case of visually impaired students according to T1, “Allowing that bridge to be built with parents also lets students know that we are on the same side.” Regarding hearing impaired students T4 stated that, “Other ways through which we wake up consciousness in the community are conducting the workshops to make people appreciate the difficulties that the students go through.”

DISCUSSION, CONCLUSION, and RECOMMENDATIONS

Major Finding and Comparison with Existing Literature

Objectives 1: To explore the challenges faced by special education teachers.

This study explores the challenging experiences of special education teachers. The challenges of special education teachers include barriers in the teaching learning process, challenges of classroom management, challenges of using teaching aids, challenges of assessment, infrastructural challenges, administrative challenges and burn out.

The findings revealed that the teaching of visually and hearing-impaired learners is especially difficult for on account of lack of specialized teaching learning materials and inadequate teacher training. Specific problems include insufficient resource of free aids like Braille, tactile devices, interpreters and assistive technologies; or of strategies aiding in simplifying the explanation of difficult concepts for those with disabilities. These results are consistent with those of Ali et al. (2021), who emphasized that resource constraints are among the main barriers to providing equitable learning opportunities for these students.



Special education teachers find it difficult to hold the attention, assist in a smooth transition from one task to another, provide for accessibility and proper adaptation and ensure balance of individual attention and group dynamics. These findings are in line with those of Freundlich et al. (2018), who point out that the attention difficulties are common among students with sensory impairments.

The study reveals that teaching aids for special education are either inadequate, unavailable or outdated. Lack of funding compounds this problem and inhibits the ability of teachers to acquire good teaching materials or translate existing ones into locally understandable media. This is consistent with Al-Fadhli, (2020) who found that a significant barrier is the lack of sufficient funding for both the acquisition of appropriate teaching materials and the development of local adaptations.

The finding of this study also revealed that standard assessment practices are frequently ineffective, and having a child with such a disorder poses a significant challenge to the teacher, who cannot devise fair, more appropriate means of testing the student. This result supports the findings of Bahr et al. (1999), who point out that teachers struggle to identify and assess particular learning needs in the classroom of special students having hearing impairment and vision impairment.

The respondents stated that the absence of tactile paths, ramps, noise decrease classrooms and learning spaces proved to be the major challenges. Ineffective infrastructural arrangements are not only Interacting socially but they also compromise the self- reliance and confidence of the learners. These results are consistent with those of Posso-Pacheco et al. (2024), who discovered that, many educational institutions lack the infrastructure and resources needed to accommodate students with a range of disabilities.

Teachers are observed to get inadequate administrative support, which is in the areas of teaching aids, funding and professional development support. These constraints limit them in addressing the need of students to the optimum level. Research indicates that the main reasons special education teachers were a lack of administrative support, a high caseload, the demands of IEP (Individual Education Program) paperwork, isolation, a high number of students with diverse needs, and administrators for their efforts (PratherJones, 2011).

The results of this investigation unveiled that emotional and physical burnout resulting from a lack of resources, emotional labor, and systematic erasure was a common point brought out. One of the signs was that teachers said they were helpless and that there was always a need to defend students' rights. This is consistent with Embich (2001), who found that special education teachers' burnout levels were positively connected with their increased workloads, which included managing classrooms, acting as case managers for IE program meetings, and monitoring students' progress.

Objectives 2: To explore the coping strategies employed by special education teachers to overcome these challenges.

This study explores the coping strategies of special education teachers and how such teachers manage the challenges. The coping strategies of special education teachers include personalized teaching methods, classroom management approaches, using assistive technology, teacher training, administrative support, colleague support and engaging with parents and community.

Teachers adopt individualized strategies to address the unique learning traits of each student. Individual attention, use of touch and visual displays, and the use of special learning approaches are typical to increase interest and focus. This result is supported by a study of Mahvar et al. (2018) that emphasizes the need for teachers to use a range of tactics to better manage students' behavior and reduce the difficulties they face.

The finding of this study indicates that signs, hand signals, and use of proper voice, combined with a set down procedure and use of tangible reinforcement help in disciplining of the classroom. Shaddock et al. (2007) support this finding that, in a classroom management scenario, seating arrangements, lesson plans, teaching styles, and activities should all be considered.



The results of this study showed that assistive technologies such as Braille display, screen reader or sign-to-speech translator were employed to teach the students. But, implementing these tools involved much training time and was a process of iteration. Research indicates that a variety of assistive and instructional technologies are recognized as crucial elements for the advancement of students with disabilities (USAID, 2005).

The data of this study showed that training was effective to assist teachers for dealing with visually and hearing-impaired students who completed braille, sign language, and other technologies. This finding supports the claim made by Florian and Black-Hawkins (2011) that well-designed teacher training programs that include practical strategies like braille and sign language are essential for improving educational outcomes.

The results of this study showed that administrative support greatly reduces stress and increases the work efficiency of special education teachers. It also notes that lack of adequate administrative help is associated with both high stress level and low teacher effectiveness. According to Combee (2014) administrators should encourage a collaborative environment in addition to being supportive and helpful.

The teachers claimed that logistic support from peers was fundamental for teachers to reduce stress and create new solutions. This aligns with findings by Jones et al. (2013) who highlighted the importance of school personnel, such as administrators, support staff, and coworkers, in assisting new teachers in comprehending the expectations placed on them.

Teachers also reported that the role of parents and teachers as well as other members of the society in the learning process. This finding aligns with a study of Stanley (2008) revealed that a successful relationship between the home and the school may substantially empower parents, children with disabilities, and the school community.

This research explored the challenges and coping strategies of special education teachers in Khulna in meeting the needs of students with disabilities. Key challenges identified include inadequate training, insufficient instructional aids, poor infrastructure, lack of administrative support and burnout aligning with findings from previous studies. To cope, teachers employed strategies such as individualized teaching, integrating assistive technologies, pursuing professional development, collaboration with peers, administrative support and parental and community involvement. Evidence of this research is limited to special education teachers in the Khulna region and may not be relevant to the context of other places in Bangladesh as well as other similar contexts around the world. Further research in this field might be done to comparative study between urban and rural areas of Khulna might reveal the deeper aspects of resource disparities in educating the people and their effect on the teaching. This study contributes to wider knowledge of the special education teacher experience and offers actionable insights to policymakers, educational institutions, and stakeholders to close existing gaps in the current system, and to enable teachers working with special education students to achieve their students' needs in extremely skillful ways.

Ethics and Conflict of Interest

The authors of the study acted in accordance with ethical rules in all processes of the research. There are no individuals or financial relationships that could be perceived as potential conflicts of interest related to this study.

Author Contribution

All authors contributed equally to the research.

Data availability

The data that support the findings of this study are available on request from the corresponding author.



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INCLUSIVE ENGLISH LANGUAGE EDUCATION: CHALLENGES, INNOVATIONS, AND FUTURE DIRECTIONS FOR SPECIAL EDUCATIONAL NEEDS (SEN) STUDENTS

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Received: August 14, 2025

Accepted: October 27, 2025

Published: December 31, 2025

Suggested Citation:

Sari, H. (2025). Inclusive English language education: Challenges, innovations, and future directions for special educational needs (SEN) students. *Turkish International Journal of Special Education and Guidance & Counselling (TIJSEG)*, 14(2), 210-229.



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Abstract

The present review examines the conceptual underpinnings, educational arrangements, and institutional needs of Inclusive English Language Education (IELE), highlighting the overarching theme of equity in English language teaching. Engaging with the most recent studies on Special Educational Needs, it unveils the intricate problems that inclusive English language teaching must deal with, among which are the lack of adequate teacher training, the wrongly held belief of deficit thinking, and the different levels of resource distribution existing at both technological and institutional levels. It extracts the most recent and established teaching philosophies such as Differentiated Instruction, Universal Designed Learning, and teaching as a reflective practice, along with the newest technological tools such as AI, Mobile-Assisted Language Learning, and Blended Learning, positing that these tools' roles could be transformative in helping to establish accessibility and agency. Furthermore, it investigates the policy and institutional props that are underlying the scenario of inclusivity as a sociocultural construct, proposing cooperation as the primary method for undertaking long-term change. From a theoretical perspective, the study formulates a model along the four dimensions of teaching, technology, sociocultural background, and competence, positing transformative outcomes. The study asserts, finally, the quest for inclusive English language education means a transformation, rather than a teaching modification, towards epistemological justice, marking a fresh definition of teaching, learning, and English language equity along the lines of 21st-century global teaching.

Keywords: Differentiated instruction, English language teaching, inclusive education, special educational needs, teacher training, technology integration.

INTRODUCTION

IELE has gained much attention in recent years, especially as the teaching community has had to cope with challenges in delivering effective learning experiences for their Special Educational Needs (SEN) students. Inclusion in education aims to strike a balance between teaching in a way that caters to the needs of all students, without regard to background, ethnicity, or intellectual level, to provide equal quality to everyone seeking quality education (Tuzlukova et al., 2023; Žero, 2024). Under the broader inclusionary approach to education, educating students with SEN encompasses a cross-disciplinary approach combining modern teaching, technology, and collaboration among practitioners in the discipline of teaching (Moorhouse & Wong, 2021; Pryor et al., 2023). IELE, which is mainly driven by the need for an inclusionary model of teaching English, now, more than ever, needs to have a deeper understanding of the difficulties that are related to introducing SEN children into the regular classroom. Research has pointed out a problem of inclusiveness in relation to the absence of teacher training, unavailability, as well as difficulties in the implementation process particularly in the scenario of the quality of inclusivity that is being practiced today (Pryor et al., 2023; Tuzlukova et al., 2023). The teaching programs designed for beginner teachers could be insufficiently oriented to the inclusive teaching model, and this might negatively affect the teacher's ability to meet the diverse learners' needs (Žero, 2024). The problem under discussion brings to the fore the necessity of high-quality teacher education, which not only delves into the acquisition of competencies and skills by the



teachers as professionals but also at the development of inclusive-minded individuals (Chen, 2023; Chen & Wong, 2023).

The digital age has proven to be a significant contributor to the making of English language teaching more inclusive. Applications such as ChatGPT and AI-based online teaching platforms have accommodated special needs students more and helped them along with the individual demands (Kostka & Toncelli, 2023). This case has been a part of the planetary movement as online learning has appeared as the future thus making an equal opportunity for all (Alian & Alhaj, 2023). But simply the technological access is not sufficient; teachers must be equipped with critical digital literacy as a skill and also have an ability to design learning experiences that are substantially co-aligned with the inclusive pedagogical aims (Meniado, 2023). The adoption of the Flipped Classroom and TBLT teaching models has also emphasized the triumph of the principles of active learning, cooperation, and differentiated instruction which form the basic principles of inclusion (Lei, 2022; Wu, 2023). Nevertheless, the implementation of the teaching models mentioned above also needs the professional development of the teaching force and the institutions in order not to be limited by the existing constraints of the inclusive environment and thus be incapable of the novel spread of ideas (Tuzlukova et al., 2023; Zhou & Li, 2023).

The road ahead for Inclusive English Language Education is a mix of difficulties and opportunities, where the cooperation of policymakers, researchers, and practitioners is needed to rethink the practice, disseminate the good experiences, and cover the gaps that have been recognized (Chen & Wong, 2023; Pryor et al., 2023). The cooperation calls for an English teaching practice in the future that is based on equity, inclusivity, and high quality since the English language learners need to be provided with quality education throughout. The path ahead for inclusive English language education is a process of continuous practice review, awareness and support for policymakers, and a thorough approach to teachers' preparation that would be incorporating both theory and practice. The implementation of assistive technologies together with the complete training of teachers in the whole-course and the integrated pedagogical method will be the main support of the SEN students' empowerment process in the English language learning atmosphere. Even though the path to the future will be filled with challenges, it will also be the source of great innovations that could eventually turn the tide of inclusive pedagogy and transform the entire teaching of English to different levels of learners.

The intended outcome of this research is to provide a critical and updated review, as well as a synthesis of the latest developments in the area of Inclusive English Language Education (IELE), especially concerning the influence of modern studies conducted between 2020 to 2025 on such themes as inclusion, pedagogy, technology integration, and teacher training for Special Educational Needs (SEN) students. The research will uncover trends, difficulties, and successful practices while continuously highlighting the factors that will lead the way for inclusive English language teaching and at the same time suggesting areas for further research and policy improvement. The structural organization of the paper will be the following: The description of the methodologies used to collect information and select databases will be presented under the title of 'Methodology'. The Findings section involves communicating the utmost significant thematic findings of the study analysis, which will be coded under the labels of 'teacher training, technological innovation', 'pedagogical practices', and 'policy implications'. Lastly, the job of the 'Discussion and Conclusion' will be the final step of the paper, in which the above findings will be explained against the global educational contexts.

METHOD

The study applied a critical literature review approach to bring together current research findings regarding inclusive English language teaching education for SEN learners. The relevant and peer-reviewed research articles retrieved from the study were systematically searched in the Scopus database, Web of Science (including ESCI databases), ERIC databases, and DOAJ because the four databases guarantee full coverage of quality research works available through open access in the field

of education and applied linguistics. The research applied keyword searching using the following terms: ‘inclusive education,’ ‘English Language teaching,’ ‘EFL,’ ‘ESL,’ ‘special educational needs,’ and ‘SEN,’ and the searched articles were limited to those published from January 2020 to July 2025. Finally, the study focused on a total of 53 research articles that met the criteria of being in English and published in peer-reviewed journals concerning issues of inclusion within the framework of English teaching and learning. Language education-related studies or those lacking appropriate methodological details were excluded. All the chosen papers went through qualitative content analysis to reveal the main themes and patterns that are emerging in various educational settings. The analysis used descriptive coding, thematic categorization, and interpretative synthesis with great emphasis on the areas of teacher preparedness, technology integration, policy implementation, and student engagement.

Theoretical Foundations of Inclusive English Language Education

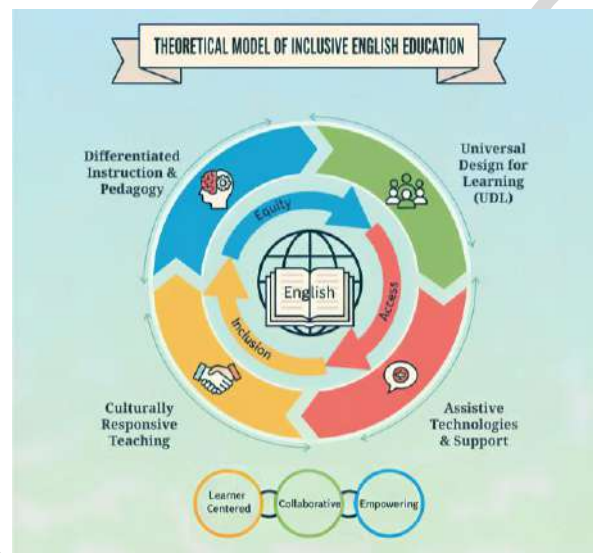


Figure 1. Theoretical model of inclusive English education

Theoretical underpinnings of Inclusive English Language Education (IELE) have been the focus of considerable scholarly debate as different educational communities attempt to create spaces where all students can learn, especially those with Special Educational Needs (SEN). The ongoing global trend of inclusion in education makes it important to consider the principles, practices, and philosophies that support inclusive teaching in English language education. Inclusive education should not be regarded as a last resort to solve problems, but as a first-rate teaching method that integrates different instructional styles, curricula, and assessments with the various learning profiles of students (Lacar, 2021; Žero, 2024). Therefore, one of the major aspects of inclusive English language teaching is the reconsideration of the traditional teaching methods that give priority to the fixed curricula and the student's needs at the same time.

It is pointed out by empirical research that inclusive education should consider diversity as a core educational asset and signifies a paradigmatic transition with regard to teachers' comprehension of pedagogical fairness (Lacar, 2021). Thus, diversity must be acknowledged as a teaching aid instead of being regarded as a hindrance that complicates the design of instruction. Consequently, it requires the teachers to become reflective practitioners, be able to change their ways, and keep on practicing student-centered teaching which can involve all the language learners in the learning process (Eslit, 2023). The institutionalization of inclusive commitment should ensure that through teacher education programs, pre-service and in-service teachers equipped with proper analytical, interpersonal, and



instructional competencies would thus attend to the SEN students' diverse learning needs (Şahan et al., 2022; Žero, 2024).

Recent research has also pointed out the role of technology as a facilitator in the emerging field of inclusive English language education. Learning platforms have come to play a central role in providing different and varied methods of teaching for SEN students in accordance with their cognitive and emotional profiles, thus allowing the students to go through the learning path that is personalized and corresponding with their unique characteristics (Siyabi et al., 2022; Thomas, 2022). These advancements imply that teachers may adopt a sceptical view towards the use of digital tools and at the same time, they should possess a solid technological pedagogical content knowledge that can guarantee the successful blending of such tools in the teaching of inclusive classrooms (Siyabi et al., 2022; Thomas, 2022). Nonetheless, the deployment of technology must be accompanied by a critical reflection of its consequences for linguistic diversity, world Englishes, and translanguaging practices, which, on their own, enable inclusive communication in the multilingual context of contemporary language education (Fang & Xu, 2022; Mahayanti et al., 2024).

Aiming to achieve a sustainable inclusive teaching practice, the UDL (Universal Design for Learning) paradigm has become the foremost guiding framework in ESL curriculum design. UDL suggests that different means of representation, engagement, and expression should be used in order to provide learning possibilities that are just and accessible for all (Lintangsari & Emaliana, 2020; Siyabi et al., 2022). The use of this framework replaces the outdated “one-size-fits-all” approach to teaching with the application of individualized methods that depend on the learners’ strengths and weaknesses (Aizikova et al., 2023). The proper use of UDL principles may establish a learning community where the characteristics of inclusion, belonging, and academic excellence are present, and where each student is acknowledged and appreciated (Ackah-Jnr et al., 2020; Lintangari & Emaliana, 2020).

The importance of social and cultural factors for language learning is increasingly acknowledged at all levels of teaching method adoption towards an inclusive approach. The factors of cultural identity, language background, and community context play a decisive role in learners' motivation, their participation, and, finally, their success in English (Mahayanti et al., 2024; Vizcarra-Garcia, 2021). Hence, teachers are required to implement culturally appropriate teaching alternatives that not only acknowledge the learners' identities but also situate language instruction within the broader social and cultural contexts. One of the strategies for building classroom cultures that are inclusive of all students, where their participation and contributions are recognized and regarded with the utmost value, is to develop mutual respect, intercultural communication, and appreciation of different viewpoints (Mahayanti et al., 2024; Vizcarra-Garcia, 2021).

Implementing the previously mentioned techniques, it has been widely recognized that professional education partnerships between teachers, parents, and other stakeholders have been increasingly stressed as the mainstay of teaching English to speakers of other languages inclusively. Interprofessional working relations among teachers, parents, and support staff stimulate the sharing of information and the solving of problems collectively, which in turn leads to the development of teaching practices that are more responsive and just (Fejes & Dahlstedt, 2023; Klimentyeva et al., 2021). This kind of teamwork not only gives teachers the power to design together with the students the interventions that are most appropriate for their needs but also, in addition to that, it enhances the feeling of acceptance as well as the academic effectiveness of SEN students (Paustovska et al., 2024; Thomas, 2022). The inclusive English education theoretical framework, in the end, emphasizes an integrated ecosystem wherein teaching, technology, and sociocultural awareness meet to help the different types of learners. On the one hand, inclusion is a difficult matter for teachers, and on the other, they must be the main advocates of fair policies, engage in continuous professional reflection, and form partnerships with the community. If schools and universities put together these joint efforts, they can establish learning environments that enable all students, particularly those with special educational needs, to express themselves and do so confidently in a world that is ever more diverse.

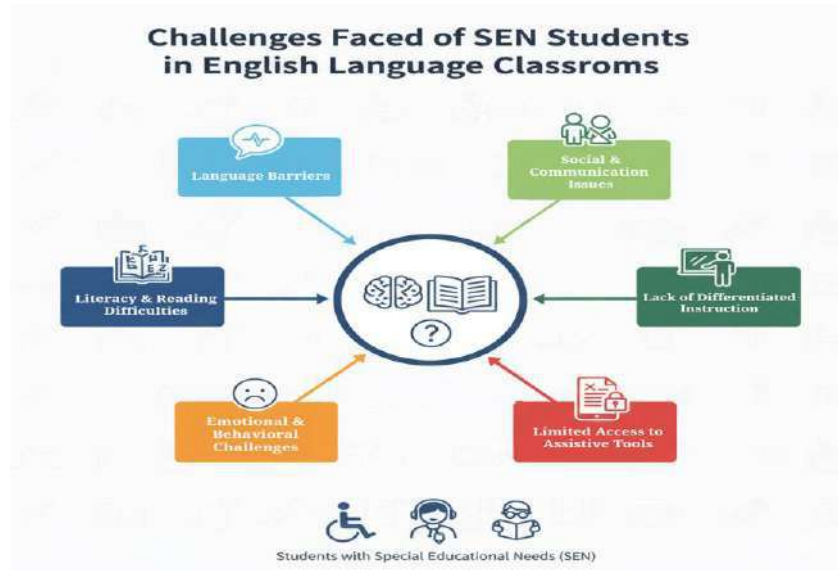
Challenges Faced by SEN Students in English Language Classrooms

Figure 2. Challenges faced by SEN students in English language classrooms.

The situation of Special Educational Needs (SEN) pupils learning the English Language encompasses a number of issues which are deeply ingrained in the learning environment and psychological settings. The problems might be induced by various factors, which might include learning difficulties within the student themselves, psychological factors, learning environment that negatively affects their studies, or the support received from the educational institution. However, it is important to address and eliminate each of them in order to promote equal opportunities to learn at the same level as others, especially SEN pupils. The classroom behavioural climate is one of the most critical issues that influence directly the participation and progress of SEN students. Research studies support the fact that SEN children are in much less friendly classroom environments than their non-disabled peers (Hoffmann et al., 2021). A negative and disruptive classroom environment, where there are no communication and frequent interruptions, can increase anxiety, lower self-esteem, and ultimately slow down language learning. Classroom interaction quality thus is the main factor that determines student motivation and their readiness to take part in communicative activities (Hoffmann et al., 2021).

Moreover, a very close relationship exists between students' perceived well-being and mental health on one hand and academic performance on the other, particularly in an inclusive education context (Chávez-Castillo et al., 2023). Thus, SEN learners who are already struggling with academic and social issues may be under more pressure and feel isolated, which make them even less able to cope with the learning of English tasks. Student–teacher relationships are the very first element emerging from the literature as a major factor that has a great impact on the development of academic self-efficacy and emotional resilience (Chávez-Castillo et al., 2023). Teacher–student relationships based on support and understanding can lessen the negative psychological impact that comes with SEN challenges, hence allowing students to be more engaged and perform better.

The design of the instruction and the choice of teaching methods are crucial to the success of English language teaching for SEN students. A number of teachers lack the necessary inclusive pedagogical training and therefore find it hard to provide different types of instruction or modify the materials for the various types of learners (Musayaroh et al., 2023). Consequently, their instruction barely ever reaches beyond the "one-size-fits-all" approach which does not cater specifically to the needs of SEN students. Teachers' perspectives regarding inclusion and their previous interactions with SEN pupils



are very much the determining factors of the level of inclusiveness in the classroom (Pryor et al., 2023). Negative attitudes and deficit-oriented expectations regarding SEN learners can have the effect of maintaining low achievement and decreased motivation (Pryor et al., 2023).

The integration of digital technologies presents both opportunities and challenges for inclusive English language education. While interactive learning environments and assistive technologies can enhance cognitive engagement and individualized support, they may also introduce new obstacles related to accessibility, motivation, and self-regulation (Ugalde et al., 2021). As a result, the educators must make certain that the technological tools are integrated academically and the circumstances are suitable (Börnert-Ringleb et al., 2021). The availability of universal access and the realization of digital inclusion in its most significant form are the conditions that must be met for us to obtain the maximum benefits from the operations.

Anxiety concerning the speaking process and avoidance of participation are among the major difficulties that can negatively impact the learning experience of the students using English as a Foreign Language (EFL) (Kuswantoro & Novita, 2024). A considerable number of the EFL students who require special educational measures may not participate in the lessons for fear of being corrected, laughed at, or rated negatively by their peers. This unwillingness is quite common in large classrooms, where students are not given enough attention and emotional support. The teachers with very high standards in grammar and language use might unintentionally provoke more anxiety in the students, thereby reducing their confidence and capability to express themselves (Kuswantoro & Novita, 2024).

The teachers' inability to support the SEN learners can be attributed to the absence of teaching and learning resources, materials that are not readily available, and poor professional development opportunities (Singh, 2024). Some of the teachers who received no training in teaching the learners using inclusive teaching practices may end up doing the opposite of what the SEN learners require concerning their learning experience. The SEN learners can be trapped in the cycle of poor performance due to inadequate support and poor learning opportunities. The SEN learners in various institutions continue to face the challenge of stigma and poor images of SEN within their culture. It has been noted that the SEN stigma can lead to the SEN learners being dehumanized due to the misconception of the SEN concept (Sin et al., 2023). Such stigmatizing beliefs are the main hindrances to open communication and to the creation of safe, inclusive classrooms that allow for the linguistic and personal growth of the students.

The difficulties faced by SEN pupils in English classes are related and complex, they include the classroom dynamics, the teachers' attitudes, the teaching methods, the institution's setups, and the society's perceptions. Therefore, it should be highlighted here that teachers can apply inclusive practices that are adaptable to each student's needs, that foster the building of positive teacher-student relationships, and that provide equal access to resources. Empathetic teachers who vary their methods and create a friendly atmosphere can be very supportive in the course of language and emotional skills development of the special educational needs (SEN) pupils. The progressive elimination of barriers will not be significant for educational victory only but also for the whole well-being and empowerment of the whole student body.

Even the hardest situations do not change the fact that teachers are still seen as the most influential people in the movement of making English language education inclusive. Teacher's recognition, understanding, and responding to the specific learning styles of SEN children not only foster the inclusive atmosphere in the classroom but also the whole institution's success in its struggle for justice in education. However, successful inclusion is not just a question of being nice; it needs well-planned teacher education, continual professional development, and research-based reflective practice as its support. The subsequent section, therefore, investigates the intertwining of teacher education, pedagogical competence, and professional identity in the implementation of the inclusive English

language teaching, and it also analyses to what degree the existing training frameworks prepare the teachers in handling the SEN learners' diverse needs.

Teacher Preparation and Professional Competence for Inclusive English Teaching



Figure 3. Essential Competencies for Inclusive English Teachers

An effective preparatory program for teachers of English language teaching, dealing with students with Special Educational Needs (SEN) demands a far-reaching and pluralistic approach that unites linguistics and pedagogy. Teacher education of the highest quality has to develop not only the English language competence but also the strategic and reflective abilities required to meet the different cognitive, social, and emotional needs of SEN students. The nature of this preparation can be a major factor in the academic achievement and social acceptance of these students. A core dimension of this preparation is the development of Pedagogical Content Knowledge (PCK), the synthesis of subject matter understanding and adaptive instructional methodology responsive to learner diversity (Dewi et al., 2020; Ruddick & Pryor, 2021). Teachers need to undergo special training for identifying and dealing with the learning styles and needs of SEN students individually as with this the alterations made in teaching can provide the same access to the opportunities of learning. Hence the pre-service teachers' training programs should be based on the principles of Differentiated Instruction (DI), which empowers teachers to incorporate people with different abilities, learning styles, and pace in their teaching (Rahmaniar et al., 2024; Sepian et al., 2023). Such variations in teaching methods will surely be an opportunity for SEN students as they will be the ones who will need the most help and thus will be the most requiring of adaptation in the forms of presenting, practicing, and assessing the content (Rahayu & Syahrizal, 2020).

Among the various factors that have been highlighted by recent research, teacher talk has come out as one of the main factors that can either promote or hinder student engagement and participation especially in English classes where students with special educational needs are among the attendees. Good, effective, and clear teacher communication that has empathy may help creating a psychologically safe environment where learners feel free to take linguistic risks and express themselves without the fear of being criticised (İrmayani & Masruroh, 2023; Kirahla & Tyas, 2020). Furthermore, through the intentionality in using the supportive and inclusive language, teacher may make the learners' confidence vulnerable and promoting the true language use.



The strategic incorporation of educational technology represents a transformative force in inclusive English instruction. The use of interactive digital tools like Kahoot! has been shown to provide significant advantages in motivation and engagement of SEN students by means of gamified and multimodal learning activities (Elangovan & Yasin, 2024). Educational technologies have made it possible to disseminate the content more clearly, and the implementation of visual learning tools has enabled the students to interact with the materials in a personalized and multimodal way (Hashim et al., 2023). Consequently, the incorporation of technology into teacher training curricula should be the primary consideration in the professional development of teachers and the facilitation of their mastery of the digital skills needed for the active inclusion of teaching strategies.

An equally important factor is the teacher-student supportive and collaborative classroom atmosphere that prompts all learners to interact with each other. Teacher education should also offer instruction on the application of cooperative learning design and peer collaboration techniques, which have been additionally shown to improve not only the academic performance but also the interpersonal relationship of SEN (Special Educational Needs) students (Bsharat & Salah, 2024). The promotion of interactive learning environments that are group-based and on cooperation fosters the feeling of belonging, increases the peer empathy, and makes the overall classroom more inclusive (Bsharat & Salah, 2024). Despite these pedagogical advances, a substantial number of teachers continue to report feelings of inadequacy and limited preparedness for teaching SEN learners, largely due to the absence of specialized training and insufficient exposure to inclusive education policies (Hussain & Amanat, 2021; Ranjit, 2022). This reality underscores the urgent need for systematic integration of SEN-focused modules within teacher education programs, ensuring that future educators acquire the theoretical grounding and practical competence necessary to construct inclusive classrooms (Nadia et al., 2021).

A further important dimension of teacher preparation is related to the issue of reflective teaching practice. According to Dewi et al. (2020), by means of reflective inquiry, teachers may critically investigate their methodological stances, check on effectiveness, and iteratively adjust them to better match learner diversity. Such continuous processes of self-evaluation not only upgrade professional recognition among teachers but also result in long-term improvements in students' learning achievements. Holistic teacher preparation for inclusive English language teaching should involve the pedagogical innovation, technological adaptations, differentiated instruction, relational pedagogies, and continuous professional learning. The teacher preparation process that centres on these aspects is bound to give educators the full potential to think, apply and keep an inclusive, high-impact learning environment that will most probably increase the levels of academic achievement together with the emotional well-being of SEN students in the process of learning English.

Continuing with the previous sections where teacher preparation and professional competence were the main themes, it is the integration of innovative pedagogies and technology that is custodian of the future for inclusive English language classes. Even if prepared teachers are the main support for the establishment of an inclusive practice, their efficiency highly relies on their potential to apply the new tools, digital resources, and creative instructional frameworks posited for the individual needs of SEN learners. Thus, the future of inclusive English language teaching is heavily dependent on professional teachers' expertise and on the clever application of innovative methods and technologies that can change the ordinary classroom into a lively, fair, and student-centered area. Consequently, the following part talks about how the cutting-edge teaching models and the latest educational tools can help us to come up with inclusiveness, motivation, and language growth among the different English language learners.

Innovative Practices and Technologies Supporting Inclusive EFL Classrooms

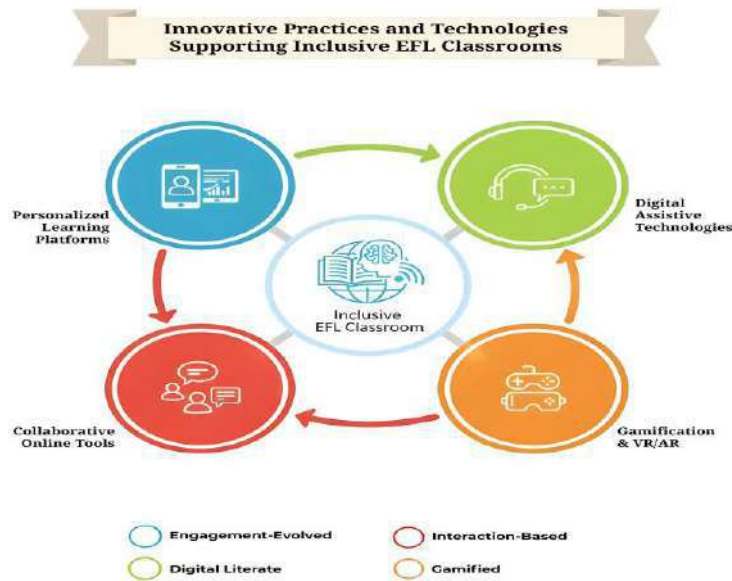


Figure 4. Innovative practices and technologies supporting inclusive EFL classrooms

The integration of innovative pedagogical practices and emerging technologies into English as a Foreign Language (EFL) classroom holds transformative potential for enriching the learning experience, particularly for students with Special Educational Needs (SEN). Contemporary research emphasizes that inclusive, interactive, and adaptive learning environments supported by technological advancement can effectively address the diverse linguistic, cognitive, and affective needs of learners. Effective inclusive strategies must therefore align with cutting-edge educational innovations that enhance accessibility, engagement, motivation, and a sense of belonging among all students. In this regard, one of the most astonishing advancements is the adoption of Artificial Intelligence (AI), which enables the creation of tailored and diverse learning experiences by changing the course content according to every student's distinct profile (Moybeka et al., 2023; Wu, 2023). With AI applications, learners now receive instantaneous feedback, learning paths that adjust according to their needs, and high levels of interactivity, consequently turning passive learners into active ones that not only participate but also do so in a meaningful way (Wu, 2023).

Besides AI, audiovisual technology and computer-assisted instruction have been recognized as effective tools in assisting diverse learners, such as those with disabilities, through the process of simplifying and reinforcing the comprehension of verbally communicated concepts (Mosquera, 2023). These allow each student to process the information at his or her own pace and help creating multisensory learning experiences which can accommodate different communication modes and cognitive strengths. This method enhances interactivity, accessibility, and independence of learners, which SEN learners require. Likewise, the technological tools of MALL enable the learner to access the information at whatever time and from wherever they wish, which provides them with flexibility that reduces the stress associated with learning in the classroom and promotes continuous engagement (Jeong, 2022; Zhou et al., 2023). The application of gamification and interactivity of MALL applications has been instrumental in improving the learner's motivation and their persistence to learn the language, which makes the learning of the subject inclusive and enjoyable (Zhou et al., 2023).

The integration of various learning methodologies involving classroom teaching and online learning has proven to be effective in developing autonomy and autonomous learning possibilities, along with various benefits involving linguistic engagement (Sheerah, 2020). The integration of literacy skills



development and the use of technology has been possible in the learning approach and also achieved multimodal engagement and differentiated instruction which are crucial elements of effective inclusion in teaching linguistics (Biantoro, 2020; Sheerah, 2020). In addition, web-based collaboration tools like Padlet facilitate peer-to-peer learning, shared reflection, and community building. Thus, social barriers are lowered, and the communication skills of diverse learners are improved (Kaldarova et al., 2024). These online learning platforms are a hassle-free method for educators to create collaborative, student-centered learning environments where students with special education needs (SEN) can deeply engage and be part of the community (Kaldarova et al., 2024).

The incorporation of assistive technologies into the classroom, and among them the text-to-speech software, voice recognition programs, and digital organizers, has played a significant part in the changing of the face of inclusive language education for SEN students, who are now more than ever empowered to take part in, as well as to understand the processes of learning (Suharti et al., 2020). The use of such technologies helps learners' gain independence and enable students to be able to participate in the hardest linguistic activities at their own pace, while the teacher provides the necessary support. Empirical findings support the fact that the incorporation of assistive and adaptive technologies has positively affected motivation levels, understanding, and learning achievement in EFL settings (Suharti et al., 2020).

To continue this momentum, there needs to be continuous professional development of the teachers. Teacher-training models such as the Technological Pedagogical and Content Knowledge framework teach the teachers the proper usage of technology in a context-sensitive way (Su, 2023). However, developing the teachers' ability to be flexible in their teaching methodologies along with their technological skills may ensure that technology becomes an integral part of the teaching learning procedure rather than a complement to it (Muslimin et al., 2023). The integration of AI, audiovisual aids, mobile-based learning, mixed-delivery classroom instruction, and group-sharing tools together signifies the concept of an inclusive EFL classroom as a living organism. For teachers, professional competence and adaptive expertise in these areas are essential to meet the changing needs of various learners, thus enabling the creation of transformative and just English language learning environments.

The role played by innovations in teaching practices and technologies in the provision of inclusive EFL instruction is of premier significance, but their potential also remains dependent upon the larger context in which they are actually facilitated. It will not be feasible for Inclusive English Language Education to prosper in an environment which lacks support from the system, inadequate funding, and the absence of legislation which, in a way, empowers schools, teachers, and students combined. In the context of this discussion, the reason for the existence of technological and educational innovations lies in the educational framework which provides constant support and advocacy of equity, accessibility, and the development of professional capacity. Moreover, it must be made sure that the culture of the institution has been shaped in line with the principles of shared responsibilities and cooperation which will ensure that the concept of inclusivity can be integrated and the concept can be planted not only as part of the educational trend but also as part of the framework of educational management. Therefore, the next part discusses the policy and institutional frameworks that support inclusive education and how the global and national initiatives influence the practical realization of equitable access to English language learning for students with Special Educational Needs.

Policy and Institutional Frameworks for Inclusion

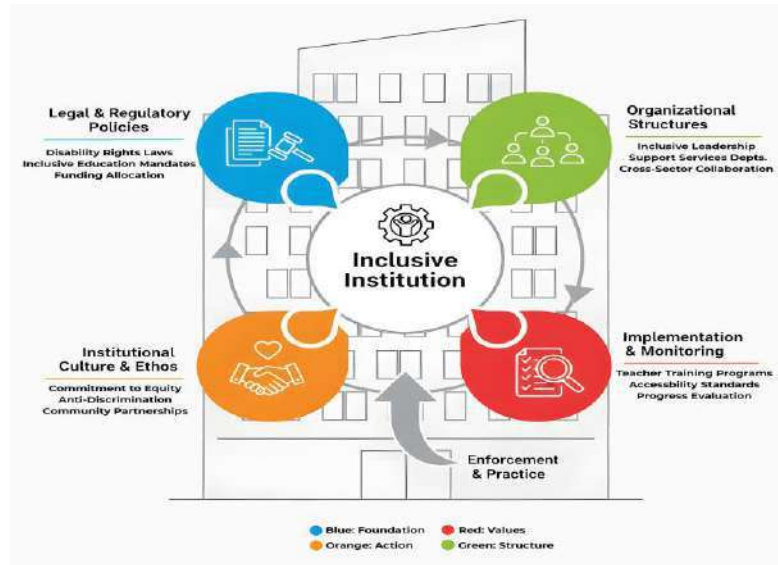


Figure 5. Policy and institutional frameworks for inclusion.

The establishment of policy and structural frameworks remains the essence of the concept of inclusive education in its totality because it constitutes the treatment of everyone fairly in the quest to access proper education, no matter who you are when it comes to Special Educational Needs (SEN). The policy framework grounded in general societal beliefs evident through policy expressions can provide the structural framework of the classroom environment that supports the development, engagement, and progress of all pupils (Kenny et al., 2023). The following discussion will interact with the various critical components of policy and structural models. Crucially, inclusive education policies are guided by universal educational goals and principles of social justice, meant not only to integrate students with SEN into mainstream education but also to dismantle systemic barriers standing in the way of full participation and accomplishment for students (Obah, 2024). The UNESCO Salamanca Statement and a Framework for Action signify that inclusive education is an undeniable right of every human being, thus requiring the educational institutions to adopt proactive measures instead of reactive ones in order to cater to the diverse needs of learners (Masunungure & Maguvhe, 2023). Similarly, the Dakar Framework for Action underlines the global commitment to "Education for All" and emphasizes the moral and practical responsibilities of the governments to dismantle every barrier to inclusion that affects the learning and success of students (Masunungure & Maguvhe, 2023).

The policy framework in Vietnam regarding inclusive education for children with disabilities has practically demonstrated and drawn attention to the basic principles of equality and participation, implying that real inclusion is about compliance with laws and about changing social attitudes to be more tolerant of diversity and acceptance (Thao, 2022). This perspective is in line with the global movement for inclusive education which is advocating for the transformation of the school settings into places which not only accept but also encourage the interaction of children with different backgrounds and differences (Thao, 2022). Teachers thus become the main performers in carrying out the policies, as they are the ones who connect the national policies to the realities in the classrooms. However, the obstacles of inadequate teacher training and professional development still exist, and they slow down the process of policy implementation (Malahlela & Johnson, 2024). Studies highlight that there are significant areas of weakness in teachers' knowledge, skills, and beliefs in the use of inclusive methods, which indicate the importance of continuous professional development so that policy objectives can be realized practically (Malahlela & Johnson, 2024). Thus, policy frameworks



should incorporate mechanisms for teacher capacity building, ensuring that professional growth and inclusive competence are institutionalized priorities.

Inclusive policymaking needs to be a participatory endeavour that embraces the views and realities of the targeted students who suffer from intellectual and learning disabilities. As noted by Herrero et al. (2020), the direct incorporation of student views into policymaking might contribute to the increased effectiveness of the policy changes implemented in the learning environment toward the development of an empowering and person-centered space. By the same token, Filippou et al. (2025) claim that inclusive higher education is dependent on an all-encompassing and evidence-based policy foundation which can deal with both access and performance issues throughout the education system. They point out the requirement of making decisions based on data and continuous assessments so that the institutions can keep track of the impact and modify the policies in a timely manner to realize inclusivity (Filippou et al., 2025).

The recent trend of the United Kingdom promoting the concept of agentic inclusion in the higher education sector marks the beginning of a dramatic and positive shift in policy culture that has become adaptive and responsive (Baltaru, 2020). This policy promotes accessibility in the field of higher education and assists in the development of an inclusive culture within the institution where the concept of diversity is reflected in the management and the overall academic environment of the institution. In this context, to bring this shift about, the educational institutions need to treat the concept of inclusion as a prime agenda rather than a secondary one.

As inclusive education continues to evolve within the global policy arena, continuous reflection, critical analysis, and framework revision are indispensable. Scholars such as Nnamani and Lomer (2024) highlight the importance of policy discourse analysis to uncover underlying tensions between ideological commitments and practical constraints in inclusive education. Such analysis is vital for constructing a holistic, context-sensitive understanding of inclusion that transcends rhetoric and informs tangible reform. The creation of policy and institutional frameworks for inclusion should primarily be based on social justice, equity, and educational democracy. These frameworks guarantee a system of education in which teachers, students, and communities are heard as the loudest, and flexibility, accountability, and responsiveness are part of the core. However, these models also need a continuous development process involving pilots and modifications to be tested and proven effective, relevant, and resilient over time to the various groups of people who believe that inclusion constitutes a right and a necessity.

The application of equity principles in education is not the only role that the policy of inclusion and the institutional framework supporting this policy do but they also shape the fate of Inclusive English Language Education (IELE) at the same time but based on the extent to which the research can probe and innovate in this ever-changing environment. The ability of researchers to establish the linkages from the policy dreams at the macro-level to the world of the classroom and its micro-sized realities forms the essence of the call for proper progress in the activities of the research. The policy research will then understand the educational and technological realities of the micro-world of inclusion. The policies of the present have opened the paths to accessibility and participation; however, there still exist considerable empirical and conceptual gaps regarding the best practices of inclusive English language education for different sociocultural contexts. In this context, the immediate next step that will be taken in this paper will be to identify the future trends and research needs in order to bring about awareness of the emerging domains that require research and also the ways through which the English language teaching paradigm can be made inclusive and research responsive.

Future Directions and Research Gaps in Inclusive English Language Education

Figure 6: Future directions and research gaps in inclusive English language education

The direction of future research for Inclusive English Language Education (IELE) is quite central for the development of learning and teaching methods, practices, and policies that truly include everyone and especially the learners with Special Educational Needs (SEN). This paper reviews the literature and points out the main weaknesses that need to be filled in order for the discipline to progress. Among the most pressing research frontiers is the intersection between translanguaging practices and inclusive pedagogies. Fang and Xu (2022) are of the opinion that trans-languaging counteracts native-speakerism ideologies, and the result is more inclusive classroom conditions along with the asserting of linguistic variety. With the rising multicultural and multilingual staff in language classrooms, the strategic and right timing of translanguaging in English language instruction for the benefit of inclusion is worth exploring. The design and assessment of translanguaging-based models for SEN learners should be the case for future research. Such research will closely examine the effects of these models on language growth, participation, and social integration in culturally diverse schools.

Teacher training for inclusivity is yet another immediate concern of research in the area. Žero (2024) highlights the extreme inadequacy of teacher training in the field of Special Learning Difficulties (SpLDs) in English language teaching. The need for empirical research is urgent, and the situation should be systematic and the primary concern in the area over the years to come. Future investigations should come up with hybrid training frameworks that would be able to effectively combine the use of evidence-based inclusive practices with the teaching of SpLD-specific instructional strategies. Moreover, more research should be conducted on cooperative learning as a means for language learning inclusion to its fullest. Zheng and Zhou (2022) noted that cooperative learning can give a boost to EFL learners' motivation and to enjoyment; thus, future research should put under the microscope the impact of cooperative learning on social interaction, peer interdependence, and academic performance of SEN (Special Educational Needs) students. Task design and group composition should be given special attention in order to achieve equitable participation across different ability levels.

Under the umbrella of language policy and classroom ecology, the study on the impact of English-Medium Instruction (EMI) needs to take the multilingual classroom environment of higher education in Thailand and Vietnam as one of its focal points. Şahan et al. (2022) point out that the inclusive



qualities of bilingual teaching, which is a mixture of English and local languages, are more powerful than those of the strict EMI models. Furthermore, the research should focus on the changing of EMI's calibrations so that it is easy to accommodate the needs of the emotional-behavioural development of SEN (Special Educational Needs) participants or students in the classroom. The same thing can be said about Mobile-Assisted Language Learning (MALL), which is a technological ground that is gradually breaking research. Liu et al. (2023) mention that mobile technologies can make the learners' lifelong education and self-directed learning sustainable, however, the SEN learners' situation is not part of the investigation. Studies should find out the most effective ways of inserting MALL into inclusive EFL classrooms and then also quantify the benefits received in terms of student autonomy, engagement, and access for a wide range of learners.

The adoption of Artificial Intelligence (AI) in EFL settings has opened up a new area that still requires the attention of the scholars. Researchers are yet to fully explore the impact of AI on psychological constructs like self-regulation, motivation, and resilience. Along this line, Zhang et al. (2024) propose to investigate the potential of AI-driven tools in supporting the emotional and cognitive aspects of SEN learners' language acquisition. Future studies should be directed towards the development and assessment of AI interventions that match the unique affected and learning characteristics of SEN students. Similarly, the use of digital collaboration platforms like Padlet brings up possibilities for the accretion of soft skills and social interaction. Kaldarova et al. (2024) point out the success of Padlet in fostering communication, collaboration, and reflection in EFL classes, then, it is proposed that future research should be directed at discovering how the different types of online settings can be utilized to support both the academic and social-emotional development of SEN students.

At last, the emotional control and well-being of EFL students in inclusive settings is one of the domains that has received the least attention. The complex connection among emotion regulation, motivation, and academic performance points to the need for longitudinal, mixed-methods research to identify the ways in which positive teacher-student relationships and supportive classroom climates mediate these dynamics. Through their research, Zhang et al. (2024) proposed that one of the main roles of emotion regulation in the language learning process was to act as a mediator, thus suggesting the incorporation of teaching emotional skills aimed specifically at students with special educational needs (SEN) like anxiety and low self-esteem. Future IELE research may mainly revolve around these four distinct yet tightly interlinked pillars: teacher training, new curricular and methodological innovations, technology integration, and emotional resilience. Focusing on these pillars may help the road taken by the field to be through the discourse of inclusion to one where English language education is a social right and a means for social justice, empathy, and excellence to be developed.

DISCUSSION, CONCLUSION, and SUGGESTIONS

The outcomes of the Inclusive English Language Education (IELE) study clearly indicate that although inclusion is a theoretically strong concept and has been widely supported in international discussions, still very much depends on the specific situation that teacher skill, institutional involvement, and availability of technological and social resources are among the factors. In the literature examined, the gap between the noble words of inclusive policy and some realities of fewer implementation in classrooms has been one of the most striking features. This too is in line with Žero's (2024) statement that inclusion, although accepted as a rule in the educational systems, is still suffering from the problem of being applied only in a superficial manner. Consequently, the debate has brought about the view that IELE is an ever developing and multi-faceted concept that is at the same time pedagogical, technological, emotional, and political and thus calls for the adoption of integrated approaches rather than fragmented reforms.

The mediating role of teacher preparation in the success of inclusive English pedagogy is pointed out as a major point of significance. The reviewed studies bring to light that the inclusive outcomes



greatly depend on the teachers' skills to implement differentiated instruction, reflective practice, and adaptive communication. Nevertheless, despite the increasing focus on incorporating models such as SIOP and UDL, teacher education programs still give too little emphasis to inclusion as a core competency, which results in limited readiness to cater to Special Educational Needs (SEN). This strengthens the claim that teacher professional development should shift from being sporadic training to being a continuous, evidence-informed process that is part of the institutional culture. Dewi et al. (2020) have pinpointed the role of reflective teaching as the most powerful and have thus made this necessity of closing the gap between theoretical inclusion and the actual situation in classrooms even more pressing.

The integration of technology is considered as one of the main dimensions in the evolution of IELE. The innovations in the digital world from Artificial Intelligence tools, Mobile Assisted Language Learning and collaborative platforms such as Padlet give nothing less than the highest extent of customization and accessibility to educational activities. However, the studies indicated that the digital divide and the low levels of teachers' digital skills are still the most important systemic obstacles. The technology discussion indicates that inclusion is not a direct but a mediated role for technology; it transforms to be inclusive only after teachers are provided with the necessary digital skills, critical awareness, and the morally correct aspects to use it justly. Moreover, AI tools may provide tailored learning according to individual student's needs but their impact on learners' psychology and emotions is still an unexplored area especially in terms of motivation, resilience and self-regulation of SEN students. These less-studied areas highlight the need for new, interdisciplinary cooperation between areas such as applied linguistics, psychology, and educational technology.

Inclusive English language teaching is seen, from an institutional perspective, as a governance and accountability issue that requires a restructuring of the entire system. According to Baltaru (2020), Nnamani and Lomer (2024), the practice to be included in a school system should not only be obtained through the reputation of the school but must be intended as the guiding philosophy which will permeate all levels of the education system. The argument put forth here is that the logic of inclusion needs to be taken further into the future because of the policy ecosystems that support it and those that mix teacher empowerment, curriculum and assessment practice, and data-driven evaluation. The gap in implementation concerning this area is still quite considerable, even though inclusive policy frameworks are present in such contexts. These frameworks are not supported by adequate funding, monitoring, or stakeholder engagement that is, for instance, an indirect student participation that Herrero et al. (2020) and Filippou et al. (2025) recommend and refer to, which remains one of the main ways to assure that the inclusive nature of the system is not just a matter of compliance but really through empowering and granting the users authority.

Moreover, the recognition of emotional and sociocultural aspects in inclusive pedagogy is of the same importance. According to Chávez-Castillo et al. (2023), academic results are closely associated with mental health and social acceptance, which means that the conditions of the classroom that are trying to be inclusive should provide affective safety for the students along with cognitive development. Fang and Xu (2022) in their exploration of translanguaging and linguistic justice bring forth a discussion advocating for culturally responsive teaching, thereby reframing diversity as a resource instead of a barrier. The amalgamation of these views asserts that the very foundation of English language teaching rooted in justice is actually made up of both the mentioned attitudes and the structural reform.

Including thus, the whole discussion about Inclusive English Language Education brings out three major points that stress the need for a change. First and foremost, such an approach as inclusion should be supported by institutions and carried out by teachers thus, making the policy-intention-and-classroom-practice gap very narrow. Secondly, it should be tech-based and emotionally supportive, utilizing the latest technology but at the same time safeguarding the students' mental health. Finally, the whole process of providing the students with an inclusive environment must be culture-and-ethics-



rooted thus helping the practitioners to see the inclusion as a moral and professional duty rather than as a marketing slogan. The attainment of this integration would be a result of continual interaction among teachers, policy makers, and researchers. Thus, it would be the establishment of inclusion, not as a method for the few but rather as the basic principle in the English language education of a world that is becoming more and more diverse.

IELE/S, inclusively speaking, has undoubtedly been a whole and necessary concept in the current educational discussions and practices that resulted from the growing diversity of the learners with differing backgrounds, abilities, and educational needs. Delving into the inclusive English language teaching and its recent practices, obstacles, and innovations has led to the conclusion that, although inclusion is a concept that is theoretically well-grounded, its realization is still disparate and contingent upon the setting. According to Ackah-Jnr et al. (2020), the use of inclusive language, when applied intentionally as both a teaching and a motivational tool, benefits not only the intellectual development but also the emotional health of the students in the diverse classrooms. This indicates the necessity of inclusive discourse and practice being voluntarily and comprehensively applied in all aspects of English education.

Teacher preparation continues to be the pillar supporting inclusive English teaching. Aizikova et al. (2023) say that structured models like SIOP (Sheltered Instruction Observation Protocol) help educators to match content and language goals for varied learners in a systematic way. Nonetheless, even with such frameworks in place, the majority of teacher training programs still do not give importance to inclusion as their primary pedagogical principle, which results in the unpreparedness of the graduates to cope with the diversity of learners. At the same time, the use of educational technology promises a lot in terms of accessibility and participation. Alian and Alhaj (2023) indicate that in the case of technology utilized in English teaching at the university level, it is very likely to increase students' motivation and understanding, but still, digital inequality is a major problem, particularly in poorly supplied areas, thus making the digital divide an urgent issue for the educational platforms that seek to be inclusive.

At the institutional level, Baltaru (2020) claims that inclusion is often discursively framed through institutional reputation and accountability metrics rather than through the real educational transformation that was claimed. This critique invites educators and policymakers to critically interrogate the ideological foundations of inclusion and to synchronize the initiatives with the values of equity. Börnert-Ringleb et al. (2021) add to this idea by pointing out that, on the condition that digital tools are universally available, teacher digital competence and infrastructural readiness may decide the outcome, whether it is enabling or inhibiting inclusive practice. By taking a pedagogical approach, Bsharat and Salah (2024) support the use of cooperative learning and drama-based instruction as vibrant strategies that invite participation and bring in peer collaboration and motivation, which are the essential ingredients of inclusive classrooms that cater to the diverse needs of students.

Likewise, Chen (2023) puts the emphasis on the TBLT's likelihood to customize teaching according to one's needs without losing authenticity and the engagement of learners. At the same time, Chen and Wong (2023) present to us the manner in which video discussion tools like Flip can promote reflection, professional identity, and the feeling of being part of the community among pre-service ESL teachers. The psychological side of the concept of inclusion is even more crucial than pedagogy: Chávez-Castillo et al. (2023) point out the need to regard the student's performance and psychological state as part of the discourse concerning the inclusion of students in educational institutions. Fang and Xu (2022) approach this situation from the prism of global Englishes and translanguaging and recommend the development of a novel method of calculating the value of linguistic differences rather than the handicap of linguistically heterogeneous groups of pupils. This complements the views of Filippou et al. (2025), who recommend the need to rely on research-driven transformation of



educational institutions to guarantee that the philosophy of inclusivity permeates the educational framework through the medium of the academic culture that embodies the philosophy of inclusivity.

According to Kenny et al. (2023), the concept of educational inclusivity has to be a comprehensive and collective procedure and should not be limited to non-interaction practices that occur within the classroom environment. The actual concept of inclusivity will promote the coexistence of teachers, managers, policymakers, and students and hence generate equality within their educational context. According to the mentioned studies, it's important to move beyond the constraints of altering the educational curriculum and incorporating educational technological innovations to achieve the level of genuine educational inclusivity in English teaching practices. A radical shift from the previous educational framework of promoting teacher development and culturally relevant teaching practices needs to be achieved. The future of inclusive English language teaching thus is at the crossroad of deliberate practice, research-based teacher training, ethical technology use, and a constant focus on social justice outcomes. Only with such a multi-faceted, cooperative, and ethically rooted framework can inclusion surpass the level of mere talk and become a lived reality for all learners in the educational system.

Ethics and Conflict of Interest

This research was conducted in accordance with recognized ethical standards. The author declares that he acted in accordance with ethical rules in all processes of the research, and there are no conflicts of interest related to this work.

Data availability

The data that support the findings of this study are available on request from the corresponding author.

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UNCOVERING THE IMPACT OF SCIENCE LAB ACTIVITIES ON ELEMENTARY SCHOOL CHILDREN'S PERFORMANCE AND CLASSROOM BEHAVIOR IN NIGERIA

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Received: June 21, 2025

Accepted: September 18, 2025

Published: December 31, 2025

Suggested Citation:

Adebusuyi, O. F., Jimoh, D. O., & Badru, A. K. (2025). Uncovering the impact of science lab activities on elementary school children's performance and classroom behavior in Nigeria. *Turkish International Journal of Special Education and Guidance & Counseling (TIJSEG)*, 14(2), 230-240.



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Abstract

This study aims to investigate the impact of science lab activities on the academic performance and behavior of elementary school children in Nigerian primary schools; It adopts an experimental design with pre-test, post-test, and control group methodology to assess outcomes, alongside a cohort approach for examining temporal relationships: The research draws on theoretical perspectives of Vygostky socio cognitive learning theory and behavioral development, exploring cognitive, affective, and psychomotor domains of learning. Young children (aged 5 to 6 years) were recruited from diverse urban and rural schools, classified into experimental and control groups, and followed for 12 weeks with periodic assessments. The findings reveal that in the experimental group, science lab exposure significantly enhances students' academic performance and reduces behavioral problems by fostering social interactions and emotional regulation. The study identifies differences in male and female science literacy skills and highlights the importance of early intervention in addressing educational and behavioral challenges. It concludes that structured science lab activities can transform practical science education, inform evidence-based interventions, and contribute to Nigeria's socio-economic development through improved science literacy and equitable learning opportunities.

Keywords: Science lab, elementary children, performance, behavior.

INTRODUCTION

In recent years, global efforts to improve STEM education have brought increasing attention to the role of practical science activities in fostering academic achievement and essential skills among students (Grancharova, 2024; Pozo-Rico et al., 2024). In particular, science lab activities are seen as a critical component for advancing science literacy, problem-solving abilities, and collaborative skills, all of which are pivotal for academic success. In Nigeria, where educational systems are seeking to bridge gaps in science education, the integration of practical experiences is crucial for developing a scientifically literate workforce capable of contributing to national development. This has been echoed by Nigeria's Minister of Education, Tunji Alausa, who emphasized a shift towards an education system with 80% practical activities as a means to revolutionize learning in the country (Udegbonam, 2019; Agency Report, November 2024).



Despite the recognized significance of science education in nurturing critical thinking and innovation, many developing countries, including Nigeria, face challenges in providing well-equipped science labs, particularly at the elementary school level (Kotsis, 2024). This lack of exposure to hands-on learning activities can hinder students' academic and behavioral development, especially in science-related subjects. Existing research has demonstrated the broad benefits of science lab activities, such as improving critical thinking, problem-solving, and teamwork (Shana & Abulibdeh, 2020). However, there is limited exploration of the specific impacts of science lab exposure on students' attitudes, motivation, and overall engagement with science. This study seeks to fill this gap by examining how science lab activities can influence academic performance and behavioral outcomes in elementary school children, particularly in Nigeria, where the need for interventions in science education is paramount.

An important aspect worthy of investigating is the gender differences in the impact of science lab exposure. Previous studies have highlighted that male and female students often experience different educational outcomes in STEM fields due to a variety of factors, including societal expectations, cultural norms, and differences in cognitive and emotional development (Blanchard et al., 2010; Uzezi & Zainab, 2017). Understanding the distinct ways in which male and female students respond to science lab activities is essential for developing more inclusive educational practices that cater to the needs of both genders. Gender-sensitive interventions can ensure that both male and female students are equally motivated, engaged, and empowered by science education, thereby promoting equitable access to opportunities in STEM fields. By exploring these gender differences, this study aims to contribute to a deeper understanding of how science lab activities can be optimized to benefit all students, regardless of gender.

The theoretical framework for this study is anchored in the Social Constructivist Theory of learning, which emphasizes the active role of students in constructing knowledge through engagement with their environment (Vygotsky, 1978). Science labs, as environments that promote inquiry and experimentation, offer an ideal setting for such constructivist learning, where students can develop skills like problem-solving and critical thinking. Additionally, the study draws from the Social Cognitive Theory (Bandura, 1986), particularly the idea that observational learning and social interaction in group activities are integral to behavioral change. The integration of these two frameworks provides a comprehensive lens to examine how science lab activities not only affect cognitive outcomes like academic performance but also influence behavioral dynamics such as student engagement, motivation, and emotional expression.

The effectiveness of laboratory-based learning in improving student performance, particularly at the secondary school level, has been widely explored, with substantial evidence highlighting the benefits of guided-inquiry and virtual laboratories. Guided-inquiry lab activities, as compared to traditional methods, are shown to significantly enhance test performance, knowledge retention, and reasoning skills. Uzezi and Zainab (2017) demonstrated that secondary school chemistry students performed better in volumetric analysis tests when taught using a guided-inquiry approach, as compared to traditional lab methods. Similarly, Blanchard et al. (2010) found that guided-inquiry labs improved students' performance across multiple science subjects, showing gains in knowledge and reasoning, as well as long-term retention. Inquiry-based teaching methods, including guided-inquiry, have been praised for fostering critical thinking, hypothesis development, and experimental design skills, which are key in science education (Wilson et al., 2009). Notably, these methods not only benefit cognitive skills but also contribute to addressing achievement gaps across diverse student demographics, including gender (Blanchard et al., 2010; Uzezi & Zainab, 2017). Additionally, the impact of guided-inquiry labs extends beyond immediate academic performance, promoting lasting learning outcomes. For example, Blanchard et al. (2010) found that guided inquiry significantly improved students' retention and ability to apply knowledge over time.



Virtual laboratories, especially in resource-constrained settings, have also proven to be effective in enhancing student performance. Sabasales (2019) compared the effects of virtual and physical labs on students' performance in physics, revealing that virtual labs contributed to similar improvements in test scores. Virtual labs provide an alternative method of instruction that compensates for the lack of physical resources, offering students a platform to simulate experiments that may otherwise be inaccessible. Studies such as those by Tatl and Ayas (2013) and Bazie et al. (2024) emphasize the effectiveness of virtual labs in improving students' comprehension and procedural skills in chemistry, with findings supporting their utility as both an alternative and complement to physical lab sessions.

Despite these successes, gaps in the literature remain, particularly in terms of how these pedagogical strategies influence classroom behavior and engagement at the lower levels of education. While much of the existing research focuses on the measurable impacts of guided-inquiry and virtual labs on academic performance (Uzezi & Zainab, 2017; Sabasales, 2019), there is less emphasis on the underlying classroom dynamics and student behavior during these activities. In particular, the interaction patterns between students and the broader classroom environment, such as collaborative behaviors in group lab settings, have not been sufficiently explored. For instance, Onukwu and Ikenna (2024) found that group-centered laboratory activities foster higher achievement than individualized labs, yet their study primarily focused on academic outcomes rather than on behaviors that may contribute to these results. Furthermore, there is a gap in understanding how laboratory instruction impacts students' classroom behavior in terms of engagement, motivation, and collaboration. While studies such as Dietz and Slaughter (2013) suggest that laboratory activities improve science content mastery, they largely overlook how different instructional designs influence classroom interactions or how they affect students' attitudes and behaviors toward science learning. This lack of attention to classroom behavior and the social dynamics during inquiry-based or virtual laboratory activities limits the potential for understanding the full spectrum of benefits these pedagogical strategies may offer.

This study aims to investigate the impact of science lab exposure on the academic performance and behavior of elementary school children in Nigeria. It explores how engaging in practical science activities might enhance academic outcomes, reduce behavioral problems, and foster more positive attitudes toward science. By comparing the performance and behavior of students exposed to science labs with those who are not, the research seeks to identify key benefits of practical science education that can inform policies and educational reforms. This study is significant because it not only addresses the cognitive aspects of science education but also the social and emotional dimensions, which are often overlooked in traditional classroom settings. By contributing new insights into the relationship between science lab exposure and student behavior, this research aims to inform educational strategies that will support the development of well-rounded, scientifically literate individuals who are equipped to contribute to Nigeria's socio-economic development.

In line with this aim, the following sub-aims were also addressed in this study:

For the purpose of the study, a number of research questions have been raised and they include:

1. What is the level of science literacy skills that exist in elementary school?
2. What is the level of behavioral problems in elementary school children?
3. What is the significant impact of science literacy skills on elementary school children behavioral problems?
4. Is there a significant difference in the male and female science literacy skills?

METHOD

The study adopted an experimental design using a pre-test, post-test, control group format. This approach enabled a rigorous assessment of the impact of science lab exposure on academic performance and behavior. Additionally, a prospective cohort design was utilized to evaluate the



association between science lab activities and performance and attitude/behavior among elementary school children in Nigeria. The cohort was classified into experimental and control groups at baseline, ensuring all eligible participants were at the same entry point of performance and attitude/behavior issues at the study's start. Participants were followed for a period of 12 months, with assessments conducted at three-month intervals to investigate temporal relationships between exposure to science activities and outcomes while minimizing recall bias.

Sample and Sampling Technique

The study was conducted in Ijebu-Ode Local Government Area (LGA) in Ogun State, located in the southwestern region of Nigeria. Ogun State is composed of three senatorial districts, and the study encompassed two local government areas (LGAs) from each of these districts. Specifically, Ijebu-Ode LGA was selected as the study area to represent the local educational landscape. For a comprehensive analysis, two primary schools and two junior secondary schools were chosen from each of the two selected LGAs within Ijebu-Ode.

The focus of the study was on two educational categories: primary schools and junior secondary schools. In the primary school category, two classes—Basic 5 and Basic 6—were included, while in the junior secondary category, Basic 7 and Basic 8 students were selected as participants. The research utilized intact classes, meaning the study sample was comprised of pre-existing classroom groups that were not altered for the purposes of the study. Participants were purposively recruited from both urban and rural elementary schools to ensure that the sample was representative of the wider population within Ijebu-Ode LGA. The recruitment process involved multistage sampling technique to maximize participation and ensure diversity. These strategies included posting advertisements and flyers on school bulletin boards, distributing communication letters through local community partners, and leveraging online forums to reach potential participants.

To meet the study's inclusion criteria, only children aged 5 to 6 years old were selected. Additionally, participants were required to be free of any significant performance or behavioral issues at the time of recruitment. This was done to ensure that the sample represented children who were capable of consistent participation throughout the study. Children who exhibited early signs of performance or behavioral challenges were excluded from the study to maintain the integrity of the sample. Participants who met the inclusion criteria and provided consent for longitudinal participation were considered eligible to take part.

The demographic characteristics of the study sample are presented in Table 1, which shows the distribution of participants by gender and age.

Table 1. Demographic Data of the participants.

	Frequency	Percentage	Cumulative Percentage
Male	19	47.5	47.5
Female	21	52.5	100.0
Total	40	100.0	
Age			
5 years	11	27.5	27.5
6 years	16	40.0	67.5
7 years	13	32.5	100.0
Total	100	100.0	

Table 1 shows that out of the 40 participants, 19 (47.5%) were male, while 21 (52.5%) were female. This distribution indicates that slightly more female participants were included in the study compared to male participants, reflecting a gender balance that is close to parity, but with a slight majority of females. The age distribution of participants is also presented in Table 1. The study population consisted of 11 (27.5%) children aged 5 years, 16 (40.0%) children aged 6 years, and 13 (32.5%) children aged 7 years. The largest proportion of participants were 6 years old, followed by 7-year-olds.



and 5-year-olds. This suggests that the study primarily captured the experiences of children in the middle of the age range, with a more balanced representation of the younger and older children.

Data Collection Procedure

The researcher visited the school to obtain permission to carry out the study from the heads of the schools. During this visit, children were evaluated to confirm eligibility and ensure freedom from performance and attitude/behavior issues. Eligible participants were given written consent to their parents before they were enrolled in the study. The study was carried out in three stages: Firstly, the experimental and control groups completed a pre-test to establish baseline academic performance and behavioral measures. Exposure to science lab activities was assessed using a detailed questionnaire that collected information on duration, frequency, and intensity of prior science lab involvement. Thereafter, the experimental group participated in structured science lab activities for 12 weeks, while the control group continued with traditional teaching methods. Lastly, at the end of the intervention, both groups completed a post-test assessing academic performance and behavioral outcomes.

Intervention

The intervention designed involves hands-on science activities aimed at enhancing young learners' understanding of heat and material properties through experiential learning. The structured activities, "What Melts in the Sun?" and "Sun's Heat in Different Locations," serve as instructional interventions designed to:

Research Instruments

Three research instruments were used to collect data for the study. The instruments were the Science Performance Test (SPT) which is a Standardized science tests measuring elementary students' cognitive skills; Behavioral Assessment Tools: Observational checklists and teacher-reported questionnaires evaluating student engagement, teamwork, and interest in science and Psychomotor Skills Assessment: Tasks designed to evaluate hands-on abilities and practical application of science concepts.

RESULTS

Research on the level of science literacy skills that exist in elementary school

Table 2. Level statistics of science literacy skills.

		Frequency	Percentage	Mean	Std.Dev.
Low	1-8	20	50.0	8.51	3.33
Moderate	9-16	11	27.5	12.45	2.43
High	17-24	9	22.5	19.78	1.87

Table 2 showed the level of elementary pupils science literacy skill. 50% of the participants possessed a low level of science literacy skill, 27.5% of the participants possessed a moderate level of science literacy skill while 22.5% possessed a high level of science literacy skill. The result indicated that the participants possessed a low level of science literacy skill.

Research Question 2: What is the level of behavioral problems in elementary school children?

Table 3. Level statistics of elementary children behavioral problems.

		Frequency	Percentage	Mean	Std.Dev.
Low	1-60	12	30.0	16.32	4.22
Moderate	61-120	12	30.0	92.72	19.95
High	121-160	16	40.0	139.46	12.70

Table 3 showed the level of elementary pupils' behavioral problems. 30% of the participants possessed a low level of behavioral problems, 30% of the participants possessed a moderate level of



behavioral problems while 40% possessed a high level of behavioral problems. The result indicated that the participants possessed a high level of behavioral problems.

Result on the significant impact of science literacy skills on elementary school children behavioral problems.

The analysis results regarding "Science literacy skills on elementary school children's behavioral problems" are presented in Table 4.

Table 4. ANOVA showing the significant impact of science literacy skills on elementary school children behavioral problems.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	448.907	22	32.065	3.431	.000
Within Groups	794.403	17	9.346		
Total	1243.310	39			

Table 4 shows the F-value 3.431 which indicates a significant impact of science literacy skills on elementary school children behavioral problems. The significant level .000 is shown which is lesser than .05 which indicates that there is a significant impact of science literacy skills on elementary school children behavioral problems.

Result on the significant difference in the male and female science literacy skills

The analysis results regarding "male and female science literacy skills" are presented in Table 5.

Table 5. T-test analysis showing the significant difference in the male and female science literacy skills.

	N	Mean	Std.Dev.	Df	T	Sig
Male	50	11.50	3.21	38	.365	.015
Female	50	11.24	3.88			

Table 5 shows the t-score value of .365, and the mean scores of the male and female teachers are 11.50 and 11.24 respectively and a standard deviation of 3.21 and 3.88 respectively which indicates that there is a significant difference between the male and female science literacy skills. The table also shows .015 significant level which also indicates that there is a significant difference.

DISCUSSION, CONCLUSIONS, and SUGGESTIONS

According to the study, the level of science literacy skills that exist in elementary school was shown. The results suggest that science literacy skills in the studied elementary school children are generally low, with 50% of the participants demonstrating low levels of science literacy, 27.5% at a moderate level, and only 22.5% exhibiting high levels of science literacy. This indicates that a significant portion of the children lacks proficiency in fundamental scientific concepts, which can hinder their overall academic success and development in science-related subjects. The result is not in accordance with the result of Kartimi (2021) which revealed that students' learning activities in the application of scientific learning experienced an increase in science literacy skills with very strong criteria.

The low levels of science literacy observed in the majority of the participants are consistent with trends observed in various educational settings globally, where elementary school children often lack foundational science knowledge due to gaps in curricula or inadequate teaching methods. As identified in the literature review, science literacy is essential for children to engage critically with scientific ideas and participate meaningfully in discussions about science, technology, and the environment. According to research by Aikenhead (2006), early exposure to science education and



fostering science literacy from a young age significantly influences students' long-term interest and success in the subject.

In terms of behavioral problems, the results reveal that a significant proportion (40%) of the children had high levels of behavioral issues, while 30% exhibited moderate levels, and another 30% displayed low levels. The high prevalence of behavioral problems highlights an area of concern that could potentially affect the educational outcomes of the children. Behavioral problems, such as inattentiveness, impulsiveness, and non-compliance, can interfere with the learning process, making it difficult for children to benefit from educational opportunities. This aligns with the findings of studies, such as those by Barkley (2015), which link behavioral issues to academic underachievement, especially in science and other cognitive domains. The result also agrees with the result of Amany Sobhy Sorour et al (2014) which shows that prevalence of total difficulties scores among primary school children with learning disabilities was 98.1% abnormal difficulties compared to 79.7% of normal children. Furthermore, the result shows the significant impact of science literacy skills on elementary school children behavioral problems. The result indicated that there is a significant impact of science literacy skills on elementary school children behavioral problems. The analysis of the relationship between science literacy skills and behavioral problems through an ANOVA revealed a significant impact, suggesting that children with higher levels of science literacy tend to exhibit fewer behavioral problems. This relationship is significant because it implies that enhancing science literacy could help mitigate some of the behavioral problems observed in elementary school children. According to research, cognitive engagement with subjects like science fosters a sense of achievement and curiosity, which can positively affect behavior and reduce disruptions in the classroom (Linnenbrink & Pintrich, 2002). Therefore, addressing science literacy may not only improve academic performance but also promote better behavioral outcomes.

The analysis also indicated a significant gender difference in science literacy skills, with males scoring slightly higher than females. This finding resonates with global educational research, which frequently highlights gender disparities in science achievement, often attributing them to social, cultural, and educational factors (Blickenstaff, 2005). While the difference in means was small, it is important to recognize and address gender disparities in science education, as early experiences with science can shape future interests and career choices in STEM fields. The result confirms the result of Murat Genç (2015) which reveals that In terms of gender of the students, a significant difference emerged after the application, when compared to before the application.

Conclusion

This study's findings underline the significant challenges related to science literacy and behavioral problems among elementary school children. The low levels of science literacy observed, along with the high incidence of behavioral problems, point to the need for urgent interventions to improve both academic and behavioral outcomes for these children. The significant relationship between science literacy and behavioral problems suggests that interventions aimed at enhancing science education may also have the added benefit of reducing behavioral issues, thereby improving the overall learning environment.

Additionally, the gender differences observed in science literacy skills necessitate targeted efforts to promote gender equity in science education, ensuring that both boys and girls have equal opportunities to excel in this crucial area. Future educational reforms should focus on fostering a positive attitude toward science among all students, irrespective of gender, and providing teachers with the necessary tools and support to engage students effectively.

Given the low levels of science literacy among elementary pupils, it is crucial to design and implement more engaging, hands-on science programs that encourage curiosity and critical thinking from an early age. Teachers should be trained to adopt inquiry-based teaching strategies that foster problem-solving and scientific reasoning. Since the findings suggest a link between science literacy and behavioral problems, integrating behavioral management techniques into science teaching could



help address disruptive behaviors in the classroom. For example, projects that require teamwork and collaborative problem-solving can help build positive social skills, while science-based activities may keep students engaged and focused. Moreover, to address the observed gender disparity in science literacy, schools should actively encourage female students to pursue science subjects. This could include mentoring programs, female role models in science, and gender-sensitive curricula that break down stereotypes and challenge gendered expectations about scientific ability.

Teachers should be provided with professional development opportunities to enhance their science teaching skills and better manage behavioral issues in the classroom. This may involve training on differentiated instruction, culturally relevant pedagogy, and the use of educational technology to make science more accessible and engaging. Schools should encourage greater parental involvement in supporting children's science education, whether through at-home learning activities or participation in school science fairs and projects. Engaging the broader community in educational activities can create a more supportive environment for science learning. Future studies may explore the specific causes of the low science literacy levels and the high behavioral problems, including an examination of environmental, socio-economic, and cultural factors that may be influencing the results. Longitudinal studies could also help track the impact of science literacy interventions on long-term academic and behavioral outcomes.

Ethics and Conflict of Interest

All ethical rules were observed at all stages of the research. Authors declare that they acted in accordance with ethical rules in all processes of the research. Authors declare that there is no conflict of interest between the authors of this work.

Author Contribution

All authors contributed equally to the research.

Data availability

The data that support the findings of this study are available on request from the corresponding author.

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DEVELOPMENT OF A TRAUMA-SENSITIVE SCHOOL SCALE: VALIDITY AND RELIABILITY STUDY

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Received: July 9, 2025

Accepted: October 26, 2025

Published: December 31, 2025

Suggested Citation:

Bozdemir, E., & Nejat İra, N. (2025). Development of a trauma-sensitive school scale: Validity and reliability study. *Turkish International Journal of Special Education and Guidance & Counseling (TIJSEG)*, 14(2), 241-257.



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Abstract

This study aims to develop a valid and reliable scale to measure teachers' and school administrators' perceptions of trauma-informed school practices at the secondary education level. Using a deductive scale development approach grounded in the trauma-informed school literature, an initial item pool consisting of 116 items was generated based on the six core principles identified by SAMHSA and related theoretical models. Following expert panel review and content validity analysis, the scale was reduced to 63 items and administered to 424 teachers and administrators working in public secondary schools in Çanakkale. After data screening, analyses were conducted using 398 valid responses. Confirmatory factor analysis supported a six-factor structure with acceptable model fit indices ($\chi^2/df = 2.63$; RMSEA = .064). Internal consistency analyses indicated high reliability for both the overall scale (Cronbach's $\alpha = .97$) and its subdimensions (α values ranging from .80 to .92). The findings demonstrate that the Trauma-Informed School Scale is a psychometrically sound instrument that can be used to assess trauma-informed practices in secondary schools. The scale may support future research, policy development, and professional development initiatives aimed at promoting trauma-informed school environments.

Keywords: Trauma-informed schools, scale development, confirmatory factor analysis, secondary education, teacher perceptions.

INTRODUCTION

Trauma, particularly when experienced during childhood, can have long-lasting effects on individuals' cognitive, emotional, and behavioral development. Schools are institutions where children spend a significant portion of their daily lives and where their developmental, social, and academic processes are shaped. For this reason, structuring the school ecosystem with trauma-informed knowledge has become a critical necessity that contributes not only to students' well-being but also to the well-being of teachers and families (SAMHSA, 2014). Supporting students who have experienced trauma constitutes a highly complex and multidimensional responsibility for school staff. Alisic's (2012) study reveals that teachers—particularly at the primary school level—often experience uncertainty regarding how to intervene with students following trauma. In that study, teachers reported receiving insufficient guidance from school administrators on balancing the needs of students who have experienced trauma with those of other students in the classroom; consequently, they emphasized the need for school principals to establish structures that enhance knowledge and skills related to post-trauma support (Alisic, 2012, p. 51). Given the increasing prevalence of trauma among children, the development of the Trauma-Informed Schools (TIS) approach, which can guide school personnel, has become an essential requirement. The literature highlights six core guiding principles for the effective implementation of this approach.



The first core principle of trauma-informed schools is that school staff recognize childhood trauma and understand how trauma affects children's development and learning processes (Cole, Eisner, Gregory, & Ristuccia, 2013; SAMHSA, 2014). This responsibility is not limited to teachers and principals but encompasses all school personnel. Teachers' understanding of how trauma influences children's relationships with peers and adults plays a critical role in developing meaningful relationships with students. Similarly, recognizing the impact of these relationships on academic performance lies at the center of the trauma-informed school approach (SAMHSA, 2014).

The second guiding principle involves teachers' and administrators' ability to recognize signs and symptoms of trauma (SAMHSA, 2014). Because the effects of trauma can vary significantly depending on a child's age, developmental level, and gender, identifying trauma-related symptoms is often challenging. The context in which the trauma occurs (e.g., caregiver neglect or natural disasters) also shapes how children express their experiences. Therefore, school principals are expected to collaborate with district administrators to allocate time and resources that enable staff to receive training on recognizing trauma symptoms.

The third guiding principle emphasizes the necessity of establishing a holistic and responsive system within trauma-informed schools that considers four critical domains of functioning. These domains are defined as: (1) relationships with peers and adults (communication), (2) regulation of emotions, behavior, and attention (self-regulation), (3) academic and non-academic achievement (achievement), and (4) physical and emotional health (health) (Cole et al., 2013, p. 22). Scott (2016) notes that these four domains are closely interconnected and provide a structured framework that enables teachers and administrators to respond appropriately to all students (p. 53). Focusing solely on observable social or behavioral reactions may cause teachers to overlook students' internal and less visible trauma-related indicators.

Early intervention processes constitute an important component of school sensitivity to trauma. While traditional school structures have generally relied on crisis-oriented plans, the trauma-informed school approach enables schools to identify students who have experienced trauma beyond temporary stress at an early stage (Ko et al., 2008). Accordingly, developing intervention plans that conceptualize students' behaviors as reflections of trauma rather than intentional misconduct represents a key component of the trauma-informed approach (Scott, 2016). These plans include explicit and systematic instructional practices that help children recognize their emotions and understand emotional triggers (Hodas, 2006). In this context, early intervention serves as a preventive mechanism against reactive crisis management.

The fourth guiding principle involves the regular provision of meaningful collaboration opportunities among teachers. Ronfeldt, Farmer, McQueen, and Grissom (2015) demonstrate that well-structured collaborative practices significantly enhance teacher development in school settings (p. 498). Trust- and support-oriented working environments enable teachers to respond more effectively to students' needs (Day, 2014, p. 642). Cole et al. (2013) emphasize that time, shared planning, and collaboration are essential for sustaining school-wide trauma-informed practices (p. 79). Supporting students after trauma is not solely the responsibility of school counselors or social workers; rather, it is a shared responsibility of all school personnel, including principals.

The fifth guiding principle involves creating environments in which all students can feel physically, emotionally, socially, and academically safe. Cole et al. (2013) and SAMHSA (2013) indicate that a safe school climate forms the foundation for restorative and reasonable disciplinary processes. Academic safety is particularly important for sustaining learning processes, as students must be able to take learning risks without fear of making mistakes. Creating such a safe atmosphere depends largely on principals' development of fair and reasonable school procedures.

The sixth and final principle requires establishing strong and open communication channels among students affected by trauma, their families, and the school community (Cole et al., 2013, p. 63).



Strengthening school–family collaboration helps parents feel valued and accepted within the school environment, which serves as an important source of support in both daily routines and crisis situations (Masten, Cutuli, Herbers, & Reed, 2009). When principals create mechanisms that allow families to safely share their knowledge and observations about their children, trust increases for both students and families (Cole et al., 2013). Teachers’ collaboration with families can have a protective effect for students coping with challenging life experiences. Moreover, trauma-informed schools can strengthen the professional support capacity of the school ecosystem by developing policies that encourage collaboration with external professionals and stakeholders (Hodas, 2006). Within this framework, all staff members are expected to acknowledge the importance of establishing meaningful connections to ensure that students affected by trauma can access experiences of success.

Trauma undermines students’ sense of safety, leading them to feel disconnected from their surroundings, a condition that often manifests as oppositional or defiant behaviors (Scott, 2016; Alisic, 2012). Children who have experienced trauma may display reactions such as anger, fear, or anxiety, and these behaviors may be mistakenly interpreted by adults as disciplinary problems (Ford, 2002). For this reason, it is a critical approach for school staff to recognize trauma and to interpret students’ behaviors as indicators rather than as intentional misconduct. School leadership and staff should collaborate to create a safe environment that helps students cope with these behaviors. In addition, providing opportunities for students to practice their developing skills within appropriate contexts constitutes an important component of trauma-informed practices (Cole et al., 2013). Moreover, school personnel’s efforts to establish a positive school climate provide essential support for the academic and social development of students who have experienced trauma (Wright, 2017). Teachers’ implementation of consistent classroom rules, predictable structures, non-threatening and non-intimidating communication, and activities that strengthen safety-related skills are effective in building trauma-informed learning environments (Wright, 2017). Such approaches reduce students’ emotional burden and increase their engagement in learning (Walkley & Cox, 2013).

Establishing a trauma-informed school requires a systematic transformation of the organization at the levels of policies, procedures, and practices (SAMHSA, 2014; Scott, 2016). As illustrated in Scott’s (2016) model, addressing these three domains in an interconnected manner creates a sustainable structure that provides continuous support for the entire school community. The trauma-informed school approach has the potential to exert a protective effect, particularly for vulnerable students, by positively altering their life trajectories (McInerney & McKlindon, 2014). Therefore, it is expected that all school personnel develop a shared commitment to understanding the effects of trauma, ensuring student safety, supporting social relationships, and demonstrating consistency in intervention processes. The literature also emphasizes that school principals can assume important roles in embedding a trauma-informed school culture by engaging in coaching, modeling desired practices, and allocating time for teacher collaboration.

Overall, the literature indicates that trauma can have long-term negative effects on secondary school students across academic, emotional, and social domains and may even lead to neurobiological consequences that affect brain development (Perry, 2006; Van der Kolk, 2014). Research demonstrates that students who have experienced trauma face significant difficulties in attention, memory, executive functioning, and learning processes, which in turn negatively affect school achievement and classroom adjustment (Shonkoff et al., 2012; Perfect, Turley, Carlson, Yohanna, & Saint Gilles, 2016). In contrast, the Trauma-Informed Schools (TIS) approach offers a holistic framework that minimizes these effects and strengthens students’ healthy development based on safety, belonging, and consistent support (Cole et al., 2013; Brunzell, Waters, & Stokes, 2016). Accordingly, the adoption of this approach by all school staff is emphasized as a necessity that not only enhances students’ academic and social success but also strengthens school climate and community well-being (Bath, 2008; Blitz, Andersen, & Saastamoinen, 2016).



In Türkiye, children face a heightened risk of exposure to traumatic experiences due to disasters, migration processes, socioeconomic inequalities, and societal stressors (Şimşek, Kocabaş, & Yalçın, 2021). Therefore, adapting the trauma-informed school approach to the national context represents both a current need and a developmental area aligned with international best practices. Addressing trauma-informed school principles holistically in relation to school climate, teacher attitudes, and school–family collaboration offers a sustainable structure that strengthens not only the safety, sense of belonging, and academic success of students who have experienced trauma, but also those of all students. Teachers are the stakeholders who most directly experience the effects of trauma within schools through their classroom observations, their capacity to evaluate students’ emotional–behavioral patterns, and their daily interactions. Consequently, teachers’ perspectives are of critical importance for

- assessing the school’s level of trauma sensitivity,
- identifying challenges in practice,
- determining teachers’ training and support needs, and
- guiding the development of school policies (Herman, Reinke, & Eddy, 2020; Eklund, Olinger Steeves, Kilpatrick, & Bailey, 2018).

Accordingly, this study, which is based on the perspectives of teachers working at the secondary education level, has the potential to make an original contribution to the existing body of knowledge and to guide both practice and policy development processes.

METHOD

Research Design

This study was conducted using a descriptive survey design. Descriptive survey designs are among the fundamental quantitative research approaches that aim to describe existing characteristics of a phenomenon, attitude, or situation as they naturally occur (Cohen, Manion, & Morrison, 2018). Accordingly, in this study, a questionnaire was administered to administrators and teachers working in public secondary schools to determine their perceptions regarding the subdimensions of trauma sensitivity and to examine whether these perceptions differ significantly according to staff position (principal, vice principal, teacher) and various personal and demographic variables. The literature emphasizes that descriptive survey designs allow for the systematic analysis of current conditions based on data obtained from large samples (McMillan & Schumacher, 2010).

Population and Sample

The population of this study consists of administrators and teachers working in secondary education institutions located in the province and districts of Çanakkale, Türkiye. As of the 2024–2025 academic year, administrators and teachers employed in public secondary schools in Çanakkale were defined as the study population. Numerical data related to the population were obtained through the databases of the Turkish Statistical Institute (TÜİK) and the Ministry of National Education Information Systems (MEBBİS). A stratified sampling method was employed to determine the sample. In order to classify the 12 districts of Çanakkale into more homogeneous sub-strata, the “Socio-Economic Development Index of Districts (SEGE)” study conducted by the General Directorate of Development Agencies (KAGM, 2022) was used as a reference. According to this classification, the districts of Çanakkale are categorized into four levels based on their level of development (KAGM, 2022). In determining the sample size, commonly accepted criteria in quantitative research were taken into account. Following the guidelines proposed by Tabachnick and Fidell (2007), a sample size of 100 is considered “poor,” 200 “fair,” 300 “good,” 500 “very good,” and 1,000 or more “excellent.” Proportional stratified sampling was used in selecting the sample. In this method, the number of participants selected from each stratum is determined proportionally (at



least 30%) based on the size of the stratum within the population, thereby increasing the representativeness of the sample.

Within this framework, the sample size for each stratum was calculated using the formula

$$nh = (Nh / N) \times n,$$

ensuring that each stratum was included in the sample in proportion to its weight in the population (Kish, 1965; Groves et al., 2009).

Where:

nh = number of participants selected from stratum *h*

Nh = population size of stratum *h*

N = total population size

n = total sample size

Example:

$$nh = (838 / 2355) \times 424 = 134 \text{ (Central District)}$$

Table 1. Distribution of the Sample in Secondary Education Institutions in Çanakkale Province

Level	District	Number of Schools (Population)	Number of Teachers (Population)	Number of Teachers (Sample)	Questionnaires Distributed	Collected/Cleaned Forms
I	Central	17	838	134	256	150 / 118
	Bozcaada	1	14	0	0	0
	Biga	10	355	66	130	115 / 102
II	Gelibolu	7	198	40	60	50 / 44
	Gökçeada	3	53	0	0	0
	Ezine	4	107	26	50	40 / 32
	Çan	8	208	42	80	70 / 44
III	Lâpseki	3	93	0	0	0
	Ayvacak	7	142	32	75	60 / 49
	Eceabat	1	25	0	0	0
IV	Bayramiç	4	118	30	60	45 / 35
	Yenice	4	111	0	0	0
Total	12 Districts	69	2355	370	761	530 / 424

As shown in Table 1, the study population consists of 69 secondary education institutions and a total of 2,355 administrators and teachers. At the district level, the sample included the Central District (50%) from Level I; Biga and Gelibolu (66%) from Level II; Ayvacık, Çan, and Ezine (80%) from Level III; and Bayramiç (50%) from Level IV. Based on the formula above, the sample distribution was determined as follows: Central District (134), Biga (66), Gelibolu (40), Ezine (26), Çan (42), Ayvacık (32), and Bayramiç (30).

In addition, according to the literature, it is assumed that a sample size at least five times the number of scale items ($5 \times 74 = 370$) is sufficient for representation (Tavşancıl, 2010). To account for potential data loss during analysis (e.g., outliers, missing or invalid responses), it was targeted to collect approximately 15% more data than the minimum required sample size. Accordingly, a total of 761 questionnaires were distributed, 530 were returned, and 424 were deemed valid and included in the analysis.

Demographic characteristics of participants

The demographic characteristics of the 424 participants included in the study are summarized below. The largest age group consisted of participants aged 41–50 (41.04%), followed by those aged 31–40 (28.77%) and 51 years and above (24.53%). The 21–30 age group constituted the smallest proportion (5.66%). Overall, the sample was predominantly composed of middle-aged and older participants,



suggesting that age may be a relevant factor in variables related to professional experience. In terms of marital status, the majority of participants were married (83.02%), while 16.98% were single. Regarding gender distribution, males (58.73%) were more represented than females (41.27%), indicating a relatively balanced distribution. In terms of teaching fields, verbal subjects (39.62%) and vocational subjects (34.91%) had the highest representation, whereas artistic/physical subjects (5.90%) constituted the least represented group. With respect to educational attainment, participants holding a bachelor's degree (75.71%) outnumbered those with postgraduate degrees (24.29%). In terms of professional seniority, participants with 21 years or more of experience formed the largest group (45.05%), while those with five years or less constituted the smallest proportion (6.84%). This dominance of experienced teachers suggests that the sample is suitable for examining the effects of seniority. Regarding tenure at the current school, participants with 0–5 years of service constituted the largest group (49.76%), whereas those with 21 years or more accounted for only 9.67%. In terms of school type, vocational high schools were the most represented (67.92%), while social science and science high schools accounted for a relatively small proportion (4.48%). At the district level, the Central District (27.83%) and Biga (24.06%) were the most represented, whereas Ezine (7.55%) and Bayramiç (8.25%) had lower representation.

Data Collection Instruments

In this study, a personal information form developed by the researcher and the Trauma-Informed School Scale, also developed by the researcher, were used as data collection instruments.

Scale Development Process

The personal information form was developed by the researcher in accordance with the purpose of the study and consists of nine (9) items designed to identify the demographic characteristics of secondary school administrators and teachers included in the study group. These characteristics include age, gender, marital status, teaching field, educational attainment, professional seniority, length of service at the current school, type of high school, and district of employment. In this study, the Trauma-Informed School Scale, developed by the researcher and consisting of a total of 74 items, was used. The scale was developed to determine the perceptions of teachers working in public high schools regarding the concept of trauma sensitivity. Karasar (2009) identifies the fundamental steps to be followed in the scale development process and emphasizes that validity and reliability studies constitute the core components of this process. Although various types of validity are discussed in the literature, content validity and construct validity are reported to be the most frequently employed forms of validity in scale development studies (Erişen, 2001; Güleş, 2013; Akgül, 2017). Based on these common principles and adopting a deductive approach, a comprehensive model of the scale development process followed in this study was established. This model included obtaining expert opinions to ensure content validity and conducting confirmatory factor analyses to establish construct validity. When a scale is grounded in a well-defined theoretical framework and there is strong prior knowledge regarding which items load onto which factors, researchers may directly employ Confirmatory Factor Analysis (CFA) without the necessity of Exploratory Factor Analysis (EFA) (Kline, 2016). For this reason, CFA was directly applied in the present study. In addition, internal consistency analyses were conducted to ensure the reliability of the items, and following the necessary revisions, the scale was finalized for implementation. All normality and reliability analyses were conducted using IBM SPSS 25, while Confirmatory Factor Analysis was performed using IBM AMOS 26.

Development of the Item Pool

The deductive approach was preferred in this study because the trauma-informed school (TIS) framework has been theoretically well established in the international literature and is structured around clearly defined principles, dimensions, and implementation models. Strong theoretical frameworks—such as Bath's (2008) *three pillars* model, SAMHSA's (2014) trauma-informed school framework, Brunzell et al.'s (2016) school-based trauma-informed model, and Scott's (2016) work examining the relationship between school policies, procedures, and practices and the six guiding



principles of trauma-informed schools—make it both possible and necessary to derive conceptual dimensions directly from theory when developing a scale. Accordingly, the deductive approach facilitates the development of items and dimensions based on existing theoretical foundations, thereby enhancing the conceptual coherence and theoretical validity of the scale (DeVellis & Thorpe, 2021). In structures where the theoretical framework is clearly defined in advance, the deductive method provides a more systematic item development process that strengthens construct validity. In this study, the six guiding principles identified for trauma-informed schools constitute the dimensions of the scale. Furthermore, the items comprising these dimensions were developed based on school policies, procedures, and practices (Ministry of National Education [MoNE], 2019).

The principles defined as scale dimensions are as follows:

- Principle 1: Instructional staff understand how childhood trauma may affect students' learning (Dimension 1).
- Principle 2: Instructional staff recognize the signs and symptoms of trauma (Dimension 2).
- Principle 3: Trauma-Informed Schools maintain a responsive school climate that addresses the following four core domains of functioning (Dimension 3):
 1. Relationships with peers and adults (communication),
 2. Self-regulation of behavior, emotions, and attention (self-regulation),
 3. Achievement in academic and non-academic domains (achievement),
 4. Physical and psychosocial well-being (health).
- Principle 4: A team-based approach is adopted at the school level for all students before, during, and after crises or traumatic events, and responsibility is shared among all staff (Dimension 4).
- Principle 5: School environments support all students in feeling physically, socially, emotionally, and academically safe (Dimension 5).
- Principle 6: Open connections are established among students exposed to trauma, their families, and school staff (Dimension 6).

Before writing the scale items, documents and practices related to crisis management within the Turkish education system were examined. Fieldwork was conducted and interviews were held with experts working at the Çanakkale Guidance and Research Center regarding implemented curricula. Following these consultations, feedback on the drafted items was obtained and incorporated. Accordingly, while the subdimensions were derived from international research, the items were developed based on the crisis management curricula implemented in the schools where the study was conducted. Drawing on both theoretical frameworks and practice-based data in the development of the Trauma-Informed School Scale strengthens the content and construct validity of the measurement instrument. While the theoretical foundation ensures the scientific definition of core dimensions such as safe school climate, relational trust, regulation skills, and understanding trauma responses (Brunzell et al., 2016; Cole et al., 2013), practice-based data reveal context-specific behavioral patterns and needs encountered by teachers in daily classroom interactions. In this way, the items not only reflect trauma-informed principles defined in the literature but also become meaningful and functional within real school settings (Tay & Jebb, 2017). Based on these sources, an initial item pool consisting of 116 items was generated.

Expert Review / Panel

The draft version of the scale was distributed for expert review to a total of 15 individuals, including 11 faculty members conducting research in the fields of guidance and counseling and educational administration and supervision at various universities (5 Professors, 1 Associate Professor, and 5



Assistant Professors), as well as 4 guidance and psychological counseling teachers working at Guidance and Research Centers affiliated with the Ministry of National Education.

According to researchers, obtaining objective results in calculations related to content validity is directly dependent on both the number and the qualifications of the experts involved. In this context, it is recommended that the number of experts included in content validity studies range from a minimum of 5 to a maximum of 40 (Ayre & Scally, 2014; Lawshe, 1975). In the present study, the content validity process was conducted based on the Lawshe technique (1975). Accordingly, a three-point evaluation form consisting of the options “Essential,” “Needs Revision,” and “Should Be Removed” was sent to the experts in order to obtain their judgments regarding each item. The experts were asked to evaluate each item in terms of content validity and to mark the option they considered appropriate. In addition, space was provided between items to allow experts to suggest revisions or provide written feedback for each item. The Content Validity Ratio (CVR) is an item-level statistic based on content validity that reflects expert judgments regarding whether an item should be retained in the scale. CVR values are calculated using the formula proposed by Lawshe (1975).

$$KGO = \frac{Nu - N \div 2}{N \div 2}$$

Based on the evaluations obtained from the 15 experts consulted in this study, the critical **Content Validity Ratio (CVR)** required for an item to be retained in the scale was determined to be **.600 or higher** (Ayre & Scally, 2014). Items with CVR values below this threshold were considered insufficient in terms of content validity and were therefore deemed appropriate for removal from the scale. Accordingly, the **Content Validity Index (CVI)** was calculated by taking the arithmetic mean of the CVR values of the items that were decided to be retained in the scale. In other words, the CVI represents an overall indicator reflecting the scale’s content validity based on expert judgments regarding the appropriateness of the retained items (Lawshe, 1975).

$$KGİ = \frac{\text{Toplam KGO}}{\text{Madde Sayısı}}$$

Following expert evaluations, CVR values were calculated for each item and assessed against the critical value. As a result of this evaluation, a total of 42 items (M1, M3, M6, M7, M8, M16, M18, M20, M21, M22, M23, M25, M27, M30, M31, M32, M33, M34, M37, M39, M41, M44, M47, M50, M62, M74, M75, M77, M78, M81, M87, M91, M92, M93, M97, M100, M102, M105, M106, M109, M113, M114) were removed from the scale because their CVR values fell below the critical threshold (.600).

Among the remaining items, 11 items (M4, M40, M45, M53, M55, M57, M64, M67, M102, M104, M107) met the critical CVR value (.600); however, because a considerable number of experts (three experts) recommended their removal, these items were discussed during the expert panel meeting and ultimately removed from the scale based on consensus. Conversely, some items (M83, M108) did not reach the critical CVR value (.467), but because a significant number of experts (three experts) recommended revision rather than removal, these items were revised by the panelists and retained in the scale. Additionally, several items (M15, M19, M24, M49, M85, M86) were revised in terms of wording and clarity following panel discussions.

After these revisions, expert panel members also indicated that certain items would be more appropriately represented under different dimensions than initially assigned. The changes made based on panel recommendations are summarized below:

- Item M9 was initially categorized under Dimension 1 but was reassigned to Dimension 2 following expert panel feedback.
- Item M10 was moved from Dimension 1 to Dimension 3.



- Item M11 was reassigned from Dimension 1 to Dimension 4.
- Item M26 was moved from Dimension 2 to Dimension 4.
- Item M38 was reassigned from Dimension 3 to Dimension 1.

In addition, the overall Content Validity Index (CVI) of the scale was calculated as .749 and compared with the critical CVR value. Since the CVI (.749) exceeded the critical CVR threshold (.600), this finding indicates that the retained items demonstrate statistically adequate and meaningful content validity (Lawshe, 1975; Yeşilyurt & Çapraz, 2018).

Furthermore, the expert panel reached a unanimous agreement regarding the appropriateness of the predefined six-dimensional theoretical structure of the scale and the use of a five-point Likert-type response format ranging from (1) *Strongly Disagree* to (5) *Strongly Agree*. As a result of incorporating expert feedback and panel decisions, the initial item pool of 116 items was reduced to 63 items, and the draft scale was finalized and deemed ready for administration to the study sample.

RESULTS

Construct Validity and Reliability Analysis

Normality test of the trauma-informed school scale

Prior to conducting the Confirmatory Factor Analysis (CFA), the distribution of the scores obtained from the Trauma-Informed School Scale was examined to determine whether the assumption of normality required for multivariate analyses was met. Within this scope, descriptive statistics, skewness and kurtosis coefficients, and distribution graphs were evaluated collectively.

Before the normality analysis, skewness and kurtosis values were examined at the item level using the ± 2 criterion. It was found that the kurtosis values of several items (M37 = 2.306, M52 = 2.041, M59 = 2.047, M63 = 2.151, M73 = 2.707, M74 = 2.551) exceeded the ± 2 threshold. Although the skewness values of these items were within acceptable limits (± 2), the elevated kurtosis coefficients indicated a leptokurtic distribution.

The maximum likelihood (ML) estimation method, which is commonly used in CFA, requires that variables approximate a normal distribution at least at the univariate level. Excessive kurtosis may lead to biased parameter estimates and inaccurate standard errors (Kline, 2016; Hair et al., 2019). High kurtosis suggests that a large proportion of participants selected similar response categories, thereby reducing item variance and weakening the item's ability to discriminate between different levels of the measured construct (DeVellis, 2017). Removing items that violate normality assumptions contributes to more stable factor loadings, improved fit indices, and more reliable error variances in CFA results (Brown, 2015; Tabachnick & Fidell, 2019). Based on these considerations, items M37, M52, M59, M63, M73, and M74 were removed from the scale prior to CFA. Consequently, CFA was conducted using 57 items.

Following the removal of 26 outliers identified during the normality assessment, the analyses were carried out with 398 valid cases. According to the descriptive statistics, the mean score of the scale was calculated as 3.91, the median as 3.95, and the 5% trimmed mean as 3.93. The close proximity of these measures of central tendency indicates that the distribution approximates symmetry (Tabachnick & Fidell, 2019). The standard deviation of 0.58 suggests that the scores are moderately dispersed around the mean, while the narrow 95% confidence interval supports the reliability of the sample mean.

The skewness coefficient was found to be -0.624 and the kurtosis coefficient 0.541 . These values fall within the ± 1 range, indicating no substantial deviation from normality (George & Mallery, 2010). Moreover, the ratios of skewness and kurtosis values to their respective standard errors did not exceed ± 2 , further supporting the assumption of normality (Hair, Black, Babin, & Anderson, 2019). Examination of the histogram revealed that the observed score distribution closely aligned with the

normal distribution curve and exhibited a unimodal structure. The minimum (1.96) and maximum (5.00) values fell within the theoretical limits of the scale, indicating that extreme values did not pose a threat to the normality assumption.

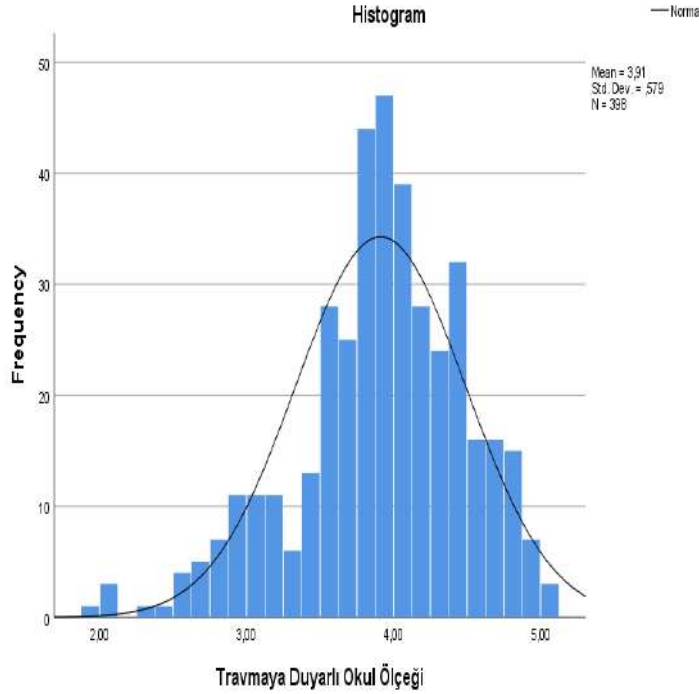


Figure 1.
Descriptives and

histogram graph.

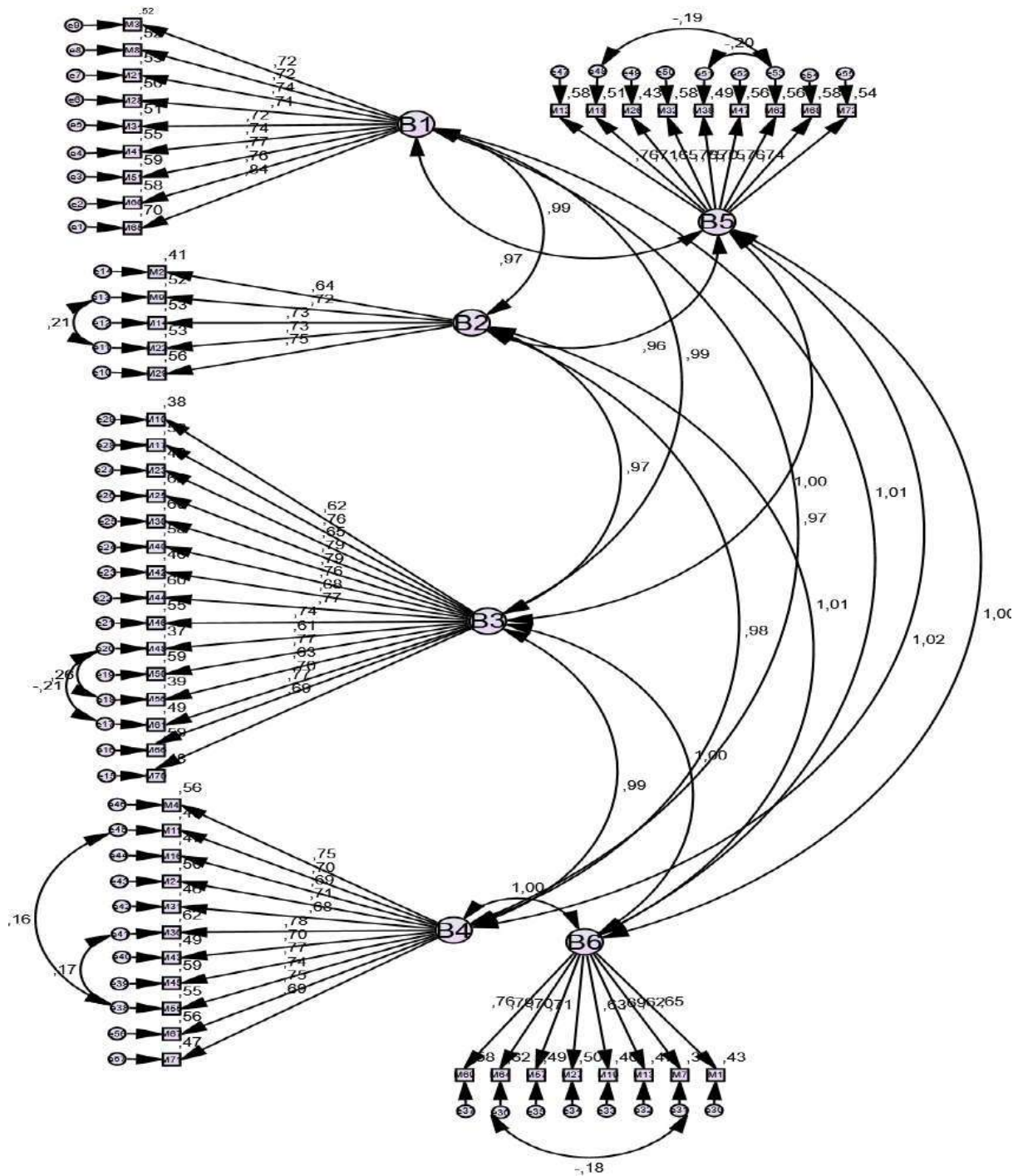
Considering the sample size ($N = 398$), the minor deviations in skewness and kurtosis were not deemed problematic for CFA. Based on the central limit theorem, the data were considered sufficiently normal for multivariate analyses (Field, 2018). Accordingly, it was concluded that the data obtained from the Trauma-Informed School Scale satisfied the normality assumption required for CFA, and the use of parametric statistical methods was deemed appropriate.

Confirmatory factor analysis (CFA) of the trauma-informed school scale

This analysis was conducted to confirm the factor structure of the scale, test its construct validity, and evaluate the statistical usability of the measurement model, particularly in scale development studies. Decisions regarding the adequacy of model–data fit were based on fit indices obtained from CFA.

The model analyzed in Figure 2 was constructed within a predefined multidimensional theoretical framework based on the trauma-informed school literature. This indicates that the factor structure was theory-driven rather than data-driven, aligning with the theory-confirming function of CFA (Brown, 2015). The majority of items exhibited factor loadings of .70 or higher, suggesting that the items meaningfully represent their respective latent constructs. Although some items had factor loadings approaching 1.00, this was considered a statistical limitation rather than a systematic issue across the model (Kline, 2016). Similarly, low error variances observed in a limited number of items were not deemed sufficient to compromise the overall integrity of the factor structure.

Moderate inter-factor correlations within theoretically expected ranges support the notion that trauma-informed school constructs are related yet distinct dimensions (Hair et al., 2019).



CMIN=3993,229; DF=1516; CMIN/DF=2,634; RMSEA=,064; CFI=,838; GFI=,722

Figure 2. Confirmatory factor analysis results of the trauma-informed school scale.

Overall, CFA results indicated that the model demonstrated generally acceptable fit. However, some fit indices (GFI = 0.697, AGFI = 0.585, CFI = 0.720, NFI = 0.645, NNFI/TLI = 0.745, RFI = 0.644, IFI = 0.730) did not meet recommended criteria. Based on modification indices, model modifications were applied to improve fit by reducing model-data discrepancies (Kline, 2016). After these modifications, the model was reanalyzed, and improved fit values were obtained, as presented in Table 2.


Table 2. Goodness-of-Fit Indices of the Trauma-Informed School Scale (CFA)

Index	Model Value	Excellent Fit	Acceptable Fit	Interpretation
X ²	3993.229			
Sd	1516			
P değeri	.00			
X ² /sd	2.634	X ² /sd ≤ 3	3 < X ² /sd ≤ 8	Excellent fit
RMSEA	.064	0 ≤ RMSEA ≤ .05	.05 < RMSEA ≤ .08	Acceptable Fit
GFI	.722	.95 ≤ GFI ≤ 1.00	.90 ≤ GFI < .95	Acceptable
AGFI	.697	.90 ≤ AGFI ≤ 1.00	.85 ≤ AGFI < .90	
CFI	.838	.97 ≤ CFI ≤ 1.00	.95 ≤ CFI < .97	Acceptable
NFI	.763	.95 ≤ NFI ≤ 1.00	.90 ≤ NFI < .95	Acceptable
NNFI(TLI)	.829	.97 ≤ NNFI(TLI) ≤ 1.00	.90 ≤ NNFI(TLI) < .95	Acceptable
RFI	.751	.95 ≤ RFI ≤ 1.00	.90 ≤ RFI < .95	Acceptable
IFI	.839	.95 ≤ IFI ≤ 1.00	.90 ≤ IFI < .95	Acceptable
PNFI	.725	.95 ≤ PNFI ≤ 1.00	.50 ≤ PNFI < .95	Acceptable Fit
PGFI	.662	.95 ≤ PGFI ≤ 1.00	.50 ≤ PGFI < .95	Acceptable Fit

As shown in Table 2, the CFA results indicate that the tested measurement model demonstrates an overall acceptable level of fit. Although the chi-square statistic was significant ($\chi^2 = 3993.229$; $df = 1516$; $p < .05$), this is common in large samples and is not considered sufficient grounds for model rejection on its own (Kline, 2016; Schermelleh-Engel et al., 2003).

The χ^2/df ratio of 2.634 meets the recommended ≤ 3 criterion, indicating excellent model fit (Carmines & McIver, 1981; Kline, 2016). The RMSEA value of 0.064 falls within the acceptable fit range (.05–.08) (Browne & Cudeck, 1993; Hu & Bentler, 1999).

Although GFI and AGFI values were below ideal thresholds, these indices are known to produce lower values in models with many items and complex multidimensional structures and should not be used as sole decision criteria (Sharma et al., 2005; Schermelleh-Engel et al., 2003).

Incremental fit indices (CFI, NFI, NNFI/TLI, RFI, IFI) did not meet excellent fit criteria; however, values above .80 are considered acceptable in scale development and theory-driven models (Bentler, 1990; Marsh et al., 2004). Parsimony fit indices PNFI (0.725) and PGFI (0.662) exceeded the .50 threshold, indicating an appropriate balance between model fit and complexity (Mulaik et al., 1989).

Overall, although the model did not demonstrate perfect fit across all indices, it represents a valid measurement model that adequately reflects the theoretical structure and is suitable for use within the scope of the study.



Reliability analysis of the trauma-informed school scale

Table 3. Reliability Analysis of the Trauma-Informed School Scale (Post-CFA)

Scale Dimensions	N	Cronbach's Alpha	Standardized Alpha	Number of Items
Dimension 1	398	.898	.899	9
Dimension 2		.804	.807	5
Dimension 3		.924	.926	15
Dimension 4		.907	.907	11
Dimension 5		.894	.895	9
Dimension 6		.852	.852	8
Total Scale		.979	.980	57

Table 3 presents the reliability coefficients of the Trauma-Informed School Scale and its subdimensions following CFA. Cronbach's alpha values for all subdimensions exceeded .80, indicating high internal consistency.

Specifically, Cronbach's alpha coefficients were .898 for Dimension 1, .804 for Dimension 2, .924 for Dimension 3, .907 for Dimension 4, .894 for Dimension 5, and .852 for Dimension 6. All values are well above the commonly accepted .70 threshold, demonstrating reliable measurement across dimensions (Nunnally & Bernstein, 1994).

The overall Cronbach's alpha for the scale was .979 (standardized alpha = .980), indicating very high internal consistency. The close similarity between standardized and unstandardized alpha values suggests balanced item variances and strong measurement consistency. These reliability findings confirm that the Trauma-Informed School Scale is a highly reliable measurement instrument both at the dimensional level and as a whole.

DISCUSSION, CONCLUSION, and RECOMMENDATIONS

The primary aim of this study was to develop a valid and reliable measurement instrument capable of assessing the perceptions of administrators and teachers working in secondary education institutions regarding trauma-informed school practices. The findings indicate that the theoretically grounded six-factor structure of the Trauma-Informed School Scale (TISS) is largely supported through confirmatory factor analysis (CFA) and reliability analyses.

Although the CFA results did not demonstrate perfect model fit across all fit indices, the χ^2/df ratio and RMSEA values were within acceptable limits. Considering that the chi-square statistic is highly sensitive to sample size and is often found to be significant in large samples (Kline, 2016; Schermelleh-Engel et al., 2003), relying solely on this index for model rejection would be inappropriate. Therefore, the evaluation of model fit based on alternative fit indices represents a more appropriate approach. In this respect, the findings are consistent with the literature indicating that theoretically predefined, multidimensional measurement models often yield relatively conservative fit indices in CFA applications (Marsh, Hau, & Wen, 2004; Brown, 2015).

The strong correspondence between the six-factor structure of the scale and the core principles of trauma-informed schools described by SAMHSA (2014), Cole et al. (2013), Bath (2008), and Brunzell, Waters, and Stokes (2016) constitutes an important indicator supporting construct validity. In particular, the strong factor loadings observed in the dimensions related to *understanding the impact of trauma on learning*, *recognizing trauma-related symptoms*, and *creating a safe school climate* suggest that teachers conceptualize trauma not merely as an individual student issue, but as a



phenomenon influencing the school as a whole. This finding aligns with studies emphasizing that the trauma-informed school approach requires a school-wide and systemic transformation rather than isolated interventions (Scott, 2016; McInerney & McKlindon, 2014).

The reliability analyses revealed that all subscales demonstrated Cronbach's alpha coefficients above .80, and that the overall scale exhibited a very high internal consistency coefficient (.979). These results indicate that the instrument has a high level of internal consistency (Nunnally & Bernstein, 1994). However, an alpha coefficient exceeding .95 may also suggest potential conceptual overlap or redundancy among items (DeVellis, 2017). In the present study, the high reliability coefficient can be attributed to the comprehensive and multidimensional nature of the trauma-informed school construct, as well as to the theoretical coherence of the items clustered under a common higher-order framework. Similar findings reporting high internal consistency have been documented in trauma- and school climate-related measurement instruments in the literature (Blitz et al., 2016; Herman et al., 2020).

The deductive scale development approach employed in this study enhanced the conceptual coherence of the instrument by grounding it in a robust theoretical framework. The clear articulation of trauma-informed school principles prior to item development enabled precise alignment between items and their respective dimensions (DeVellis & Thorpe, 2021). Moreover, incorporating crisis management practices specific to the Turkish educational context and obtaining expert feedback from Guidance and Research Center (RAM) professionals strengthened the cultural and contextual validity of the scale (Tay & Jebb, 2017).

Finally, the finding that teachers' and administrators' perceptions of trauma-informed school practices were generally at a moderate to high level suggests that awareness of the trauma-informed school approach is gradually increasing within the Turkish context. Nevertheless, the literature consistently emphasizes that transforming awareness into effective practice requires systematic teacher training, supportive school policies, and strong institutional support mechanisms (Eklund et al., 2018; Herman et al., 2020).

The Trauma-Informed School Scale developed within the scope of this study can be considered a valid and reliable measurement instrument designed to assess the perceptions of administrators and teachers working in secondary education institutions regarding trauma-informed school practices. The findings obtained from the confirmatory factor analysis and reliability analyses indicate that the six-factor theoretical structure of the scale is largely validated and that its measurement power is high.

The trauma-informed school approach offers a holistic perspective that aims not only to support students who have experienced trauma but also to create a safe, inclusive, and supportive school climate for all students (SAMHSA, 2014; Cole et al., 2013). In this context, the developed scale has the potential to determine schools' current levels of trauma sensitivity, identify strengths and areas in need of improvement, and provide data-driven contributions to policy development processes.

Based on the findings of the study, the following recommendations are offered:

1. In terms of practice, the Trauma-Informed School Scale may be used by school administrators, guidance and counseling services, and provincial/district directorates of national education as a tool for evaluating school climate.
2. In terms of policy development, data obtained from the scale may guide the design and content of in-service teacher training programs.
3. In terms of research, it is recommended that the scale be administered across different provinces, school types, and educational levels to re-examine its construct validity.
4. In terms of further development, considering the high internal consistency values, future studies may focus on developing a shorter version (short form) of the scale.



At this stage, the present study makes a significant contribution to the limited body of quantitative research on the trauma-informed school approach in Türkiye. The Trauma-Informed School Scale, developed based on teachers' perceptions, emerges as a robust instrument that can be effectively utilized in both academic research and educational practice. Given the impact of trauma on students' academic and psychosocial development, the dissemination of trauma-informed school practices and the development of scientific tools capable of measuring this approach have become an increasingly critical necessity for education systems.

Ethics and Conflict of Interest

All the rules in the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed in this study. None of the actions specified in the second section of the relevant directive titled "Actions Contrary to Scientific Research and Publication Ethics" were taken. The authors declare that they acted in accordance with ethical rules in all processes of the research. The authors declare that they have no conflict of interest.

Author Contribution

All authors contributed equally to the research.

Data availability

The data that support the findings of this study are available on request from the corresponding author.

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PTSD AND THE RESILIENCE TRIAD: LEVERAGING POST-TRAUMATIC GROWTH, MINDFULNESS, AND SOCIAL-SUPPORT FOR RECOVERY AND TRANSFORMATION

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Received: July 9, 2025

Accepted: October 26, 2025

Published: December 31, 2025

Suggested Citation:

Molokwu, A. N., & Akinmosin, K. A. (2025). PTSD and the resilience triad: Leveraging post-traumatic growth, mindfulness, and social-support for recovery and transformation. *Turkish International Journal of Special Education and Guidance & Counseling (TIJSEG)*, 14(2), 258-266.



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Abstract

More than half of the general population experience one traumatic event or the other in their lifetime, with the most common being tragic accidents and life-threatening injuries, unexpected death of a loved one, witnessing someone seriously injured or killed and or being the victim of a crime. This position paper discusses the resilience triad which comprise post-traumatic growth, mindfulness and social support as a vital framework for promoting recovery and transformation in individuals with Post-Traumatic Stress Disorder (PTSD). By acknowledging their interconnectedness as a component that can adopt a holistic approach to PTSD recovery, leading to improved outcome and enhanced well-being. It explores the significance of each component, their intersections, and the implications for treatment approaches. By emphasizing resilience and growth, we can move beyond mere symptom reduction and support individuals in reclaiming their lives and rediscovering purpose and meaning.

Keywords: Post-traumatic growth (PTG), mindfulness, social-support, recovery, transformation.

INTRODUCTION

Misfortune is a part of the happenstance of human experience, it is indeed in the course of the moments of challenge that we as human, discover our greatest opportunities for growth and transformation. Post-Traumatic Stress Disorder (PTSD) is a devastating situation that upsets individuals who have experienced trauma. While traditional treatment approaches often focus on symptom reduction, it is essential to consider the role of resilience in promoting recovery and transformation. The Resilience Triad, consisting of post-traumatic growth, mindfulness, and social support (Alvarado-García, Soto-Vásquez, Infantes, Guzman et al., 2025), offers a comprehensive framework for achieving these outcomes (Dinmohammadi, Dadashi, Ahmadnia, Janani, Kharaghani, 2021). Post-traumatic growth, social support and training are factors that safeguard against the improvement of PTSD (Morganstein, Wynn & West, 2021). By promoting resilience, individuals can convert their trauma into a prospect for growth, regeneration, and post-traumatic growth, these are vital framework for fostering resilience and supporting significant recovery and transformation for individuals with PTSD. This paper explores the impact of the resilience triad on recovery from PTSD with a focus on leveraging post-traumatic growth, mindfulness, and social support to facilitate transformation and improve mental health.



The social support theory proposes that social connections and relationships is vital to our well-being, generally in challenging times. Social support include informational, emotional, and instrumental support (Shang et al., 2020). More than half of the general populace experience at least a traumatic event in their lifetime, commonly accidents and injuries, unexpected death of a loved one, witnessing somebody extremely hurt, killed and or being the actual victim of a violent crime (Morganstein, Wynn, & West, 2021). Recovery and transformation are the ultimate aims for individuals struggling with Post-Traumatic Stress Disorder (PTSD).

Literature Review

Adversity or misfortune is a part of human existence. These evolve into moments of challenge and discovery of our greatest opportunities for growth and transformation. Post-Traumatic Stress Disorder (PTSD) affects individuals who have experienced trauma, this have emotional impact and can be debilitating and traumatic. As much as this situation is debilitating and shattering, it is possible to emerge from the experience with a renewed strength and purpose. The Resilience Triad is a crucial component of PTSD recovery, and its integration into treatment approaches can lead to improved outcomes and enhanced well-being for individuals affected by trauma. Interventions to inhibit PTSD (Greene, Sznitman, Ateka, Prakash, Fried, and Gelkopf, 2022) in trauma-exposed persons are aimed at interfering with over association of the panic (Alvarado-García, Soto-Vásquez, Infantes, Guzman et al., 2025) and its associated memory while accelerating the gradual but total extinction of the memory. This interventions may be pharmacologic or behavioral and may be administered to all exposed persons who demonstrate high levels of acute distress.

The concept of resilience (resilience though, not alone in potency) was developed as a dynamic component in navigating adversity, permitting individuals to participate and acclimatize to challenging experiences. This triad has been shown to foster a deeper sense of purpose, meaning, and fulfillment in the face of adversity (Bonilla-Escobar, Fandiño-Losada, Martínez-Buitrago, et al., 2018). By leveraging the resilience triad, individuals can transform their lives and emerge stronger, wiser, and more compassionate.

Literature Review

Resilience, post-traumatic growth, mindfulness, and social support are interconnected concepts that have been extensively explored in the literature. Harnessing these three elements, can support an individual to shift beyond just survival and shift towards cultivating recovery and healing. The convergence of these resilience triad therefore, creates a dynamic synergy, which, when combined, forms a potent recipe for unlocking human potential, fostering post-traumatic growth, and cultivating a deeper sense of purpose, meaning, and fulfillment. Resilience denotes the ability to bounce back from adversity, trauma, or stress. It is a vital component in navigating difficult experiences and has been linked to positive outcomes such as improved mental health and well-being (Yim, Lorenz, & Salkovskis, 2024). The whole essence of human existence is not about avoiding difficulties in life (which is definitely inevitable) but about confronting and overcoming them. Individuals who demonstrate resilience often possess skills such as adaptability, optimism, and social support networks.

Social support is a key protective factor in the psychological adjustment of individuals to traumatic events (Mitchell et al., 2022). It has been identified as a critical factor in resilience and PTG with an intricate supportive relationships that make available emotional, practical, and informational support. The trauma survivors experiences positive transformation following trauma (Goenjian, Steinberg, & Pynoos, 2022) and growth. This growth is referred to as Post-traumatic growth (PTG). This highlights the likelihood of individuals to experience PTG. In essence, PTG involves giving meaning, finding purpose, and achieving personal growth after adversity. Research has shown that PTG is associated with improved mental health outcomes, including reduced symptoms of PTSD and depression (Morganstein, Wynn, & West, 2021). By adopting PTG, individuals can go beyond survival and flourish when faced with adversity. Individuals who experienced PTG reported higher



levels of life satisfaction and psychological well-being compared to those who did not. While trauma and stress can have debilitating effects, the human essence can harness the power of interventions (Alvarado-García, Soto-Vásquez, Infantes, Guzman et al., 2025) to foster resilience and growth and as such, social support which is another significant factor that can bolster resilience.

These support system can help trauma survivors deal with, recuperate, and sustain psychological well-being. These can come from family, friends, and professionals. Poor social support is reported to be significantly associated with higher levels of psychiatric symptoms following circumstances like miscarriage. Research established that the quality and the quantity of social support received matter a lot when expecting PTG. Shang et al., (2020) stated that high quality, and high quantity of social support guarantees high levels of PTG while low quality and low quantity of extended social support result to low levels of PTG. Specific types of social support that an individual may experience include emotional support (listening support, comfort, and security), informational support (advice and guidance), esteem support (increasing the person's sense of competence), and tangible support (concrete assistance such as providing transportation allowance when needed or simply making available financial assistance).

Posttraumatic growth (PTG) refers to the positive changes in psychological aspects experienced by individuals in the process of struggling with negative life events and situations that are traumatic, not caused by the traumatic event itself, but through the individual's struggle with the traumatic event (Shang, Kaniasty, Cowlshaw, Wade, Ma, & Forbes, 2020). Overall, the literature suggests that the resilience triad (resilience, PTG, and mindfulness) can be leveraged to foster transformation and growth in the face of adversity. By cultivating resilience, PTG, and mindfulness, individuals can develop a deeper sense of purpose, meaning, and fulfillment in life. Post-traumatic growth (PTG) is a concept that highlights the potential for individuals to experience positive transformation following trauma (Shang, et al., 2020).

The practice of mindfulness practices have been shown to increase cognitive functioning and an antidote that improves ability to cultivate self-awareness and emotional intelligence, including attention and memory (Alvarado-García, Soto-Vásquez, Infantes, Guzman et al., 2025), and promote emotional regulation. Post-Traumatic Stress Disorder (PTSD) is an incapacitating mental health condition that is characterized by symptoms such as flashbacks, nightmares, and avoidance behaviors. It can significantly impact the quality of life of an individual. One of the principal benefits of mindfulness for PTSD is that it has the capacity to reduce symptoms (González-Martín, Aibar-Almazán, Rivas-Campo, et al., 2023). Studies have steadily revealed that mindfulness practices, such as meditation and reflection can decrease the incidence and intensity of PTSD indicators.

Mindfulness also assist PTSD survivors to handle stress and anxiety which are common triggers for symptoms. By training individuals to focus on the present moment and letting go of troubling worries of the past or future,. Mindfulness can reduce feelings of being overwhelmed and increase feelings of tranquility. Furthermore to reduce symptoms, mindfulness improves emotional regulation, it is noteworthy to state that emotional dysregulation is a trademark symptom of PTSD, increase of self-awareness and self-acceptance. Mindfulness aids trauma recovery through processing and integrating traumatic memories. This according to Alvarado-García, Soto-Vásquez, Infantes, Guzman et al., 2025 can reduce the distressing effects of traumatic memories and promote a sense of closure and healing. More than a few mindfulness techniques are mainly operative for PTSD, as well as mindful breathing, body scan, and loving-kindness meditation. Mindful breathing has to do with focusing on the breathing to calm the mind and body, while body scan introduces awareness to physical sensations to the body to decrease pressure and agony. Loving-kindness meditation nurtures self-compassion and kindness thereby, plummeting self-criticism and shame.

Several safety measures and considerations to consider are firstly, therapists should be trauma-sensitive and adjust their technique to meet the individual's needs. Secondly, introduce gradual and gentle approach. Lastly, it should be introduced in conjunction with other evidence-based therapies,



like cognitive-behavioral therapy (CBT) and eye movement desensitization and reprocessing (EMDR). In inference, mindfulness is extremely operational complementary therapy for PTSD. Zhang, (2024) on intervention for trauma and induced emotional disorders stated that it reduces symptoms, enhances emotional regulation, and supports trauma recovery.

Suffice that, mindfulness is a highly effective complementary therapy for PTSD. Its benefits include reducing symptoms, enhancing emotional regulation, and supporting trauma recovery (Zhang, 2024). While there are several precautions and considerations to keep in mind, mindfulness can be a powerful tool in the treatment of PTSD. As research continues to emerge on the benefits of mindfulness for PTSD, it is likely that mindfulness will become an increasingly important component of PTSD treatment. In conclusion, the power of resilience, post-traumatic growth, and mindfulness-based interventions offers a beacon of hope for individuals navigating adversity. By fostering resilience, cultivating PTG individuals can transform and emerge resilient, more astute, and compassionate.

Post-traumatic stress disorder (PTSD)

PTSD, is a mental health condition that's caused when there is a temporal difficulty in adjusting and coping due to a distressing event (Ennis, Shorer, Shoval-Zuckerman, Freedman, et al., 2020). The individual may associate traumatic event with the terrifying imaginations of internal world when the survival of the self must have been threatened. An army officer who for instance, lost his close colleague during a war, may sustain both physical and emotional injuries. He may become traumatised and may attempt suicide (Lewis, Roberts, Andrew, Starling, & Bisson, 2020). Another example is a victim of accident, which maybe any form of vehicular mishap. The sound or smell of tar, blood and honking may trigger his memory and subsequently, subject th individual to a spasm of fear and trembling. As the mind lack the capacity to sort out incoming signals, so that, if the feared sound, sight and smell, is re-experienced, the mind responds with an immediate flood of anxiety (Morganstein, Wynn, & West, 2021). There is the emotionally link to the sound of a knock-out or blast to the gun cognitively as coming from an old rickety vehicle passing by or caused by children fooling around, the individual experiences what is known as flashbacks. The soldier or the accident victim will require counselling procedures and reprogramming strategies during therapeutic sessions. Another important aspect to understand is the occurrence of the compulsion to repeat the event, either in a directly recognisable form, or symbolically. This repetition is, at the very least, a sign that something is stuck, a fixation point and has not been worked through, not digested by the mind. In this case, the individual has somatised the emotional pain into severe physical pain, and numbness on one side of the body.

Fixation theory, also known as the "fixation hypothesis," is a psychological concept that attempts to explain the underlying mechanisms of post-traumatic stress disorder (PTSD). According to Sigmund Freud, fixation theory, is applicable when an individual experiences a traumatic event and their normal coping mechanisms subsequently become overwhelmed. At this point, they become fixated on the traumatic memory. This fixation hinders the processing and integrating of the traumatic experience into their own narrative, thereby causing development of PTSD symptoms. The traumatic memory becomes frozen or stuck in time, and the victim or survivor as the case may be, relives the traumatic occurrence through disturbing memories, flashbacks, hallucinations and nightmares. The fixation can also bring about avoidance behaviors. As the person avoids triggers that remind them of the traumatic event. Fixation theory has implications for the treatment of PTSD, suggesting that therapies that help individuals process and integrate traumatic memories, such as cognitive-behavioral therapy (CBT) and eye movement desensitization and reprocessing (EMDR), may be effective in reducing PTSD symptoms. Griffin, Purcell, Burkman, et al., (2019) on moral injury, submit that the victim may tend to experience survivor guilt (such as I should have died to save my pal). This will lead to hyper-reactive reaction to stimuli with recurrent nightmares of terrible events that interfere with their sleep. They may compulsively relive the traumatic experience daily in flashbacks,



experience recurrent nightmares, entertain negative thoughts about self thereby pushing the victim into suicide tendencies.

Technology is beginning to enhance our understanding of genetic factors and biomarkers to more effectively target interventions. Although psychotherapy and pharmacotherapy options exist, they have limitations in their efficacy and tolerability, creating a strong need for newer and novel therapeutic interventions. Counsellors play significant role as the major response agents in the treatment of PTSD (Dinmohammadi, Dadashi, Ahmadnia, Janani & Kharaghani, 2021). Not all PTSD patients respond adequately to preliminary treatment, some show treatment-resistance in diverse degrees. Individual treatment differ from patient-to-patient, therefore, counsellors attempt to select appropriate psychological therapies (Lewis, Roberts, Andrew et al., (2020) or treatment for recovery from trauma.

The following are few examples of symptoms of PTSD:

- **Difficulty Concentrating:** the victim struggles to readjust at work, home and school. The constant state of anxiety will take away the ability to concentrate
- **Memory Loss:** Memory loss happens as a natural defence mechanism.
- **Avoidance of the Reminders of the Event:** The victim would probably avoid everything and everywhere that can jolt the memory. If it occurred for instance in a swimming training session, he would avoid swimming.
- **Nightmares:** The soldier who survived the war will regularly deal with nightmares and vivid, disturbing dreams.
- **Reduced Interest in Favourite Activities:** The mood changes make it difficult to enjoy once-loved activities, as they feel unmotivated and uninterested in work and hobbies.
- **Self-Isolation and Feeling Distant:** People with PTSD may have a hard time being around people for a few different reasons. These include potential triggers, as well as an inability to relate to friends.
- **Anger and Irritability:** The brain goes to fight or flight state, at the least opportunity, strong emotions like anger, general irritability manifests without provocation. This said to be a state of hyper-arousal.
- **Hyper-vigilance:** a state of increased alertness, always ready for any other threats. This draining and distressing alert state is considered the most upsetting of all the symptoms of PTSD (Goenjian, Steinberg, & Pynoos 2022).
- **Intrusive Thoughts:** while going about daily activity, the victim may suddenly be faced with unwanted, upsetting memories.
- **Difficulty Feeling Positive Emotions:** anger, sadness and guilt are the emotions primarily associated with PTSD dampens ability to regulate positive emotions.
- **Insomnia:** It is difficult to let their guard down especially, for the hyper-vigilant trauma sufferers. Additionally, the nightmares they may face at bedtime can make sleep an unattractive proposition.
- **Vivid Flashbacks:** flashbacks may feel intense as though the traumatic event is happening all over again in the present thereby causing panic and sudden, aggressive response. They may be triggered by something as subtle as someone's cologne or a certain tone of voice.
- **Avoiding People, Places and Things Related to the Event:** Many trauma sufferers become withdrawn, they avoid people, places and things connected to the event. Self-blame is not uncommon, they also blame others associated with the event.
- **Risky Behaviours:** Risky behaviours like drug abuse, alcoholism, unsafe sex, high-adrenaline activities and behavioural addictions like gambling and shopping.



- **Exaggerated Startle Response:** A key aspect of hyper-vigilance is an exaggerated startle response, the constant feeling of being on guard as a small noise may cause the soldier to become jumpy.

Counseling Implications for Counselling Therapists PTSD Survivors: Establishing Trust and Safety

1. Create a safe environment so that the survivor feels comfortable and secure in the counseling setting.
2. Establish trust and build rapport with the survivor while maintaining confidentiality to foster trust.

Assessment and Diagnosis

1. Comprehensive assessment needs to be conducted thoroughly for assessment that will help in the identification of PTSD symptoms, trauma history, and other mental health issues.
2. Accurate diagnosis that ensures correct diagnosis of PTSD, are made while ruling out conditions that may imitate PTSD symptoms.

Counseling Approaches

1. Trauma-focused cognitive-behavioral therapy (TF-CBT) is an evidence-based approach that support survivors to process traumatic memories and rearrange negative judgments.
2. Eye movement desensitization and reprocessing (EMDR): A therapy that helps survivors reprocess traumatic memories and reduce symptoms.
3. Dialectical behavior therapy (DBT) is the approach that assist survivors to manage their emotions, endure distress, and develop relationships.

Key Counseling Strategies

1. Grounding techniques is an approach to assist survivors in the management of dissociation and flashbacks by training them in the existing moment.
2. Emotional regulation allows survivors to develop skills that can help them to manage emotions, decrease anxiety, and increase positive mood.
3. Cognitive restructuring Help them to challenge and reorganize negative beliefs and thoughts that are associated to the trauma.
4. Self-care and relaxation techniques is a means of helping survivors to engage in activities, like exercise, meditation, or yoga, to lessen stress and increase general well-being.

Exceptional Considerations

1. The counselling specialist must consider cultural sensitivity of the situation vis- a- vis the cultural background of the survivor and adjust counseling techniques consequently.
2. Complex trauma prepared to address complex trauma issues, such as multiple traumas, abuse, or neglect.
3. Co-occurring conditions address co-occurring mental health conditions, such as depression, anxiety, or substance abuse.
4. Family and social support from the family members or social support networks in the counseling process that are situation appropriate should be applied.

Ongoing Support and Follow-Up

1. Schedule regular counseling sessions to observe the progress of the survivor and offer on-going support.
2. Schedule follow-up appointments to ensure the survivor is continuing to progress and address any concerns.



3. Make available referrals to supplementary resources, such as support groups or community services, as desired.

Multiple treatment that counsellors can use abound, few of these includes the following.

Cognitive Behavioural Therapy (CBT)

Cognitive behavioural therapy is one of the most effective types of counselling for PTSD. It is concerned with the way our beliefs shape our interpretation of events or experiences (Wild, Warnock-Parkes, Murray, Kerr, Thew, Grey, et al., (2020). In cognitive-behavioural therapy, a counsellor helps individuals to understand and change how they think about their trauma and its aftermath. The end goal is to help patients understand how their thoughts about trauma make symptoms of PTSD worse, and help them to identify toxic thoughts and feelings about the situation. Cognitive-behavioural therapy also helps individuals cope with feelings such as anger, guilt, and fear.

Cognitive Processing Therapy

The vast majority of treatments that have been through Randomized Controlled Trials (RCT). These are in the general group of psychosocial therapies called cognitive behavioural therapy. They include exposure therapies, stress inoculation training or anxiety-management programs, and cognitive therapies. Many treatment programs combine components of each of those general treatment groups. The CBT has become an overarching concept that includes variants of exposure therapy, stress inoculation training, cognitive therapies, and their combinations (Zaccari, Higgins, Haywood, Patel et al., 2023). The American Psychological Association, states that Cognitive Processing Therapy focuses on the faulty belief systems (symptoms) and thinking processes that drive posttraumatic stress disorder symptoms. Thereby breaking the emotional hold/influence that the event has over the daily life experiences of the soldier.

Trauma-Focused Cognitive-Behavioural Therapy

This Therapy takes a confrontational approach to neutralising the effects of a past trauma. This technique slowly but surely exposes the individual to anything that reminds him or her of the trauma. Various research findings indicate that trauma-focused psychological treatments for PTSD are effective (Lewis, Roberts, Andrew, Starling, & Bisson, 2020). This includes feelings, thoughts and situations. In the course of treatment, the victim learns to substitute thoughts and emotions related with PTSD symptoms with a more stable perception on the point where past trauma presently rests in their life. Memory plays an important role in the cognitive coping of the persons with PTSD.

Conclusions

Frightful events like the death of family member or a colleague as the case may be, is an intrusion into the reality of the world of a person who has been to war or experienced the loss of a loved one or a part of the body. People of all ages can experience post-traumatic stress disorder nevertheless with effective treatment, over time there could be improved function. Fortunately, there is a wide range of treatment interventions. However, any treatment approach, should best go with the type of interventions that best address the specific needs, especially anxiety. The conclusion of this study help people ensure healthy lifestyles, promote the well-being of people of all ages, and contribute to the global goals of the 2030 Agenda for Sustainable Development

Suggestions

The counselling procedure is proposed as a positive exercise, to facilitate communication, and to support the victim to handle issues connected to performance. It provides an opportunity to discuss, and resolve, problems or concerns relating to performance. Counselling therapists should suggest ways for clients to deal with situations in a way that promotes self- efficacy and emotional intelligence since the therapist's role is to guide clients in an accepting way, helping them to see the beauty within themselves.



Ethics and Conflict of Interest

The authors of the study acted in accordance with ethical rules in all processes of the research. There are no individuals or financial relationships that could be perceived as potential conflicts of interest related to this study. Authors declare that they acted in accordance with ethical rules in all processes of the research, and there is no conflict of interest between the authors of this work.

Author Contribution

All authors contributed equally to the research.

Data availability

The data that support the findings of this study are available on request from the corresponding author.

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THE RELATION BETWEEN TEACHERS' DIGITAL LITERACY LEVELS AND THEIR SUBJECTIVE WELL-BEING

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Received: June 18, 2025

Accepted: October 13, 2025

Published: December 31, 2025

Suggested Citation:

Güngör, Ş., & Nejat İra, N. (2025). The relation between teachers' digital literacy levels and their subjective well-being. *Turkish International Journal of Special Education and Guidance & Counseling (TIJSEG)*, 14(2), 267-277.



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Abstract

Digital literacy is a fundamental skill, and its significance for teachers increased with the transition to distance education. This competence enables the effective and responsible use of digital technologies, which is expected to positively influence teachers' subjective well-being. Subjective well-being refers to an individual's positive emotions and cognitions about their own life. This study aimed to investigate the relationship between the digital literacy levels and subjective well-being of teachers working in Muş Province, Türkiye. A quantitative relational survey model was used. The sample consisted of 220 teachers from public high schools. Data were collected using the Digital Literacy Assessment Scale and the Subjective Well-Being Scale. The results showed a statistically significant, weak, and positive correlation between the overall Digital Literacy Scale and the Subjective Well-being Scale. Digital literacy levels were found to significantly predict subjective well-being. Further analysis revealed no significant correlation with the School Commitment dimension. However, a positive and significant correlation was observed between all digital literacy dimensions and the Teaching Competence dimension. This indicates that high digital literacy levels enhance teaching competence, leading to increased professional satisfaction and subjective well-being. Educational institutions should support the development of teachers' digital literacy to foster their well-being.

Keywords: Digital literacy, subjective well-being, digitalization, digital literacy in education, subjective well-being in education.

INTRODUCTION

Digital literacy is a fundamental skill that individuals and societies need in today's world, and digitally literate individuals are able to use digital technologies effectively and responsibly. This competence enables the more efficient execution of activities such as learning, production, and communication. Information and communication technologies and the internet have given rise to new literacy skills, which are a set of skills, strategies, and abilities that enable us to adapt to changing world conditions and technological developments, and which we need in every area of our professional and personal lives (Leu et al., 2004). Digital literacy refers to the ability to use digital technologies effectively and responsibly. This encompasses the skills of conducting research online, evaluating information, creating digital content, and navigating digital environments safely (Özërbaş et al., 2018). Lankshear and Knobel (2006) have defined digital literacy as the ability to acquire, produce, and share information across diverse digital environments. Recent frameworks extend digital literacy beyond technical skills to include critical, ethical, and creative dimensions required in an AI-mediated world (Polizzi, 2020). The rapid integration of generative AI tools into education has made AI literacy an indispensable part of teachers' digital literacy, with early evidence suggesting that teachers who feel competent using AI report higher professional self-efficacy and well-being (Shi, 2025; Picton & Clark, 2024; Collie et al., 2024).



Subjective well-being, on the other hand, refers to the state in which individuals hold positive emotions and cognitions about their own lives, positively influencing life satisfaction, happiness, and mental health. According to Diener (1994), subjective well-being is the individual's evaluation of the extent to which they experience positive and negative emotions in their life. A high level of subjective well-being reflects the predominance of positive emotions and thoughts regarding one's own life.

According to Eshet-Alkalai's (2002) theoretical framework, digital literacy consists of three main components: technical-procedural, cognitive, and emotional-social skills. Contemporary models emphasize data literacy, AI literacy, and human-machine collaboration as new core components of teachers' digital competence in the age of generative artificial intelligence (Casal-Otero et al., 2023; Lee et al., 2024). Subjective well-being, on the other hand, can be explained through social constructivism and social comparison theories. It has been stated that digital literacy makes a positive contribution to individuals' subjective well-being by increasing access to information and opportunities and by strengthening social connections.

The effective use of digital resources can provide individuals with a sense of satisfaction and contribute to their subjective well-being. Digital literate individuals, who have access to a wealth of information and opportunities, may feel better and more empowered. A study conducted by Nie et al. (2021) among 493 households in rural China found a very strong relationship between mobile phone use and subjective well-being. More recent large-scale studies confirm that higher digital skills are associated with greater life satisfaction and lower loneliness, even after controlling for socioeconomic variables (Wickramasinghe and Jayatilleke, 2021; EU Commission, 2022). Similarly, another study conducted in rural China concluded that young and middle-aged internet users are happier than older people, emphasizing that older people should also be empowered in this regard with the inclusion of the internet in rural areas (Zhou et al., 2023). In this context, most studies have revealed that access to information and opportunities has a positive impact on individuals' subjective well-being.

According to the results of a survey conducted in 2019 on more than 300 teachers from four different countries (Cyprus, Greece, Slovakia, and Spain) to investigate teachers' confidence in their digital literacy and measure their educational needs in terms of developing their digital competence, teachers' confidence levels varied significantly from country to country, and the need for teachers to be trained in digital literacy was quite high (Perifanou et al., 2019). Various countries are even involving their technology ministries to develop this skill (Rahman et al., 2021). According to a study conducted on 643 Swiss internet users aged 60 and over, it was found that as their internet skills improved, their life satisfaction increased (Hofer et al., 2019).

Teachers' well-being is critical to their students' success. According to the study titled "Happy Teacher, Happy Classroom" published in the Social Psychology of Education journal, a positive relationship has been found between teachers' subjective well-being and their students' physical and mental health. The study revealed that teachers' self-efficacy positively affects students' mental health, and that perceived teacher support positively affects both students' subjective physical and mental health (Pap et al., 2023).

The closure of schools and the transition to distance education during the pandemic period have further increased the importance of digital literacy. Post-COVID research shows that teachers with higher digital competence experienced significantly lower burnout and higher job satisfaction during and after the shift to emergency remote teaching (Jogezai et al., 2023; Rastegar & Rahimi, 2023).

High levels of digital literacy among teachers can positively affect both their professional performance and subjective well-being. The purpose of this study is to reveal the relationship between teachers' digital literacy levels and their subjective well-being.



This study sought to answer the research question:

1. What kind of relationship exists between teachers' digital literacy levels and their subjective well-being levels?
2. Is there a significant relationship between teachers' digital literacy levels and their subjective well-being levels?
3. Do teachers' digital literacy levels predict their subjective well-being levels?

The absence of a comprehensive study in the literature examining the effect of teachers' digital literacy levels on their subjective well-being demonstrates the importance of this research and its potential contribution to the field.

METHOD

This study employed a relational survey model; a quantitative research design aimed at determining the existence and degree of covariance between teachers' digital literacy levels and subjective well-being. The relational scanning model provides information about which variables change together and how they change in the process of solving a multivariate problem (Karasar, 2011). Surveys were conducted using online forms with permission from the Provincial Directorate of National Education. Teachers were asked to fill out the surveys on a voluntary basis in line with the purpose of the research.

Population and Sample

The population consisted of 526 teachers working in 22 public high schools located in the city centre of Muş Province, Türkiye, during the 2022–2023 academic year. The sample comprised 220 teachers selected through convenience sampling.

Table 1. Distribution of participating teachers according to gender variable

Gender	n	%
Female	108	49,1
Male	112	50,9
Total	220	100,0

Of the participants, 108 are women and 112 are men. Male participants make up 49.1% of the participants, while female participants make up 50.9%.

Table 2. Age distribution of participating teachers

Age	n	%
20-29	70	31,8
30-39	86	39,1
40-49	41	18,6
50+	23	10,5
Total	220	100,0

When participants were grouped into 10-year age brackets, there were 70 teachers in the 20-29 age group, 86 teachers in the 30-39 age group, 41 teachers in the 40-49 age group, and 23 teachers aged 50 and over, for a total of 220 teachers. Participants aged 20-29 make up 31.8% of the total, those aged 30-39 make up 39.1%, those aged 40-49 make up 18.6%, and those aged 50 and above make up 10.5%.

Table 3. Distribution of participating teachers according to marital status variable

Marital Status	n	%
Bachelor	108	49,1
Married	112	50,9
Total	220	100,0



When we grouped participants according to their marital status, 108 teachers were bachelor, representing 49.1% of the participants. There were 112 married participants, constituting 50.9% of the total participants.

Table 4. Distribution of participating teachers according to educational status variable

Educational Status	n	%
Associate Degree	8	3,6
Bachelor's Degree	152	69,1
Master's Degree	56	25,5
Ph.D.	4	1,8
Total	220	100,0

When participants are classified according to their educational background, it is seen that only 8 out of 220 participants are associate degree graduates. Associate degree graduate teachers constitute 3.6% of the total participants. The reason for this low percentage is that in order to become a teacher, one must be a graduate of a faculty of education or a four-year program and receive teacher training. Therefore, only teachers of certain vocational subjects are accepted from associate degree programs. Bachelor's degree holders constitute a large proportion of the teachers participating in the study, at 69.1% (152 people). This is followed by master's degree holders at 25.5% (56 people). Only 4 teachers have a doctorate, constituting just 1.8% of the total participants.

Table 5. Distribution of participating teachers according to field variable

Field	n	%
Vocational/Occupational Group	20	9,1
Science Group	28	12,7
Foreign Language Group	32	14,5
Mathematics	28	12,7
Turkish Language and Literature	24	10,9
Physical Education (Sports)	16	7,3
Music	4	1,8
History Group	8	3,6
Religious Culture and Ethics	8	3,6
Philosophy Group	4	1,8
Others	28	12,7
Primary School Teacher	20	9,1
Total	220	100,0

When participation is evaluated by field, we see that foreign language teachers had the highest participation rate at 14.5%. When looking at the rates in order, science and mathematics teachers came second with 12.7% (28 people). Twenty-four people from the Turkish language and literature field participated in the study, accounting for 10.9% of the total participation. A total of 20 people (9.1%) from the vocational group teachers participated in the study. The number of classroom teachers participating in the study is equal to that of vocational group teachers. Sixteen teachers (7.3%) from the physical education and sports field participated. Eight teachers each participated from the history and religious culture and ethics fields, while only four teachers each participated from the philosophy and music fields. Twenty-eight teachers who did not belong to these categories were also included in the “other” classification, accounting for 12.7% of the total participation.

Data Collection Tools

A three-part questionnaire was administered to collect data for the study. First, a personal information form was used to determine participants' individual characteristics. The “Digital Literacy Assessment Scale” was used to collect data on digital literacy levels. This scale was developed by Acar in 2015. The subjective well-being scale developed by Renshaw, Long, and Cook in 2015 was used as the subjective well-being scale. This scale was adapted into Turkish by Ergün-Nartgün.



Digital literacy assessment scale

The “Digital Literacy Assessment Scale,” prepared in a 5-point Likert format, consists of two sections. This scale comprises 41 items. It includes five different sub-dimensions: awareness, contextual use, digital identity management, safe participation, and basic tool and environment knowledge. The Cronbach's alpha value calculated for reliability measurement is .980 for the entire scale and .960 for this study. Based on these values, the scale is considered reliable.

Table 6. Digital literacy assessment scale levels

Options	Ranges	Levels
Not Competent at All	1,00-1,80	Very Low
Slightly Competent	1,81-2,60	Low
Moderately Competent	2,61-3,40	Moderate
Highly Competent	3,41-4,20	High
Fully Competent	4,21-5,00	Very High

Table 7. Normality test for the digital literacy scale

	Contextual Use	Digital Identity Management	Awareness	Secure Participation	Basic Tool and Medium Knowledge	Total
Skewness	-.693	-.905	-.885	-.938	-.168	-.924
Standard Error of Skewness	.164	.164	.164	.164	.164	.164
Kurtosis	-.154	.341	.528	.912	-.737	.683
Standard Error of Kurtosis	.327	.327	.327	.327	.327	.327

Subjective well-being scale

The scale consists of 8 items on a 4-point Likert scale. The scale has two subscales. These are school commitment (items 1, 3, 5, 7) and teaching competence (items 2, 4, 6, 8). The Cronbach's alpha value determining the reliability of the scale is .820. For this study, this value was found to be .652. This indicates that the scale is reliable.

Table 8. Subjective well-being scale levels

Options	Ranges	Levels
Almost Never	1,00-1,75	Very Low
Sometimes	1,76-2,50	Low
Often	2,51-3,25	High
Almost Always	3,26-4,00	Very High

Table 9. Normality test for the subjective well-being scale

	School Commitment	Teaching Competence	Total
Skewness	-.420	-.105	-.297
Standard Error of Skewness	.164	.164	.164
Kurtosis	.029	-.921	.448
Standard Error of Kurtosis	.327	.327	.327

Socio-demographic information form

The form prepared by the researcher includes questions aimed at determining participants' demographic information such as gender, marital status, age and field of study.

The data collection process

The scales used in the study were delivered to the teachers via a link created by the researcher using the Google Forms application during the 2023–2024 academic year. Information regarding the purpose and scope of the research was conveyed to the teachers both through the sent form and



verbally. The scale applications were conducted via online forms after obtaining permission from the Muş Provincial Directorate of National Education.

The data analysis

The data collected in the study were analyzed using the Statistical Package for Social Sciences (SPSS) software. The distribution of the data was considered when selecting the analysis methods. In this context, skewness and kurtosis coefficients were examined. Pearson correlation test and regression analyses were applied in the analysis of the data. The Tukey LSD test was used to determine which groups had significant differences.

The Pearson-moment correlation coefficient was used to demonstrate the relationship between the digital literacy assessment scale and the subjective well-being scale used to obtain the research data. Regression analysis was applied to determine the predictive power of the Digital Literacy scale on subjective well-being. The data obtained are presented in detail in the findings section.

RESULTS

The Findings section presents the results obtained through the analysis of data collected via the "Subjective Well-Being Scale" and the "Digital Literacy Assessment Scale," which were completed by the teachers participating in the study.

Findings Regarding the Relationship Between Teachers' Digital Literacy Levels and Their Subjective Well-Being Levels

The findings address the question: "Is there a significant relationship between teachers' digital literacy levels and their subjective well-being levels?" The relevant findings are presented below.

Table 10. Correlation analysis of the relationship between school engagement and the dimensions of the digital literacy scale

		Awareness	Secure Participation	Contextual Use	Digital Identity Management	Basic Tool And Medium Knowledge
school commitment	pearson correlation	.000	.030	.089	-.053	.090
	P	.999	.658	.190	.434	.183

According to Table 10, the correlation calculations between the school engagement dimension of the subjective well-being scale and the sub-dimensions of the digital literacy scale are presented. Based on the obtained data, no correlation was found in the school engagement dimension, as the P value is greater than .05.

Table 11. Correlation analysis of the relationship between teaching competence and the dimensions of the digital literacy scale

		Awareness	Secure Participation	Contextual Use	Digital Identity Management	Basic Tool And Medium Knowledge
teaching competence	pearson correlation	.272	.412	.303	.305	.368
	P	.000	.000	.000	.000	.000

According to Table 11, the correlation calculations between the teaching competence dimension of the subjective well-being scale and the sub-dimensions of the digital literacy scale are presented. Based on the obtained data, a positive correlation is observed in the teaching competence dimension, as the P value is less than .05. A weak correlation exists between teaching competence and awareness, .272 ($p < .01$); a moderate correlation exists between teaching competence and secure participation, .412 ($p < .01$); a moderate correlation exists between teaching competence and contextual use, .303 ($p < .01$); a moderate correlation exists between teaching competence and digital identity management, .305



($p < .01$); and a moderate correlation exists between teaching competence and basic tool and medium knowledge, .368 ($p < .01$).

Table 12. Correlation analysis of the relationship between teachers' subjective well-being levels and their digital literacy levels

		Digital Literacy Levels
subjective well-being levels	pearson correlation	.217
	p	.001

Considering the whole of the Digital Literacy Scale and Subjective Well-being Scale, according to the results of the correlation analysis, Pearson's correlation was observed to be .217 and the P-value was .001. The correlation is statistically significant, weak, and positive.

The Predictive Power of Teachers' Digital Literacy Levels on Their Subjective Well-being Levels

This section presents the findings regarding the question: Do teachers' digital literacy levels predict their subjective well-being levels?

Table 13. Regression analysis of teachers' digital literacy levels on their subjective well-being

Model	R	R ²	adjusted R ²	std. error of the estimate
1	.217a	.047	.043	.331

According to Table 13, the percentage of variance in the dependent variable explained by the independent variable in the established regression analysis model was found to be 0.043. According to the findings, teachers' digital literacy levels predict their subjective well-being by 4%

Table 14. Findings regarding the dimensions of the digital literacy scale based on the school commitment constant

Variable	B	std. error B	β	t	p	bivariate r
constant	2.896	.314		9.212	.000	
awareness	-.051	.100	-.060	-.511	.610	.000
secure participation	.029	.068	.047	.418	.677	.030
contextual use	.126	.147	.126	.858	.392	.089
digital identity management	-.083	.058	-.154	-1.447	.149	-.053
basic tool and medium knowledge	.052	.079	.076	.660	.510	.090

School Commitment: Predicted Variable
Digital Literacy Scale: Predictor Variable

Based on the p-values in the Table 14, none of the individual dimensions of the Digital Literacy Scale are found to be statistically significant predictors of School Commitment when considered simultaneously in this model. All p-values are well above the conventional significance level of .05.

Table 15. Findings regarding the dimensions of the digital literacy scale based on the school teaching competence constant

Variable	B	std. Error B	β	t	p	bivariate r
constant	2.693	.215		12.556	.000	
awareness	.035	.068	.054	.504	.614	.272
secure participation	.166	.047	.361	3.561	.000	.412
contextual use	-.153	.100	-.202	-1.523	.129	.303
digital identity management	-.014	.039	-.034	-.354	.724	.305
basic tool and medium knowledge	.156	.054	.301	2.899	.004	.368

Teaching Competence: Predicted Variable
Digital Literacy Scale: Predictor Variable



When examining the bivariate correlations between the predictor variables and the predicted variables in the Table 15, a positive and weak significant correlation ($r = .272$) exists between the Awareness dimension of the Digital Literacy Scale and Teaching Competence. A positive and moderate significant correlation ($r = .412$) exists between the Secure Participation dimension of the Digital Literacy Scale and Teaching Competence. A positive and moderate significant correlation ($r = .303$) exists between the Contextual Use dimension of the Digital Literacy Scale and Teaching Competence. A positive and moderate significant correlation ($r = .305$) exists between the Digital Identity Management dimension of the Digital Literacy Scale and Teaching Competence. A positive and moderate significant correlation ($r = .368$) exists between the Basic Tool and Medium Knowledge dimension of the Digital Literacy Scale and Teaching Competence. Through the analyses conducted and the findings obtained, it has been determined that digital literacy significantly and positively predicts teaching competence.

DISCUSSION, CONCLUSION, and RECOMMENDATIONS

In this study, the digital literacy levels and subjective well-beings of teachers working in Muş province of Türkiye were evaluated. Thus, the aim was to determine the relationship between digital literacy levels and subjective well-being. The findings obtained as a result of the study are discussed in this section, addressing the research questions. Suggestions based on these discussions are presented.

A study conducted by Meinel in 2020 addressed the importance of Digital Literacy, noting that it should be considered one of the basic skills, alongside reading, writing, speaking, and arithmetic. It was mentioned that digital literacy will profoundly affect and change the ways we live, think, work, learn, and interact. The article emphasized the need to shape the digital world in a human- and value-centered manner and find new answers to questions regarding how this world should be structured. It was stated that this is a challenge faced by the current generation and will have a defining impact on the lives of subsequent generations (Meinel, 2020). A study conducted by Kleinert in 2022 mentioned that teachers' subjective well-being positively or negatively affects a successful classroom environment. It was noted that teachers with low self-confidence regarding their competencies will also have weak subjective well-being. A study by Liu et al. (2022) focused on how the forced transition of classroom environments to digital platforms during the COVID-19 pandemic affected teachers and students, regardless of the teachers' existing digital literacy and subjective well-being. According to the research findings, teachers' subjective well-being was negatively affected by this situation. When examining the studies in the literature, it is clear that there is a connection between teachers' digital literacy levels and their subjective well-being.

The analysis has revealed that participants' digital literacy levels have a significant effect on their subjective well-being levels. Primarily, the results revealed by the Pearson Correlation test shows that the relationship between them cannot be considered coincidental. Since the findings between the dimensions of the digital literacy scale and the School Commitment dimension of the subjective well-being scale were close to zero, it was concluded that there was no relationship that could be considered significant. On the other hand, when the findings were examined, it was seen that digital literacy levels affected teachers' teaching competencies. When examining the correlation established between the dimensions of the digital literacy scale and teaching competence, it is seen that the sub-dimensions of safe participation, basic tool and environment use, contextual use, and digital identity management have a moderate positive relationship with teaching competence and increase together in a meaningful way. In addition, there is also a weak positive correlation with the awareness sub-dimension.

Digital literacy is an important component of teaching competence. Teachers with a high level of digital literacy can use information and communication technologies to develop their students' creativity and critical thinking skills. This enables them to achieve professional satisfaction and raises their subjective well-being levels. On the other hand, teachers with low levels of digital literacy



cannot use information and communication technologies and are unable to meet their students' needs. This situation has a negative impact on their subjective well-being.

The expectation that subjective well-being would improve as digital literacy increased, which was already present before the study was conducted, has been confirmed by the findings. As mentioned earlier, teachers with high digital literacy may feel more competent and capable. This can help them communicate more effectively in the digital age, access information, and evaluate it. Teachers who can better adapt to the requirements of the current educational environment thanks to this competence can help their students become pioneers in this field and guide them. Teachers who can use digital tools effectively can offer their students interesting and effective learning experiences and thus motivate them.

Through the digital literacy competence that requires critical thinking skills, teachers can effectively manage and evaluate the information they access in digital environments, thereby guiding their students in information literacy. In this context, it is important for teachers to be digitally literate, which is one of the 21st-century skills, but maintaining a sustainable balance in this process is also critical. Educational institutions need to take steps to develop teachers' digital literacy and provide support in this regard. It is important that this process is carried out in a way that enhances teachers' subjective well-being; otherwise, this process may cause difficulties and stress for teachers.

The year 2023 has redefined the concept of digital literacy by introducing artificial intelligence into our lives unexpectedly, marking a new milestone in digitalization. The release of version 3.5 of the GPT technology developed by OpenAI and its availability to the general public through the ChatGPT interface may well be recognized as the beginning of the age of artificial intelligence. Although this technology was initially seen as purely for entertainment purposes, agreements made with Microsoft in the following months transformed the generative artificial intelligence model into a tool that could be used in every area of life, making it easier for individuals in every sector. This newly emerging technology has also brought with it a variety of new questions. For example, concerns about ethics and issues such as the concept of digital ownership, which were embedded in the early days of the internet, have resurfaced as current problems. A paper published by Gillotte in 2019 addressed the concept of digital ownership in works of art produced by artificial intelligence. The existence of published literature on this subject also demonstrates the importance of this technology. This technology will become one of the most important tools for teachers in the future. It will support teachers, particularly in the field of inclusive teaching, positively impacting their teaching competence and enhancing their subjective well-being. Teachers will be able to use this new tool to identify learning difficulties, thereby including students experiencing challenges in the classroom environment. For example, artificial intelligence can analyze a lesson visually for a student with vision problems and then reconstruct and explain it auditorily. Teachers can also use artificial intelligence to measure students' attention levels and performance in class and instantly redesign lectures accordingly.

These examples will enable teachers to leverage their digital literacy levels and enhance their teaching competencies in the future. It is believed that teachers actively engaging in the lesson and their students succeeding will positively predict their subjective well-being.

Ethics and Conflict of Interest

All the rules in the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed in this study. None of the actions specified in the second section of the relevant directive titled "Actions Contrary to Scientific Research and Publication Ethics" were taken. The authors declare that they acted in accordance with ethical rules in all processes of the research. The authors declare that they have no conflict of interest.

Author Contribution

All authors contributed equally to the research.



Data availability

The data that support the findings of this study are available on request from the corresponding author.

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WORKPLACE CHALLENGES AND INCLUSION OF GRADUATE EMPLOYEES WITH HEARING IMPAIRMENT IN OYO STATE, NIGERIA

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Received: September 4, 2025

Accepted: December 26, 2025

Published: December 31, 2025

Suggested Citation:

Bello, F. O., & Adeduyigbe, A. E. (2025). Workplace challenges and inclusion of graduate employees with hearing impairment in Oyo State, Nigeria. *Turkish International Journal of Special Education and Guidance & Counseling (TIJSEG)*, 14(2), 278-287.



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Abstract

Despite increasing efforts to promote workplace inclusivity, employees with hearing impairment continue to face barriers that limit their participation and professional growth. This study investigated the workplace challenges and inclusion of graduate employees with hearing impairment in Oyo State, Nigeria. A survey research design was adopted, and purposive sampling was used to select five workplaces with employees who had hearing loss. A total of 33 respondents participated, reflecting the limited size of this specialised subgroup within the workforce. Data were collected using the Workplace Experience of Employees with Hearing Impairment Questionnaire (WEEHIQ) and analysed using descriptive statistics. Findings showed that employees with hearing impairment encounter significant socio-emotional difficulties due to communication barriers ($X = 2.56$), frequent workplace violence, such as derogatory remarks and discrimination ($X = 2.71$), and incentive deprivation, including unequal access to benefits and promotions ($X = 2.66$). These challenges were also found to affect their productivity and overall work performance ($X = 2.74$). The study concludes that systemic obstacles persist in workplaces, hindering inclusivity and equal opportunities for employees with hearing impairment. It recommends that governments and employers adopt disability-inclusive policies, provide assistive resources, and enforce workplace regulations to reduce discrimination and support equal participation.

Keywords: Inclusion, hearing impairment, graduate employee, workplace challenges.

INTRODUCTION

The sense of hearing is critical for communicating, engaging within an environment, independence and performing activities of daily living (Shaw, 2021). The World Health Organisation (WHO) estimates that over 5% of the world's population experiences disabling hearing loss, which underscores the importance of understanding and addressing the challenges faced by this group (WHO, 2021). Persons with hearing impairment have long struggled to secure and retain competitive employment globally. Hearing impairment has historically been equated with the inability to work or live independently, and persons with hearing impairment were viewed as objects of pity (Ubani et al., 2022). Even with a job, persons with hearing impairment are often underemployed and work in industry or services; they rarely work as managers or professionals (Domagała-Zyśk, 2014). Fresh graduates often encounter a series of obstacles that span various aspects of their work. These challenges include but are not limited to adapting to a new work environment, developing relevant skills, establishing a professional network, and effectively managing work-life balance. Navigating these challenges successfully is pivotal for ensuring a smooth and fulfilling transition into the workforce. Research has shown that persons with hearing impairment generally experience more



unemployment, are often underemployed and have lower incomes than the hearing population (The Papworth Trust, 2018)

Jang et al. (2014) noted that individuals with hearing impairment are often faced with limited opportunities to access the job market and are typically rendered unemployed or accommodated into temporary, low-income jobs. Jansson et al. (2015) suggested that low levels of employment amongst individuals with disability are largely due to unfamiliarity and lack of experience amongst employers. Osborn (2019) reported that approximately 1 out of 15 individuals experience difficulty hearing, and further reported that between 2017-2018, persons with disability were grossly under-represented in the workforce. As per this report, only 1.3% of the working disabled population were employed in top management level positions, and 1.3% were employed at a professionally qualified level. According to a study by Saad, et al., (2023), employers commented that persons with disabilities are unable to work in teams and are unable to produce quality work as compared to people without disabilities.

Theoretical Framework of the Study

Social model of disability

The social model of disability was developed over 50 years ago by people with disability. the model holds that although have impairments, the oppression, exclusion and discrimination people with impairments face is not an unavoidable consequence of having an impairment, but is as a result of the way society is run and organised. Carson (2009) posited that people with impairments are disabled by the fact that they are excluded from participation within the mainstream of society as a result of physical, organisational and attitudinal barriers. These barriers prevent them from gaining equal access to information, education, employment, public transport, housing and social/recreational opportunities. The definition of the social model of disability was first proposed by the Union of the Physically Impaired against Segregation in 1976 and is defined as follows:

Impairment: lacking part or all of a limb, or having a defective limb, organ or mechanism of the body.

Disability: the disadvantage or restriction of activity caused by a contemporary social organisation which takes little or no account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities.

Although the phrase “social model of disability” was coined in 1983 by Mike Oliver, an academic and activist with disability, the idea behind the concept can be traced back to the Independent Living (IL) movement in the 1960s. As a concept, it found expression in the 1970s in the United Kingdom (UK), at a conference where disability was described as: “the disadvantage or restriction of activity caused by contemporary social organisation which takes little or no account of people who have impairments and thus excludes them from participation in the mainstream of social activities. Disability is a particular form of social oppression”.

Importantly, the social – or human rights – model of disability is embedded in the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) and is described in ‘Preamble, e’, which says that:

“Recognising that disability is an evolving concept and that disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others”.

The Social Model posits that the challenges faced by individuals with disabilities, as well as the discrimination they encounter, primarily stem from societal constructs rather than the disabilities themselves (Shakespeare, 2013). For instance, this perspective asserts that an individual with communication disabilities is marginalised due to society's limited capacity to accept and utilise alternative means of communication. Consequently, disability is seen as an outcome of restricted interactions between disabled individuals and the broader population, compounded by society's failure



to accommodate those with impairments. Consequently, the remedy for disability lies in reshaping society (Chitereka, 2010). The Social Model has proven effective in driving change within the disability sector, facilitating the inclusion of disabled individuals into society and the open job market (Watermeyer, 2013). However, as it became the emblem of the disability revolution, the Social Model oversimplified impairment as something that could be rectified merely by creating an inclusive society (Watermeyer, 2013), overlooking the impact of impairment on daily life. Despite its shortcomings, research indicates that this perspective has had a positive influence on employment opportunities for people with disabilities (Goss, et al., 2000).

METHOD

Research design

The research was conducted using a survey research design. The survey research design is the collection of quantifiable data from a population for description on identification verifications that may point to causal relationships. This research design was adopted because it involved the collection of information, then assessing and generalising the information gathered from a fraction of the research population.

Sample and sampling technique

The study employed purposive sampling techniques to select five workplaces in Oyo State, Nigeria. These workplaces were purposively chosen based on the presence of employees with hearing impairment, as they represent the specific population of interest for the study. Within the selected workplaces, the study adopted a total enumeration sampling technique, involving the inclusion of all available and willing employees with hearing loss. This approach ensured comprehensive coverage of the target group within each organisation. A total of 33 respondents participated in the study. Although the number of respondents is relatively small, this is justified by the fact that individuals with hearing impairment constitute a naturally limited and specialised subgroup within the general workforce. Given the hard-to-reach nature of this population, total enumeration was the most appropriate method to ensure inclusiveness, maximise data reliability, and capture the diverse experiences of the entire accessible population.

Research instrument

The research adopted the questionnaire as the instrument for data collection. The instrument is titled: Workplace Experience of Employees with Hearing Impairment Questionnaire (WEEHIQ). The questionnaire was divided into five (5) sections (Section A-E). Section A consist of information on demographics of the respondents, section B consists of questions on the socio-emotional challenges facing employees with hearing impairment in their workplace, section C consist of questions on the type of violence faced by employees with hearing impairment in their workplace, section D consists of questions on the kind of incentive deprivation that employees with hearing impairment face in their workplace, and section E consist of questions on how the challenges encountered by persons with hearing impairment in their workplace affects their productivity. A four-point Likert scale will be used to obtain the response from the respondents in sections B, C, D and E. The scale is measured as follows: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD)

Validity and reliability of the instrument

The research instrument was validated by two experts in the field of special education. Their inputs and corrections were applied to meet the criteria of content validity. The reliability of the research instrument was assessed using internal consistency reliability. The items were analysed using Cronbach's Alpha, and the resulting value indicated high internal consistency, confirming that the questionnaire is reliable for measuring workplace challenges faced by employees with hearing impairment.

Method of data analysis

Quantitative data collected were analysed using descriptive statistics, including the mean and simple percentages, to provide answers to the research questions.

FINDINGS OF THE STUDY

The findings of this study is outlined below

Research question 1: What are some socio-emotional challenges encountered by employees with hearing impairment in workplaces due to their communication disability?

Table 1. Showing frequency distribution of the socio-emotional challenges.

S/N	Questions	SA	A	D	SD	Mean $\bar{X}$	Std.Dev.
1	I feel well understood and supported by my coworkers and superiors in my workplace regarding my hearing impairment.	7 21.2%	9 27.3%	4 12.1%	13 39.4%	2.30	1.212
2	My workplace provides a conducive environment that helps me perform my duties effectively.	9 27.3%	9 27.3%	6 18.2%	9 27.3%	2.55	1.175
3	I am often excluded from social activities in my workplace.	8 24.2%	12 36.4%	5 15.2%	8 24.2%	2.61	1.116
4	I am comfortable disclosing my hearing impairment to my colleagues and superiors in the workplace	2 6.1%	18 54.5%	4 12.1%	9 27.3%	2.39	.966
5	The communication barriers caused by my hearing impairment have led to misunderstandings or misinterpretations of my ideas or instructions at work.	12 36.4%	10 30.3%	3 9.1%	8 24.2%	2.79	1.193
6	I feel that I am treated fairly in terms of workload, responsibilities, and promotions, despite my hearing impairment	7 21.2%	9 27.3%	8 24.2%	9 27.3%	2.42	1.119
7	I have access to resources for coping with stress or emotional difficulties related to my hearing impairment in the workplace	9 27.3%	18 54.5%	2 6.1%	4 12.1%	2.97	.918
8	I believe that my career advancement opportunities are limited due to my hearing impairment.	11 33.3%	18 57.6%	1 3.0%	2 6.1%	3.18	.769
9	I feel that my mental and emotional well-being is negatively impacted by the socio-emotional challenges related to my hearing impairment at work.	2 6.1%	10 30.3%	1 3.0%	20 60.6%	1.82	1.074
10	My hearing impairment leads to misunderstandings or misinterpretations of instructions, affecting my ability to complete tasks efficiently	6 18.2%	13 39.4%	7 21.2%	7 21.2%	2.55	1.034

Weighted mean = 2.56

Threshold 2.50

Keys: SA (4) – Strongly Agree, A (3) – Agree, SD (2) – Strongly Disagree, D (1) – Disagree, $\bar{X}$ - Mean, Std- Standard deviation

Table 1 showed the frequency distribution of the socio-emotional challenges encountered by employees with hearing impairment in workplaces due to their communication disability. The data was analysed using the descriptive statistics that showed a weighted mean of 2.56, indicating a moderate agreement with the challenges faced. The highest mean score (3.18) highlights limited career advancement due to hearing impairment. Communication barriers scored 2.79, while access to stress coping resources scored 2.97, suggesting uneven support availability. Social exclusion had a mean of 2.61. Lower scores were noted for feeling understood by coworkers (2.30) and comfort in disclosing impairment (2.39), pointing to a lack of psychological safety. The lowest score (1.82)



related to mental and emotional well-being suggests either low perceived impact or reluctance to report. This affirms that employees with hearing impairment face socio-emotional challenges in career growth, communication, inclusion, and support.

Research question 2: What sorts of violence do employees with hearing impairment encounter in the workplace?

Table 2. Showing frequency distribution of the sorts of violence.

S/N	Questions	SA	A	D	SD	Mean $\bar{X}$	Std.Dev.
1	I do experience derogatory comments, insults, or offensive language related to my hearing impairment at work	9 27.3%	24 72.7%	-	-	3.27	.452
2	I sometimes feel some of my coworkers abuse my privacy in my workplace	11 33.3%	13 39.4%	4 12.1%	5 15.2%	2.91	1.042
3	I do experience physical aggression or harm in the workplace	4 12.1%	13 39.4%	7 21.2%	9 27.3%	2.36	1.025
4	I have encountered unfair treatment, discrimination, or bias in employment decisions (e.g., hiring, promotions) because of my hearing impairment	10 30.3%	6 18.2%	9 27.3%	8 24.2%	2.55	1.175
5	I do experience subtle, unintentional acts or comments that are insensitive or discriminatory based on my hearing impairment	14 42.4%	7 21.2%	8 24.2%	4 12.1%	2.94	1.088
6	I do experience threats and intimidation from my colleagues in my workplace	7 21.2%	11 33.3%	10 30.3%	5 15.2%	2.61	.998
7	I am often the target of offensive jokes or pranks related to my hearing impairment in the workplace	4 12.1%	15 45.5%	10 30.3%	4 12.1%	2.58	.867
8	I get into arguments with my colleagues and supervisors due to misunderstandings arising from communication difficulties in the workplace	6 18.2%	13 39.4%	8 24.2%	6 18.2%	2.58	1.001
9	I do experience retaliation or negative consequences for reporting incidents of violence or discrimination in my workplace	7 21.2%	13 39.4%	9 27.3%	4 12.1%	2.70	.951
10	I do receive verbal threats or aggressive language from my colleagues and superiors	7 21.2%	10 30.3%	10 30.3%	6 18.2%	2.55	1.034

Weighted mean = 2.71

Threshold 2.50

Keys: SA (4) – Strongly Agree, A (3) – Agree, SD (2) – Strongly Disagree, D (1) – Disagree, $\bar{X}$ - Mean, Std- Standard deviation

Table 2 showed the frequency distribution of the sorts of violence that employees with hearing impairment encounter in the workplace. The data was analysed using the descriptive statistics that showed a weighted mean of 2.71, indicating a moderate exposure to workplace violence among employees with hearing impairment. The highest mean score (3.27) revealed that derogatory comments and offensive language were the most prevalent. High mean scores were also recorded for subtle discrimination (2.94) and invasion of privacy (2.91), indicating covert discrimination. Retaliation for reporting incidents (2.70) and threats or intimidation (2.61) suggested institutional or peer pressure. Moderate scores for offensive jokes/pranks (2.58) and arguments from communication barriers (2.58) showed that communication issues could escalate conflicts. Physical aggression had the lowest score (2.36), showing it is rare compared to verbal, emotional, and systemic violence. Overall, the data showed regular exposure to verbal abuse, subtle discrimination, limited psychological safety, and insufficient institutional protection.

Research Question 3: What sorts of incentive deprivation do employees with hearing impairment encounter in the workplace?


Table 3. Showing frequency distribution of the sorts of incentive deprivation.

S/N	Questions	SA	A	D	SD	Mean $\bar{x}$	Std.Dev.
1	I receive the same financial incentives and bonuses as my colleagues without a hearing impairment for the same level of performance.	8 24.2%	8 24.2%	6 18.2%	11 33.3%	2.39	1.197
2	My workplace provides fair opportunities for career advancement and promotions, regardless of my hearing impairment.	9 27.3%	8 24.2%	10 30.3%	6 18.2%	2.61	1.088
3	I believe that I enjoy equal access to professional development and training opportunities, even though I have a hearing impairment.	9 27.3%	11 33.3%	6 18.2%	7 21.2%	2.67	1.109
4	I believe that my hearing impairment influences my chances of receiving special recognitions, awards, or bonuses.	3 9.1%	17 51.5%	8 24.2%	5 15.2%	2.55	.869
5	I have had to make personal financial sacrifices due to a lack of equal access to workplace incentives or benefits related to my hearing impairment.	13 39.4%	9 27.3%	6 18.2%	5 15.2%	2.91	1.100
6	My workplace actively addresses and mitigates any disparities in incentives and benefits for employees with hearing impairment.	10 30.3	10 30.3%	8 24.2%	5 15.2%	2.76	1.062
7	My colleagues and superiors show understanding and support when it comes to my participation in incentive programs, given my hearing impairment.	13 39.4%	17 51.5%	1 3.0%	2 6.1%	3.24	.792
8	I feel that my performance evaluations and feedback are influenced by my hearing impairment, affecting my eligibility for incentives.	16 48.5%	15 45.5%	1 3.0%	1 3.0%	3.39	.704
9	My workplace actively promotes diversity and inclusion, ensuring that employees with hearing impairment have equal access to all incentive programs and benefits.	5 15.2%	10 30.3%	1 3.0%	17 51.5%	2.09	1.208
10	I am confident that my workplace values my skills and contributions, and this is reflected in my productivity and job satisfaction.	2 6.1%	11 33.3%	6 18.2%	14 42.4%	2.03	1.015

Weighted mean: 2.66

Threshold: 2.50

Keys: SA (4) – Strongly Agree, A (3) – Agree, SD (2) – Strongly Disagree, D (1) – Disagree, $\bar{x}$ - Mean, Std- Standard deviation

Table 3 showed a frequency distribution of the sorts of incentive deprivation that employees with hearing impairment encounter in the workplace. The data was analyzed using the descriptive statistics that showed a weighted mean of 2.66, indicating a moderate level of agreement that incentive deprivation is experienced by employees with hearing impairment. The highest mean score (3.39) showed that performance evaluations and feedback are influenced by hearing impairment. This is followed by support from colleagues and superiors in incentive programs (Mean = 3.24) and personal financial sacrifices due to lack of access to incentives (Mean = 2.91). Other notable scores include workplace mitigation of disparities (Mean = 2.76), access to professional development (Mean = 2.67), career advancement opportunities (Mean = 2.61), and influence on recognitions (Mean = 2.55). The lowest mean scores were observed in financial incentive equality (Mean = 2.39), promotion of diversity and inclusion (Mean = 2.09), and confidence in workplace value of skills and contributions (Mean = 2.03). This indicates that despite some support, employees with hearing impairment still face incentive deprivation.

Research question 4: How do challenges encountered by employees with hearing impairment in the workplace affect their productivity?

Table 4. Showing the frequency distribution of the challenges encountered.

S/N	Questions	SA	A	D	SD	Mean $\bar{x}$	Std.Dev.
1	The lack of sufficient support and understanding from my colleagues negatively affects my productivity	8 24.2%	10 30.3%	5 15.2%	10 30.3%	2.48	1.176
2	My bosses don't usually delegate assignments to me.	9 27.3%	11 33.3%	8 24.2%	5 15.2%	2.73	1.039
3	The lack of sufficient support from the management in addressing challenges faced by employees with hearing impairment affects their overall productivity.	6 18.2%	11 33.3%	8 24.2%	5 15.2%	2.45	1.063
4	I do not receive the same salary structure as my hearing colleagues due to my hearing impairment	4 12.1%	16 48.5%	8 24.2%	5 15.2%	2.58	.902
5	My salary is lower than that of my coworkers.	13 39.4%	11 33.3%	5 15.2%	4 12.1%	3.00	1.031
6	The workplace challenges related to my hearing impairment harm my overall job performance and productivity.	11 33.3%	13 39.4%	6 18.2%	3 9.1%	2.97	.951
7	I find it difficult to participate actively in meetings, discussions and group activities	12 36.4%	18 54.5%	1 3.0%	2 6.1%	3.21	.781
8	I feel that my hearing impairment is considered when setting performance goals and expectations in my workplace.	19 57.6%	13 39.4%	1 3.0%	-	3.55	.564
9	I often find it difficult to communicate effectively with colleagues and superiors due to my hearing impairment, which hinders my work productivity	6 18.2%	11 33.3%	1 3.0%	15 45.5%	2.24	1.226
10	I often find my workload very stressful	3 9.1%	11 33.3%	7 21.2%	12 36.4%	2.15	1.034

Weighted mean = 2.74

Threshold: 2.50

Keys: SA (4) – Strongly Agree, A (3) – Agree, SD (2) – Strongly Disagree, D (1) – Disagree, $\bar{x}$ - Mean, Std- Standard deviation.

Table 4 showed the frequency distribution of challenges encountered by employees with hearing impairment and their impact on productivity. The overall weighted mean was 2.74, which is above the threshold of 2.50, the overall weighted mean was 2.74 which indicated a moderate agreement that challenges faced by employees with hearing impairment affect their productivity. The highest mean score (3.55) showed that hearing impairment is considered when setting performance goals. This was followed by difficulty in participating in group activities (Mean = 3.21) and the impact of workplace challenges on job performance (Mean = 2.97). Other high scores included lower salary than coworkers (Mean = 3.00), lack of task delegation (Mean = 2.73), and unequal salary structure (Mean = 2.58). Lower scores were recorded for insufficient colleague support (Mean = 2.48), insufficient management support (Mean = 2.45), communication difficulties (Mean = 2.24), and work-related stress (Mean = 2.15). The findings showed that despite some accommodations, challenges still affect productivity.

DISCUSSION, CONCLUSION, and RECOMMENDATION

Research question one examined some socio-emotional challenges experienced by employees with hearing impairment in workplaces due to their communication disability. The findings reveal that the weighted mean surpasses the standard mean, indicating that such socio-emotional challenges are high for employees with hearing impairment in workplaces due to their communication disability. This aligns with the study of Shan, et al. (2020), which showed that individuals with hearing impairment were more likely to be unemployed than those without hearing impairment. Further, Dammyer, et al. (2019), Pierre, et al. (2012), as well as Svinndal, et al. (2018), discovered that while hearing



impairment is more prevalent among men, unemployment inequity is higher among women, highlighting a heightened need for employers to provide sick leaves, disability pensions, and sickness benefits.

Research question two on the sorts of violence encountered by employees with hearing impairment in the workplace, the findings demonstrate that the weighted mean exceeds the standard mean. This indicates that the rates of violence faced by employees with hearing impairment in the workplace are high, with all the identified factors being forms of violence encountered. Danermark, (2004) concluded that employees with hearing impairments form a vulnerable group within the workforce and face more demanding working conditions compared to colleagues with normal hearing. World Health Organisation (WHO, 2021) and Punch, (2016) attribute this vulnerability to a combination of barriers, including discrimination and lack of support for individuals with hearing impairment.

From research question three on the types of incentive deprivation experienced by employees with hearing impairment in the workplace, findings show that the weighted mean is greater than the standard mean. This signifies that incentive deprivation among such employees is high, and all the factors identified are forms of incentive deprivation encountered. These results agree with Peterson, (2005), who argued that physical disabilities often lead to limited or entirely restricted career development opportunities. Past workplace restrictions contribute to decreased social and vocational opportunities, and globally, people with disabilities routinely face neglect regarding their rights to training, employment, and career advancement. Gupta, et al. (2022) observed that challenges in employment among persons with hearing impairment extend beyond hearing loss alone. Studies have also noted wage disparities between hearing and hearing-impaired employees, workplace discrimination, lack of accessibility, and inadequate accommodation.

Research question four considered how challenges encountered by employees with hearing impairment in the workplace affect their productivity. Findings show that the weighted mean is higher than the standard mean, meaning the impact of these challenges on productivity is significant. This is consistent with Dammeyer et al. (2019), who identified negative consequences of hearing impairment on physical, mental, and psychological health and well-being. Uchida, et al. (2019) found that communication difficulties linked to hearing impairment have adverse effects on quality of life, such as social isolation, loneliness, depression, stress, and cognitive decline. Additionally, hearing impairment has been associated with lower educational attainment and decreased workplace participation among individuals with hearing impairment (Granberg, 2021).

This study examined the workplace challenges of graduate employees with hearing impairment in Oyo State. The findings revealed that such employees encounter considerable socio-emotional difficulties, including communication barriers, limited opportunities for career advancement, and experiences of social exclusion. They are also subjected to different forms of workplace violence, such as derogatory remarks, subtle discrimination, invasion of privacy, and unfair treatment in employment decisions. In addition, the study established that employees with hearing impairment are often deprived of incentives, ranging from unequal access to financial benefits to limited opportunities for training and promotion. These challenges were found to significantly affect their productivity, reducing their job satisfaction and overall contribution to organisational goals. The study, therefore, concludes that although efforts are being made to promote workplace inclusivity, employees with hearing impairment continue to face systemic obstacles that restrict their professional development and economic empowerment.

It is recommended that the government strengthen disability-inclusive labour policies and ensure their strict enforcement in organisations, while also conducting periodic audits to guarantee compliance with disability rights laws. Employers, on their part, should adopt inclusive workplace policies that eliminate discrimination, provide equal access to incentives, and address communication barriers through the provision of sign language interpreters, captioning services, and assistive technologies. There is also a need for regular training of employers, managers, and co-workers on disability



awareness and effective communication with employees who have hearing impairment, alongside the provision of mentorship and professional development opportunities for such employees.

Organisations should establish support services such as counselling and psychological assistance to help employees cope with socio-emotional challenges, while also instituting grievance redress mechanisms to protect them from workplace violence and unfair practices. Ensuring that employees with hearing impairment have equal access to financial incentives, promotions, and welfare benefits is crucial to improving their job satisfaction and productivity. By adopting these measures, both policymakers and organisations can create a more inclusive and supportive work environment where employees with hearing impairment are empowered to thrive and contribute meaningfully to national development.

Ethics and Conflict of Interest

The authors of the study acted in accordance with ethical rules in all processes of the research. There are no individuals or financial relationships that could be perceived as potential conflicts of interest related to this study.

Author Contribution

All authors contributed equally to the research.

Data availability

The data that support the findings of this study are available on request from the corresponding author.

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EXAMINING THE RELATIONSHIP BETWEEN SPECIAL EDUCATION TEACHERS' EXPOSURE TO MOBBING AND THEIR HAPPINESS AT WORK LEVELS

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Received: November 19, 2025 **Accepted:** December 28, 2025 **Published:** December 31, 2025

Suggested Citation:

Solmaz, A., & Nuri, C. (2025). Examining the relationship between special education teachers' exposure to mobbing and their happiness at work levels. *Turkish International Journal of Special Education and Guidance & Counseling (TIJSEG)*, 14(2), 288-297.



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Abstract

This study aimed to examine the relationship between the levels of mobbing exposure and happiness at work among special education teachers, considering various variables. The research was conducted using a relational survey model, a quantitative research method. Participants included 127 special education teachers working during the 2023-2024 academic year. The “Mobbing Scale” and “Happiness at Work Scale” were used as data collection tools. Results revealed a negative correlation between mobbing exposure and happiness at work: as teachers' exposure to mobbing increased, their levels of happiness at work decreased. Additionally, mobbing experiences significantly and negatively predicted workplace happiness. The study concludes with recommendations to raise awareness about mobbing and its impacts.

Keywords: Special education, mobbing, happiness, happiness at work, special education teacher.

INTRODUCTION

Teachers' positive attitudes toward their profession significantly contribute to students' educational outcomes and the effectiveness of teaching practices. However, numerous factors influence teachers' happiness, including professional loneliness (Bayar & Bayar, 2022). While some individuals may not feel isolated in their personal lives, they might experience intense loneliness in the workplace. Work environments are social settings where individuals encounter diverse emotional experiences (Demirbaş & Haşit, 2016). Another critical concept is mobbing.

Mobbing refers to systematic psychological pressure exerted on individuals or groups in the workplace. This phenomenon often follows a deliberate strategy aimed at harming individuals (Demir, 2021). It encompasses bullying, harassment, and abuse, representing a process anyone might endure (Keashly, 2021). Victims of mobbing typically face disrespectful behavior first, followed by verbal ridicule, damage to their social status, and eventual coercion to leave their jobs (Grotto-de-Souza et al., 2022). Under current conditions marked by intensified competition, economic crises, and rising unemployment, mobbing cases have notably increased (Işık, 2021).

Mobbing is particularly prevalent in the education sector. Interactions among teachers, administrators, and students in schools place all parties at risk of workplace harassment (Akgün & Temli-Durmuş, 2020; Çobanoğlu, 2005). Like other sectors, mobbing in schools leads to adverse consequences for both individuals and institutions, underscoring the critical role of school administrators in addressing this issue (Yıldız, 2021).



Teachers' happiness, as the cornerstone of the education system, profoundly impacts society. Schools are institutions where both inputs and outputs are human beings. Thus, ensuring teachers' happiness is essential for fostering environments where children can thrive (Lavy & Bocker, 2018). Unhappy teachers are likely to raise unhappy individuals, with negative repercussions for society. Consequently, educational institutions must develop policies that prioritize employee well-being (Akbulut, 2015; Dreer, 2024).

Special education teachers, in particular, face heightened psychological pressure and mobbing due to the demanding nature of their work (Berry & Gravelle, 2013). This can diminish their motivation and professional performance (Ateş, 2019). While existing literature examines teachers' experiences of mobbing and its correlations with various factors, no studies specifically explore the relationship between mobbing exposure and workplace happiness among special education teachers.

This study aims to investigate the relationship between mobbing exposure and workplace happiness levels among special education teachers. It focuses on the dimensions of mobbing they encounter and its impact on their well-being. The findings may provide critical insights for educational administrators and policymakers to foster healthier work environments, enhancing both teachers' job satisfaction and the quality of education for students. The following research questions guide this study:

1. What are the levels of teachers' mobbing perceptions and workplace happiness?
2. Is there a relationship between teachers' mobbing perceptions and workplace happiness?

METHOD

This section outlines the research model, study group, data collection tools, and procedures for data collection and analysis.

Research Model

The study employed a relational survey model, a quantitative research method, to examine the relationship between mobbing exposure and workplace happiness levels among special education teachers. A relational survey model is defined as a research design that evaluates relationships between multiple variables and identifies variations among them (Karasar, 2012).

Study Group

The target population of the study consists of special education teachers. The sample was selected using purposeful sampling, a method applied to compare and define the characteristics of a specific group (Büyüköztürk et al., 2016). A total of 127 special education teachers participated in the study. The socio-demographic characteristics of the participants are summarized in Table 1.

Table 1. Distribution according to participants' socio-demographic characteristics.

Category	Subcategory	Number (n)	Percentage (%)
Gender	Female	68	53.54
	Male	59	46.46
Age	20-29 years	85	66.93
	30-39 years	36	28.35
	40-49 years	6	4.72
Marital Status	Single	75	59.06
	Married	52	40.94



Data Collection Tools

In line with the research objectives, data were collected using a socio-demographic information form developed by the researcher, the Mobbing Scale, and the Happiness at Work Scale.

Socio-Demographic Information Form

This section of the survey included demographic characteristics of the participating teachers, such as age, gender, marital status, and educational background.

Mobbing Scale

The Mobbing Scale used in the study was developed by Tursun (2019) to measure participants' perceptions of workplace mobbing. The scale consists of 22 items on a 5-point Likert scale, with responses ranging from Never Encountered (1) to Always Encountered (5). Items were categorized into three dimensions: Factors based on ideological and visual features (Items 17, 18, 27, 16, 29, 26, 20, 28, 24, 15, 25), Trivialization in professional life (Items 23, 21, 19, 7, 14), Social relationships and lack of appreciation (Items 4, 2, 3, 5, 11, 12). The scale's Cronbach's alpha reliability coefficient was reported as 0.913 (Tursun, 2019).

Happiness at Work Scale

To assess teachers' workplace happiness, the Happiness at Work Scale developed by Polatçı and Ünüvar (2021) was used. This 38-item scale employs a 5-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (5). It comprises four sub-dimensions: Managerial-related happiness, Workplace-related factors happiness, Person-job fit-related happiness, Workplace friendship-related happiness. The scale's overall Cronbach's alpha reliability coefficient was 0.95 (Polatçı & Ünüvar, 2021).

Data Collection

Prior to data collection, permission was obtained from the original authors to use the scales. The study was conducted with ethical approval from the International Cyprus University Scientific Research Ethics Committee. Data were collected via face-to-face interviews, with participants informed about the study's purpose and assured confidentiality. Participation was voluntary, and the survey took approximately 20 minutes to complete.

Data Analysis and Interpretation

Data were analyzed using SPSS 27.0. Frequency analyses and descriptive statistics were employed to summarize socio-demographic characteristics and scale scores. Reliability was confirmed via Cronbach's alpha (0.956 for the Mobbing Scale, 0.931 for the Happiness at Work Scale). Normality assumptions were tested using the Kolmogorov-Smirnov test and skewness-kurtosis values, confirming normal distribution. Parametric tests (independent samples t-test, ANOVA, Tukey post-hoc) were applied for comparisons. Relationships between variables were analyzed via Pearson correlation, and multivariate linear regression was used to predict workplace happiness based on mobbing scores.

Table 2. Normality tests for participants' mobbing scale scores.

Variables	Kolmogorov-Smirnov				
	Test Statistic (D)	sd	p	Skewness	Kurtosis
Factors based on ideological and visual features	.123	127	.000*	-.272	-.984
Trivialization in professional life	.114	127	.000*	-.109	-.691
Social relationships and lack of appreciation	.102	127	.002*	-.183	-.716
Mobbing Scale	.103	127	.002*	-.369	-.855

* $p < .05$



Table 2 presents the results of the Kolmogorov-Smirnov test and skewness-kurtosis coefficients to assess the normality of participants' Happiness at Work Scale scores. According to the Kolmogorov-Smirnov test results in Table 3, the Happiness at Work Scale scores did not conform to a normal distribution ($p < .05$). However, since the skewness and kurtosis coefficients fell within the range of ± 1.5 , the data was deemed to follow a normal distribution. Tabachnick and Fidell (2013) state that skewness and kurtosis coefficients between ± 1.5 indicate normal distribution. Consequently, parametric tests were used to test the research hypotheses.

Table 3. Normality tests for participants' happiness at work scale scores.

Variables	Kolmogorov-Smirnov			Skewness	Kurtosis
	Test Statistic (D)	sd	p		
Managerial-related factors	.141	127	.000*	.406	.337
Workplace-related factors factors	.126	127	.000*	.189	.379
Person-Job Fit	.133	127	.000*	-.702	1.246
Workplace Friendship	.185	127	.000*	.248	.906
Happiness at Work Scale	.108	127	.001*	.268	.991

* $p < .05$

Table 3 examines the normality of participants' Happiness at Work Scale scores using the Kolmogorov-Smirnov test and skewness-kurtosis coefficients. According to the Kolmogorov-Smirnov test results, the Happiness at Work Scale scores did not follow a normal distribution ($p < 0.05$). However, since the skewness and kurtosis coefficients fell within the range of ± 1.5 , the data was considered to approximate normality.

FINDINGS

Findings on the Mobbing Scale

Table 4. Descriptive Statistics for Participants' Mobbing Scale Scores

Variables	n	$\bar{x}$	SD	Min	Max
Factors based on ideological and visual features	127	24.57	8.39	11	46
Trivialization in professional life	127	11.70	4.05	5	22
Social relationships and lack of appreciation	127	14.09	4.69	6	24
Mobbing Scale	127	50.37	15.93	22	84

Table 4 presents the descriptive statistics for participants' Mobbing Scale scores. According to Table 4, participants scored 24.57 ± 8.39 on the Factors based on ideological and visual features subscale, 11.70 ± 4.05 on the Trivialization in professional life subscale, and 14.09 ± 4.69 on the Social relationships and lack of appreciation subscale. The total Mobbing Scale score was 50.37 ± 15.93 .

Findings on the Happiness at Work Scale

Table 5. Descriptive statistics for participants' happiness at work scale scores.

Variables	n	$\bar{x}$	SD	Min	Max
Managerial-related factors	127	42.10	10.03	14	70
Workplace-related factors factors	127	28.16	6.37	10	45
Person-Job Fit	127	25.41	5.17	8	36
Workplace Friendship	127	12.41	2.98	4	20
Happiness at Work Scale	127	108.08	20.21	36	167



Table 5 displays the descriptive statistics for participants' Happiness at Work Scale scores. According to Table 5, participants scored an average of 42.10 ± 10.03 on the Managerial-related happiness subscale, 28.16 ± 6.37 on the Workplace-related factors happiness subscale, 25.41 ± 5.17 on the Person-Job Fit-related happiness subscale, and 12.41 ± 2.98 on the Workplace Friendship-related happiness subscale. The total Happiness at Work Scale score averaged 108.08 ± 20.21 .

Findings on the Relationship Between the Mobbing Scale and the Happiness at Work Scale

Table 6. Correlations between participants' mobbing scale and happiness at work scale scores.

		Factors based on ideological and visual features	Trivialization in professional life	Social relationships and lack of appreciation	Mobbing Scale	Managerial-related factors	Workplace-related factors	Person-Job Fit	Workplace Friendship	Happiness at Work Scale
Factors based on ideological and visual feature	r	1								
	p									
	N	127								
Trivialization in professional life	r	.875	1							
	p	.000*								
	N	127	127							
Social relationships and lack of appreciation	r	.743	.720	1						
	p	.000*	.000*							
	N	127	127	127						
Mobbing Scale	r	.967	.926	.868	1					
	p	.000*	.000*	.000*						
	N	127	127	127	127					
Managerial-related factors	r	-.480	-.437	-.448	-.495	1				
	p	.000*	.000*	.000*	.000*					
	N	127	127	127	127	127				
Workplace-related factors	r	-.159	-.151	-.163	-.170	.631	1			
	p	.074	.091	.066	.056	.000*				
	N	127	127	127	127	127	127			
Person-Job Fit	r	-.425	-.371	-.515	-.470	.512	.493	1		
	p	.000*	.000*	.000*	.000*	.000*	.000*			
	N	127	127	127	127	127	127	127		
Workplace Friendship	r	-.433	-.395	-.513	-.480	.562	.364	.588	1	
	p	.000*	.000*	.000*	.000*	.000*	.000*	.000*		
	N	127	127	127	127	127	127	127	127	
Happiness at Work Scale	r	-.461	-.418	-.481	-.490	.909	.808	.752	.692	1
	p	.000*	.000*	.000*	.000*	.000*	.000*	.000*	.000*	
	N	127	127	127	127	127	127	127	127	127

* $p < .05$

When Table 6, which presents the Pearson correlation test results between the participants' scores on the Mobbing Scale and the Happiness at Work Scale in the study, is examined, it is determined that there are statistically significant correlations ($p < .05$) between the participants' total Mobbing Scale scores, as well as their scores on the subscales of “Factors based on ideological and visual feature”,



“Trivialization in professional life”, and “Social relationships and lack of appreciation”, and their total Happiness at Work Scale scores, along with the subscales of “Managerial-related factors”, “Workplace-related factors”, “person-job fit”, and “workplace friendship”. These correlations are negative in direction, indicating that as the participants' scores on the total Mobbing Scale and its subscales (Factors based on ideological and visual feature, trivialization in professional life, and social relationships and lack of appreciation) increase, their scores on the total Happiness at Work Scale and its subscales (Managerial related factors, Workplace-related factors, person-job fit, and workplace friendship) decrease.

Table 7. The predictive role of participants' total mobbing scale scores on their happiness at work scale scores.

	Std. Coeff.		Std. Error		p	F	R ²
	B	SE	β	t			AdjR ²
(Constant)	139.41	5.22		26.699	.000*	39.573	.240
Mobbing Scale	-.62	.10	-.49	-6.291	.000*	.000*	.234

*p< .05

Table 7 presents the results of the simple linear regression analysis conducted to examine the predictive relationship between the participants' total Mobbing Scale scores and their Happiness at Work Scale scores in the study. According to Table 7, it was found that the participants' total Mobbing Scale scores statistically significantly and negatively predict their Happiness at Work Scale scores ($\beta = -.49$; $p < .05$). The variance explained by the model regarding the predictive relationship between the participants' total Mobbing Scale scores and their Happiness at Work Scale scores is 23.4%.

Table 8. Prediction of participants' mobbing scale sub-dimension scores on happiness at work scale scores.

Variables	Std. Coeff.		Std. Error		t	p	F	R ²
	B	SE	B					AdjR ²
(Constant)	140.43	5.28			26.596	.000*		
Factors based on ideological and visual feature	-.61	.41	-.25		-1.494	.138	14.089	.256
Trivialization in professional life	.16	.82	.03		.197	.844	.000*	.238
Social relationships and lack of appreciation	-1.36	.51	-.32		-2.650	.009*		

*p<.05

Table 8 presents the results of the multivariate regression analysis examining the predictive relationship between the participants' subscale scores on the Mobbing Scale and their Happiness at Work Scale scores. According to Table 8, the scores from the subscales of “Factors based on ideological and visual feature” ($\beta = -.25$; $p > .05$) and “Trivialization in professional life” ($\beta = .03$; $p > .05$) in the Mobbing Scale were found not to statistically significantly predict Happiness at Work Scale scores. However, the scores from the “Social relationships and lack of appreciation” subscale of the Mobbing Scale were found to statistically significantly and negatively predict Happiness at Work Scale scores ($\beta = -.32$; $p < .05$). The model explained 23.8% of the variance in Happiness at Work Scale scores.

DISCUSSION, CONCLUSION, and RECOMMENDATIONS

The findings of the study indicate that the participants' total Mobbing Scale score was 50.37 ± 15.93 , suggesting that they experienced moderate levels of workplace mobbing. Similar studies have reported mobbing scores within comparable ranges (Einarsen, Hoel, Zapf, & Cooper, 2003). The subscale findings highlight distinct dynamics of mobbing. The high score on the "Factors based on



ideological and visual feature" subscale (24.57 ± 8.39) suggests that participants were targeted due to personal beliefs, appearance, or socio-cultural identities, aligning with Leymann's (1996) concept of "systematic exclusion" as a core mechanism of mobbing.

The score of 11.70 ± 4.05 on the "Trivialization in professional life" subscale reflects environments where participants' professional competence or contributions were deliberately disregarded, consistent with literature linking hierarchical power dynamics to mobbing behaviors (Zapf, Knorz, & Kulla, 1996). The score of 14.09 ± 4.69 on the "Social relationships and lack of appreciation" subscale indicates experiences of social isolation and communication barriers, a critical dimension undermining psychological resilience (Niedl, 1996). However, cultural and organizational contextual limitations must be acknowledged. For instance, collectivist cultures may manifest conflicts more indirectly (Aquino & Thau, 2009), warranting future research on cultural validity and qualitative validation.

Regarding Happiness at Work Scale scores, the "Managerial-related factors" subscale had the highest mean (42.10 ± 10.03), aligning with studies emphasizing leadership styles and managerial support as key to employee well-being (Bakker & Demerouti, 2017). Lower scores on the "Workplace-related factors" subscale (28.16 ± 6.37) suggest potential deficiencies in institutional policies or physical conditions, resonating with literature on resource inadequacy and motivation (Demirtaş & Öztürk, 2021). The relatively low scores for "person-job fit" (25.41 ± 5.17) and "Workplace Friendship" (12.41 ± 2.98) may reflect skill-job mismatches or insufficient social support, underscoring the need for interventions (Bilgin & Kutlu, 2023). The total score (108.08 ± 20.21) suggests moderate workplace happiness, with potential cultural variability compared to global averages (Sever, Özdemir, & Acar, 2020).

The findings confirm significant negative correlations between mobbing and workplace happiness, consistent with literature on mobbing's detrimental effects (Einarsen et al., 2003; Nielsen & Einarsen, 2012). High scores on "Factors based on ideological and visual features" and "Social relationships and lack of appreciation" subscales reduced perceptions of managerial and workplace-related factors happiness, reflecting exclusion and discrimination dynamics (Parzefall & Salin, 2010). These align with theories linking thwarted belongingness (Deci & Ryan, 2000) and identity threats (Verkuyten, Yogeeswaran, & Adelman, 2023) to diminished well-being.

The nonsignificant negative relationship between "Trivialization in professional life" and happiness suggests indirect or long-term effects (Bowling & Beehr, 2006), while "person-job fit" and "friendship" inversely correlating with mobbing highlights disrupted adaptation and social support (Kristof-Brown et al., 2005; Riordan & Griffeth, 1995). These findings align with research on work experiences impacting performance and resilience (Sonnentag & Fritz, 2015). Organizations should develop anti-mobbing policies, enhance leadership sensitivity, and foster inclusive communication. Happiness at work initiatives (e.g., work-life balance programs) may buffer mobbing effects (Nielsen et al., 2017; Yelmen, Nuri & Bağlama, 2024).

Total Mobbing Scale scores significantly negatively predicted Happiness to Work ($\beta = -.49$; $p < .05$), explaining 23.4% variance. While not the sole determinant, mobbing's significant role underscores the need for preventive measures (Hogh et al., 2011). Multivariate analysis revealed differential subscale impacts: "Social relationships and lack of appreciation" significantly predicted reduced happiness ($\beta = -.32$; $p < 0.05$), emphasizing social support's role (Diener et al., 2010). Non-significant results for other subscales (e.g., $\beta = -.25$, $\beta = .03$; $p > .05$) suggest cultural or contextual mediation (Einarsen et al., 2003). The model's 23.8% variance explanation aligns with conservation of resources theory (Halbesleben et al., 2014; Yelmen, Nuri & Bağlama, 2024), where social resource depletion heightens stress.



Conclusion

This study empirically confirms mobbing's adverse impact on workplace happiness, urging proactive anti-mobbing strategies and psychosocial risk mitigation. Cross-sectional limitations necessitate cautious interpretation, with future research exploring cultural contexts and longitudinal dynamics. Strengthening social relationships and psychological safety is vital, while non-significant subscale effects highlight the need for culturally adapted measurement tools.

Recommendations

To enhance happiness, organizations should prioritize manager training, workplace improvements, and person-job fit programs. However, the cross-sectional design limits causal inferences; future longitudinal studies are recommended. Culturally sensitive mobbing assessments and mixed-method approaches are critical.

Ethics and Conflict of Interest

This study was conducted according to ethical and research standards. All participants participated to study were volunteers. Information about study subject, aim and researchers were given to the participants. As the authors of this study, we declare that we collected data in accordance with ethical rules during the research process and acted in accordance with all ethical rules. This study was conducted in accordance with publication and research ethics. Ethical approval for this study was obtained from the Cyprus International University Scientific Research and Publication Ethics Committee under decision number EKK24-25/01/11 on October 09, 2025. Data collected from participants on a voluntary basis were treated with confidentiality. We also declare that there is no conflict among the authors.

Author Contribution

All authors contributed equally to the research.

Data availability

The data that support the findings of this study are available on request from the corresponding author.

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