Modeling and Validating Teacher Immunity: Insights from Iranian EFL Educators Using Structural Equation Modeling

ABSTRACT

Teacher immunity plays a pivotal role in maintaining resilience and effectiveness in the face of professional challenges. This study investigates the factors influencing teacher immunity among Iranian English as a Foreign Language (EFL) teachers, addressing a critical gap in understanding the mechanisms that promote resilience in educational contexts. Employing a quantitative research design, the study developed and validated a comprehensive model of teacher immunity using Grounded Theory and Structural Equation Modeling (SEM). The sampling strategy involved convenience sampling, recruiting 384 participants from diverse cities across Iran to ensure a wide representation of Iranian EFL teachers' perspectives. Data collection included a questionnaire designed to assess eight critical components of teacher immunity, such as supportive work environments, professional development opportunities, work-life balance, and autonomy. The data were analyzed using SmartPLS software for SEM and SPSS 26 for descriptive and exploratory analyses. The findings revealed a robust model of teacher immunity, confirmed through rigorous statistical evaluation, including high R^2 values and good fit indices. Key predictors included job satisfaction, student relationships, and professional development opportunities. These results underscore the need for tailored interventions to support EFL teachers' resilience and professional growth in diverse educational settings. Future studies should expand on these findings to explore cross-cultural applicability and longitudinal dynamics of teacher immunity.

KEYWORDS: EFL Teaching, Professional Development, Teacher Immunity

1. INTRODUCTION:

Within the dynamic realm of education, educators play a critical role in shaping learners' cognitive and affective growth. Teachers encounter various obstacles, especially in countries like Iran with distinct cultural and educational backgrounds. In this particular environment, teachers of English as a foreign language (EFL) face unique conditions that call for a comprehensive analysis of their experiences. This study aims to investigate and create a thorough model of teacher immunity, specifically tailored to the Iranian educational system, by highlighting the opinions and viewpoints of EFL teachers.

The term "teacher immunity" describes the capacity of educators to adapt, manage, and thrive amid these challenges. This study seeks to clarify the complexities surrounding teacher immunity by examining the experiences, perceptions, and coping mechanisms used by EFL teachers in the Iranian educational context. Understanding teacher immunity is crucial for improving teachers' resilience, well-being, and overall job satisfaction. A resilient and immune teaching staff can cultivate a positive learning environment, enhancing student outcomes.

Despite extensive research on student motivation, the literature clearly lacks information about instructor motivation. Given that teachers' passion and dedication directly affect their students' learning experiences and results, it is imperative to understand and manage the motivational elements that drive them. This study explores the concept of "language teacher immunity," initially introduced by Hiver (2015), as a protective mechanism to assist teachers in handling challenging classroom situations.

The framework provided by Hiver (2015) conceptualizes teacher immunity as a self-organizing system consisting of four stages. This dynamic and intricate system involves various interacting components that enable teachers to adapt and respond effectively to challenges. It evolves through the teachers' prior experiences, reflecting the idea that educators often draw on their past learning to develop new strategies for addressing current issues. This self-organizing nature underscores the complexity and adaptability of teacher immunity, highlighting its significance in fostering resilience and sustained motivation among educators.

This study aims to provide refined perspectives that may guide strategies for upholding and enhancing educator motivation, ultimately cultivating a robust and flexible language education community. Understanding the interplay between teacher immunity, potential selves, and motivation will help in designing effective support networks and professional development initiatives, benefiting both teachers and students in the Iranian EFL context.

English as a Foreign Language (EFL) teachers in Iran face numerous challenges that significantly impact their well-being and resilience, including stress, burnout, resistance to change, and routine-induced patterns. Despite the critical role of teacher immunity and self-organization in navigating these challenges, there is a notable gap in the literature regarding the exploration of negative experiences within this context. This study aims to address several key issues: the lack of understanding of EFL teachers' perceptions, unexplored coping behaviors, insufficient insight into realignment strategies, and limited knowledge of long-term adaptive mechanisms. Additionally, the study seeks to

amplify the voices of EFL teachers, providing a more comprehensive picture of their experiences within the self-organizing system and contributing to the broader body of knowledge on teacher immunity theory.

Furthermore, the study will examine the interplay between negative experiences and their impact on teaching practices, individual differences in coping strategies, and the often-neglected institutional and systemic influences. By incorporating diverse perspectives, including those related to gender, race, and socioeconomic background, the research aims to ensure a more holistic understanding of teacher immunity. Finally, the study will explore the impact of technology-induced challenges on teacher immunity and the potential adaptations of the self-organizing system in the digital realm. Addressing these issues is crucial for advancing our understanding of teachers' adaptability and resilience, ultimately supporting the development of resilient teaching communities and enhancing professional development in the dynamic field of language education.

The primary objectives of this study are to develop a comprehensive model of teacher immunity among Iranian EFL teachers using grounded theory and to validate this proposed model through Structural Equation Modelling (SEM). Specifically, the study aims to identify and understand the negative experiences faced by these teachers, such as stress, burnout, and resistance to change, and to explore their coping behaviors and realignment strategies. By investigating the interplay between these challenges and the teachers' adaptive mechanisms, the study seeks to provide a holistic understanding of teacher immunity. Additionally, the research aims to incorporate diverse perspectives, including gender, race, and socioeconomic background, to ensure a well-rounded representation of the factors influencing teacher immunity. Ultimately, this study aspires to contribute valuable insights for professional development and support the creation of resilient teaching communities in the dynamic field of language education.

According to these objectives, the research questions of this study are:

1-Utilizing the grounded theory, what is the model of teacher immunity among Iranian EFL teachers?

2- To what extent does the Structural Equation Modelling (SEM) analysis confirm the validity and reliability of the proposed model of teacher immunity?

2. Review of Literature

Teacher immunity is a relatively novel concept in educational research, conceptualized to describe the ability of teachers to adapt, manage, and thrive amidst the various challenges inherent in their profession. This concept, as introduced by Hiver (2015), portrays teacher immunity as a self-organizing system wherein teachers draw on their past experiences to develop new strategies for current challenges, thus maintaining resilience and motivation.

Hiver (2015) initially proposed a framework for understanding teacher immunity, conceptualizing it as a dynamic and intricate system comprising four stages. This self-organizing system emphasizes the complexity and adaptability required by teachers to navigate the multifaceted challenges in their profession. It suggests that teachers' responses to stressors are not static but evolve based on prior experiences, thus forming a continuous loop of adaptation and resilience.

The significance of teacher immunity lies in its impact on teachers' well-being, job satisfaction, and, ultimately, student outcomes. Resilient teachers are more likely to foster positive learning environments, which enhance student engagement and achievement (Day & Gu, 2014). Understanding and enhancing teacher immunity can lead to more effective professional development programs, support networks, and policies aimed at reducing teacher burnout and improving retention rates.

Several studies have identified various factors that influence teacher immunity. Kelchtermans (2005) highlights the role of personal beliefs and identity in shaping teachers' responses to challenges. Teachers' perceptions of their professional identity and their sense of self-efficacy are crucial components that determine their resilience and adaptability (Geving, 2007). Moreover, the institutional and socio-cultural context in which teachers operate significantly impacts their immunity (O'Connor, 2008). In the context of Iran, cultural and educational norms create unique stressors for EFL teachers, necessitating a tailored approach to understanding and enhancing teacher immunity.

Motivation plays a crucial role in the development of teacher immunity. According to Hiver and Dörnyei (2015), motivation is intertwined with the concept of teacher immunity, as it influences how teachers perceive and respond to challenges. Boo, Dörnyei and Ryan (2015) further elucidate that motivation is affected by the dynamic interplay between teachers' personal goals, professional identities, and contextual factors. Understanding these motivational aspects is essential for developing strategies to bolster teacher immunity.

Effective coping mechanisms and realignment strategies are pivotal for maintaining teacher immunity. Eser Ordem (2017) emphasizes that ambiguities and conflicts in the classroom can negatively impact teachers' motivation, highlighting the need for robust coping strategies. Teachers who employ adaptive coping mechanisms, such as seeking social support and engaging in reflective practices, are better equipped to manage stress and sustain their motivation (Richards, Levesque-Bristol, & Templin, 2013).

Brown(2014) looks at significant historical occurrences and patterns, such as court rulings, legislative modifications, and societal upheavals, that have influenced language teacher immunity. The article also covers the impact of technology and globalization, along with other newly emerging difficulties and challenges facing language teachers today. This paper's key conclusion is that future research and practice will greatly benefit from the knowledge of the historical development of language instructor immunity. The study urges more research into the changing difficulties faced by language instructors and the creation of practical solutions to safeguard their welfare.

Garcia (2018) synthesizes the results of numerous investigations in its thorough review of the literature on language instructor immunity. The impact of public attitudes, professional associations, and legislative frameworks on language teacher immunity are only a few of the important issues and trends that the author highlights in the literature. The review makes recommendations for future research in this area and emphasizes the need for additional study to fill up knowledge gaps. This paper's fundamental conclusion is that, due to a variety of circumstances, language instructor immunity is a complicated and diverse issue. The systematic review emphasizes how crucial it is to conduct more research in order to improve our knowledge of language instructors' immunity and provide evidence-based support plans for them.

Despite the growing interest in teacher immunity, there remains a significant gap in understanding the negative experiences of teachers and their impact on teaching practices. Existing research often overlooks the nuanced coping behaviors and realignment strategies that teachers employ in response to these challenges. Additionally, there is limited knowledge of how institutional and systemic factors influence teacher immunity, particularly in diverse cultural contexts like Iran.

In conclusion, teacher immunity is a multifaceted and dynamic concept that plays a critical role in shaping teachers' resilience and effectiveness. The existing literature underscores the importance of personal beliefs, identity, motivation, and coping mechanisms in developing teacher immunity. However, further research is needed to explore the negative experiences of teachers, the impact of institutional factors, and the role of diverse perspectives in understanding and enhancing teacher immunity. By addressing these gaps, we can develop more comprehensive and effective strategies to support teachers in their professional journeys.

3. METHOD

3.1. Design of the Study

The researcher employed a quantitative design for several compelling reasons. Firstly, the primary goal of the study was to validate the findings and generalize the themes of teacher immunity, as proposed by Samimi et al. (2024), to a broader population. Quantitative research, with its emphasis on numerical data and statistical analysis, is particularly well-suited for testing hypotheses and establishing the validity of models across larger and more diverse groups.

Furthermore, the quantitative approach allows for the collection of large-scale data, which enhances the study's external validity. This means that the findings can be more confidently extended to a wider population beyond the sample used in the study. Additionally, quantitative methods provide a level of precision and objectivity that is essential for making definitive conclusions about the relationships between variables.

3.2. Participants and Setting

To ensure the reliability and validity of the research instrument, a pilot study was conducted prior to the main data collection. The pilot study involved a sample of 100 Iranian EFL teachers, selected using convenience sampling from various regions, including cities such as Tehran, Shiraz, Bandar Abbas, and Yazd. This approach ensured a geographically diverse representation while testing the questionnaire’s applicability in different educational contexts.

The primary objective of the pilot study was to evaluate the clarity, reliability, and relevance of the questionnaire items. Participants provided feedback on the comprehensibility and ease of responding to the questions. Statistical analyses were conducted using SPSS software to calculate the internal consistency of the questionnaire. Cronbach's alpha values ranged between 0.709 and 0.916, indicating satisfactory reliability for the various subscales.

Additionally, exploratory factor analysis (EFA) was performed to assess the construct validity of the instrument. The results of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity confirmed the appropriateness of the data for factor analysis. Items that did not meet the threshold for factor loadings were revised or removed to ensure precision.

The pilot study provided critical insights into the questionnaire's structure and allowed for necessary adjustments to improve its accuracy and effectiveness. These refinements ensured that the instrument was both reliable and robust for use in the main study.

The researcher reached out to possible volunteers in the EFL teaching community by posting invitations to participate in the study on LinkedIn. Interested parties were invited to indicate their voluntary enrollment by expressing interest in participation after being informed about the study's goals, methods, and confidentiality precautions. By maintaining a gender balance, it was possible to eliminate potential biases related to gender-specific perceptions of teacher immunity and assure fair representation. In addition, the participants' ages ranged from 30 to 45, which was selected to include people in comparable career stages and improve response comparability by reducing age and experience-related confounding variables.

Table 1

The Frequency of the Participant's Gender, Level, and Child in Pilot Study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Gender**				
	Male	51	51	51	51
	Female	49	49	49	100
	Level				
	B.A	48	48	48	48
	M.A	52	52	52	100
	Child				
	Having child	58	58	58	58
	Do not have a child	42	42	42	100
	Total	100	100	100	

For the main study, 384 volunteers, representing a wide range of EFL educators in different parts of Iran, were recruited. To ensure a diversity of opinions, experiences, and demographics, convenience sampling was used in the participant selection process. Participants ranged in age from thirty to forty-five, representing a critical juncture in their professional lives. The study was carried out in the context of teaching English as a foreign language (EFL) in Iran, a field with its potential and challenges. Iranian EFL teachers work in a complicated educational system that is shaped by social conventions, cultural standards, and governmental regulations. These teachers work in a variety of educational settings, meeting the requirements of pupils with varying socioeconomic origins and language proficiency. Furthermore, low pay, a heavy workload, and few possibilities for professional growth are issues that Iranian EFL teachers frequently deal with. These issues may affect their sense of self as professionals and their general well-being.

The study's overall goal was to reflect the complex experiences and viewpoints of Iranian EFL teachers while acknowledging the many applications of teacher immunity in the larger framework of Iranian language instruction. The study aims to find insights that could guide actions and policies intended to promote and enhance teacher immunity in the Iranian EFL environment by carefully examining both participants and contexts.

Table 2

The Frequency of the Participant's Gender, Level, and Child in the Main Study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Gender**				
	Male	236	61.45	61.45	61.45
	Female	148	38.54	38.54	100
	Level				
	B.A	152	39.58	39.58	39.58
	M.A	232	60.41	60.41	100
	Child				
	Having child	264	68.75	68.75	68.75
	Do not have a child	120	31.25	31.25	100
	Total	384	100	100	

3.3.Instrument

According to the model that was prepared by Samimi et al.(2024), the researcher came up with seven broad topics for the test that included different facets of teacher immunity.

Table 3
Samimi et al.'s (2024) Model

	Themes	Subcategories
1	Supportive Work Environment	a. Colleague Support b. Administrator Support c. School Policy Contribution
2	Professional Development Opportunities	a. Access to Development b. Impact of Development c. Desire for More Development d. Adequacy of Current Opportunities
3	Work-Life Balance	a. Work-Life Balance Rating b. Personal Time Availability c. Work-Life Balance Challenges d. Difficulty Achieving Balance
4	Autonomy and Empowerment	a. Teaching Autonomy b. Impact of Autonomy c. Desire for More Autonomy d. Current Autonomy Level
5	Effective Communication	a. Communication Effectiveness b. Communication Impact on Stress c. Communication Improvement Opportunities d. Current Communication Quality
6	Job Satisfaction	a. Overall Job Satisfaction b. Factors Affecting Job Satisfaction c. Job Satisfaction Improvement d. Level of Job Satisfaction
7	Student Relationships	a. Student Relationship Quality b. Relationship Impact on Resilience c. Effort in Building Relationships d. Difficulty in Building Relationships
8	Personal Coping Strategies	a. Coping Strategy Effectiveness b. Coping Strategy Impact on Resilience c. Need for Additional Support d. Current Coping Strategy Effectiveness e. Difficulty Finding Effective Coping Strategies

The questionnaire was designed to assess teacher resilience among Iranian EFL instructors. It aimed to evaluate various aspects of teacher immunity related to the identified themes, with a focus on supportive work environments, professional development opportunities, work-life balance, autonomy and empowerment, effective communication, job satisfaction, student relationships, and personal coping strategies.

The questionnaire was divided into two parts: one for demographic data and the other for 32 well-constructed questions. The questionnaire was designed in English to ensure consistency with the participants' profession, relevance to the study's context, clarity and precision, avoiding translation bias, standardization, and professional development.

The supportive work environment (SWE) provided resources, encouragement, and a sense of belonging, while professional development opportunities enhanced teachers' confidence and competence in handling challenges. Work-life balance (WLB) was crucial for maintaining resilience and job satisfaction. Autonomy and empowerment (AE) enabled teachers to make meaningful decisions, while effective communication fostered collaboration and understanding among stakeholders. Job satisfaction (JS) was essential for teacher resilience, as it stemmed from recognition, appreciation, and opportunities for growth and advancement.

Student relationships (SR) were also important for teacher resilience, as strong teacher-student relationships contribute to a positive classroom environment and enhance teachers' ability to navigate challenges effectively. Personal coping strategies (PCS) were also essential for building and maintaining teacher resilience.

The questionnaire was designed in Persian, the mother tongue of the participants, to maximize the accuracy and clarity of responses. This method improved the reliability and authenticity of the information acquired by encouraging thoughtful responses and greater knowledge of the questions.

In conclusion, the questionnaire was designed to assess teacher resilience among Iranian EFL instructors, focusing on factors such as supportive work environments, professional development opportunities, work-life balance, autonomy and empowerment, effective communication, job satisfaction, student relationships, and personal coping strategies.

3.4.Data Collection Procedures

In this study, the researcher utilized the results of the grounded theory analysis previously conducted and reported by Samimi et al. (2024). That earlier study employed a constructivist grounded theory methodology to explore the factors influencing teacher immunity among Iranian EFL teachers. Through comprehensive interviews and systematic analysis using MAXQDA software, the previous study identified key themes and constructs such as professional development, work-life balance, coping strategies, and effective communication.

Building on these findings, this research integrated the identified themes into the development of a quantitative framework. The constructs from the grounded theory analysis were operationalized into measurable variables for the current study's Structural Equation Modeling (SEM). This integration ensured that the proposed model was firmly rooted in empirical data from the qualitative phase, thereby enhancing its relevance and validity for exploring teacher immunity in the Iranian EFL context.

Participants were given a thorough briefing outlining the goals of the study, the importance of their involvement, and the ethical issues involved prior to the collection of data. Participants' anonymity and privacy were emphasized, and guarantees about the ethical processing of data were given.

Participants were offered the ability to leave the study at any moment without facing any repercussions, and they were reassured that their participation was entirely voluntary. Participants were also told that the results of the study would not be shared with any parties and would only be used for academic purposes.

To guarantee uniformity and correctness in responses, precise instructions were given for filling out the questionnaire. The questionnaire had demographic inquiries as well as questions about teacher immunity factors that were carefully chosen in light of the study's identified themes and pertinent variables. The questionnaire was distributed in an online format, and the participants could answer it in 30 minutes.

The study aims to preserve the integrity of its findings and add significant insights to the knowledge of teacher immunity factors in the Iranian EFL environment by placing a high priority on transparency, ethical conduct, and scientific rigor. The study's adherence to ethical principles and meticulous methodology guaranteed the validity and trustworthiness of its findings, even with the use of convenience sampling.

Careful efforts were made to elicit ideas from a broad and diverse sample of 384 participants in different Iranian cities throughout this crucial phase of the project in the main study. During the 2020–2021 academic year, during the fall and winter semesters, the researcher coordinated the online distribution of the well-designed questionnaire. This well-thought-out method allowed respondents to interact with the survey whenever it was most convenient for them, regardless of where they were in the world.

Prior to commencing the questionnaire process, participants were provided with extensive guidelines aimed at guaranteeing a consistent and systematic method of gathering responses. These guidelines unambiguously guaranteed the confidentiality and anonymity of participant responses while also outlining the study's educational purpose. This proactive measure attempted to foster trust and confidence among participants, which in turn encouraged open and sincere views on the topic at hand.

In addition, every individual was allotted a precise duration of half an hour to complete the questionnaire. This thoughtful scheduling of time demonstrated the researcher's dedication to honoring the time and efforts of participants while also streamlining the data-gathering procedure. The study aimed to extract complex and perceptive viewpoints from participants by giving them enough time to think about their responses. This enhanced the breadth and caliber of the information acquired.

3.5.Data Analysis Procedures

The study aimed to standardize a questionnaire for teacher immunity among Iranian EFL teachers, ensuring its dependability and reliability. The researcher used exploratory factor analysis (EFA) and Cronbach's alpha to analyze the data, revealing patterns and correlations between variables. Ethical issues were prioritized, with transparency, participant wellbeing, and privacy being top priorities.

The validation procedure, including reliability evaluation and exploratory factor analysis, ensured the accuracy of the questionnaire and provided confidence for interpretation. The content validity of the questionnaire was ensured through a systematic and rigorous process. First, the items were designed based on an extensive review of the literature and aligned with the model developed by Samimi et al. (2024). This model identified eight key components of teacher immunity, including supportive work environments, professional development opportunities, work-life balance, and personal coping strategies. To ensure these components were adequately represented, the initial questionnaire items were carefully formulated and mapped to the theoretical constructs.

To validate the content, the questionnaire underwent an expert review process. A panel of five specialists in language teaching, educational psychology, and research methodology evaluated the items for clarity, relevance, and comprehensiveness. These experts provided critical feedback, which was used to refine the questionnaire further, ensuring that it accurately reflected the constructs being measured.

Following the expert review, a pilot study was conducted with a sample of 100 Iranian EFL teachers selected from various regions to ensure contextual and cultural representation. During this phase, participants provided feedback on the clarity and relevance of the items. Statistical analyses, including Cronbach's alpha for internal consistency and exploratory factor analysis (EFA) for construct validity, were performed. The results indicated strong reliability and validity, with Cronbach's alpha values ranging from 0.709 to 0.916.

Additional statistical validation included the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. The high KMO value of 0.878 and a significant result in Bartlett's test ($p < 0.001$) confirmed the suitability of the data for factor analysis and reinforced the instrument's validity. Items that demonstrated low factor loadings or redundancy during the exploratory analysis were revised or removed to improve the precision of the questionnaire.

Lastly, to ensure accessibility and minimize linguistic biases, the questionnaire was translated into Persian, the native language of the participants. This step ensured that all participants fully understood the items, allowing them to provide accurate and thoughtful responses. Collectively, these measures ensured that the final instrument was reliable, comprehensive, and valid for assessing the multifaceted concept of teacher immunity among Iranian EFL teachers.

The methodological process demonstrated dedication to accuracy, openness, and moral behavior in the investigation of teacher immunity. The collected responses were input into SPSS version 26, providing a methodical approach to understanding participants' attitudes.

The researcher utilized various statistical techniques, including self-constructed questionnaires and descriptive statistics. An extensive model was created to depict the dynamic process of teacher immunity generation, capturing complex interactions that shape teachers' immunity in the classroom. Structural Equation Modeling (SEM) was used to validate this model, using mathematical methods to investigate and measure correlations between latent and observable variables.

The study used a quantitative, non-experimental, descriptive research design and implemented the numerical method of Partial Least Squares-SEM. The measurement model was assessed first, followed by the structural model as a model of graded modules. The normality assumption was met using skewness and kurtosis readings, ensuring data normality within the allowable range of +/- 1.96.

Smart PLS was the best technique for validating the teacher immunity model due to the non-parametric nature of the study's data. Multiple regression analysis and covariance-based structural equation modeling (CB-SEM) were not suitable for this inquiry. However, PLS-SEM is recommended for use in situations with large numbers of variables, lack of a normal distribution, small sample sizes, testing complex relationships involving multiple variables, multi-theoretical mixed models, predictive testing of theoretical frameworks, and exploratory research related to theory development.

4. RESULTS

The teacher immunity questionnaire consists of two portions. The initial six items gather information regarding occupation, educational degree, age, gender, current language proficiency level, and language learning background. The latter thirty-two items of the questionnaire pertain to the respondents' perception regarding the effectiveness of instructor immunity.

The second component was evaluated using a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5), to measure respondents' level of agreement with the propositions. The initial segment was evaluated based on the data collected regarding the attributes of the participants. Wigfield and Guthrie (1997) assessed the internal consistency reliability of the subscales (personal attributes, personal perceptions, and missing components).

The reliability estimates shown in Table 4 are within the range of .709 to .916, indicating a reasonable level of reliability. Hence, the dependability index of teacher immunity, as evaluated using Cronbach's alpha, is 0.83.

Table 4

Reliability Estimates

Subscale	N of Items	Reliability
personal characteristics	6	.85
personal perceptions	32	.83
missing factors	1	.77

The questionnaire and its scales achieved the necessary reliability values, Cronbach's alpha (greater than 0.70), as shown in Table 5. It is important to note that the final questionnaire only included 32 items because one of the items in the fourth scale had to be eliminated. After all, it did not meet the necessary criterion value.

Table 5

Item-Total Statistics for Total Factors

Items	N of Items	Cronbach's Alpha
SWE	3	.916
PD	4	.798
WLB	4	.834
AE	4	.709
EC	4	.813
JS	4	.819
SR	4	.906
PCS	5	.876
Cronbach's Alpha	32	.83

4.1. Checking the Construct Validity of the Questionnaire through Exploratory Factor Analysis

Ary et al. (2013, p. 291) define construct validity as the degree to which a test accurately measures the specific psychological construct it is designed to assess. When evaluating the suitability of data for factor analysis, it is important to evaluate two factors: the adequacy of the sample size and the robustness of the correlations between the items. When it comes to sample size, Nunnally (1978) recommends having ten examples per item. However, Tabachnick and Fidell (2007) consider a ratio of 5 to 1 to be suitable. Verifying the precision of the inter-correlations among the elements is an additional assumption in this stage. To resolve this matter, it is necessary to examine the correlation matrix generated by the SPSS software and identify coefficients that exceed 0.3. If there are numerous variables, factor analysis is appropriate to be conducted.

1.With the exception of one item that was removed, the instrument used in this study demonstrated a sufficient number of coefficients greater than 0.3 in relation to this particular issue. Pallant (2007) suggests that Bartlett's sphericity test and the KMO sample size measure can be used to assess the factorability of the data, which refers to the number of various ways the data can be divided into groups. The results of the KMO and Bartlett's Test can be found in Table 6, indicating a statistically significant correlation. Therefore, it can be inferred that the items exhibit statistical dissimilarity from each other and are notably distinct from the observed values. The researcher has provided evidence that the matrix is factorable, as demonstrated by the correlation matrix derived from the KMO and Bartlett's Test.

Table 6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.878
Bartlett's Test of Sphericity	Approx. Chi-Square	5866.214

	df	305
	Sig.	.000

The KMO and the significance of Bartlett's test of sphericity for this instrument are deemed good based on the provided information. The assessment of data normalcy is conducted using the KMO (Kurtosis Module of Oscillation). If the value exceeds 0.6, it is considered highly common. A value below 0.5 is considered abnormal. The KMO value was greater than 0.6 at 0.878, indicating high sampling adequacy. Additionally, Bartlett's test showed a significance level of less than 0.5 (Sig = .000), suggesting that the variables in the analysis were significantly correlated. The results validated the appropriateness of the information provided in the questionnaire.

2. The subsequent phase involves the extraction of factors. One of the various methods commonly used to acquire components is the most popular. An example of the study's utilization of principle component analysis is evident. It should be noted that, as previously indicated, one of the items was chosen to be eliminated from the 33 items since it did not meet the standards of the first phase. Consequently, a total of 32 components underwent principal component analysis. Pallant (2007) suggests three methods for determining the appropriate number of elements to retain in the model. It is important to note that the initial component of the equation is not a rule but rather a method to ascertain if the number of elements is accurate. It is important to note that eigenvalues provide information on the multiplicity of a number in the factors. In this example, the eigenvalue 1.0 is equal to 1. The principal component analysis of this investigation yielded six variables with eigenvalues greater than or equal to 1.0. According to the data shown in Table 7, these six factors accounted for 67.99 percent of the variance.

The findings of the Total Variance are presented in Table 7. The text explains how the loading results of items indicate the correlation between all items, including both positively and negatively phrased ones. It also confirms the presence of a substantial correlation among components. Overall, the results indicate a clear consensus among the participants about their perception of the teacher immunity questionnaire. The data shows a gradual decrease in the replies, ranging from 7.3 to 0.103.

Table 7
Total Variance Explained

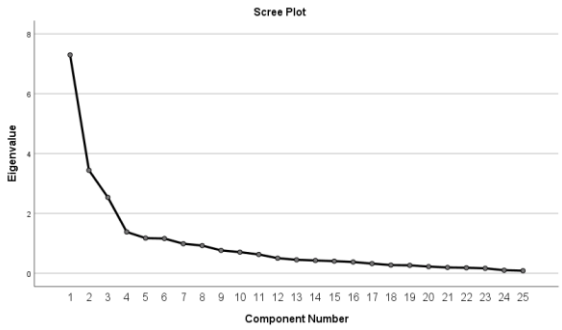
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.3	29.2	29.2	7.3	29.2	29.2
2	3.442	13.767	42.967	3.442	13.767	42.968
3	2.539	10.157	53.124	2.539	10.157	53.125
4	1.382	5.528	58.653	1.382	5.528	58.653
5	1.175	4.701	63.354	1.175	4.701	63.354
6	1.161	4.644	67.997	1.161	4.644	67.997
7	0.988	3.951	71.948			
8	0.925	3.702	75.65			
9	0.765	3.059	78.709			
10	0.707	2.828	81.537			
11	0.63	2.518	84.055			
12	0.505	2.02	86.075			
13	0.451	1.805	87.88			
14	0.428	1.712	89.592			
15	0.405	1.619	91.211			
16	0.378	0.513	91.724			
17	0.323	0.294	92.018			
18	0.274	0.097	92.115			
19	0.265	0.059	92.174			

20	0.224	0.895	93.069
21	0.194	0.777	93.846
22	0.184	0.737	94.583
23	0.165	0.662	95.245
24	0.103	0.412	95.657
25	0.085	0.347	96.004
26	0.323	0.294	96.298
27	0.274	0.097	96.395
28	0.265	0.559	96.954
29	0.224	0.895	97.849
30	0.194	0.777	98.626
31	0.165	0.662	99.288
32	0.103	0.712	100

Figure 1 displays the results of factor loading. It reflects participants' high interest and positive perceptions of the teacher immunity questionnaire at the high end of the plot compared to their perceptions of the teacher immunity questionnaire at the low end.

Figure 1

The Scree Plot of the Factors of the Study



Horn's parallel analysis is a method used to validate the results obtained from the techniques above (Horn, 1965). The researcher employed a Monte Carlo technique that involves comparing the magnitudes of the eigenvalues with those of a randomly generated dataset of equivalent dimensions. (Pallant, 2007). The eigenvalues of the retained factors exceed those obtained from the random data set. Following the completion of the Monte Carlo simulation, the findings above were achieved.

Table 8

Actual Eigenvalues and their Corresponding Values from Parallel Analysis

Component Number	Eigenvalue from PCA	Criterion Value from Parallel Analysis	Decision
1	7.300	1.4971	Accept
2	3.442	1.4226	Accept
3	2.539	1.3663	Accept
4	1.382	1.3139	Accept
5	1.175	1.0697	Accept
6	1.161	1.0255	Accept

Since Table 8 shows that the actual eigenvalues of the six factors were higher than the criteria values from the parallel analysis, the results supported the findings of the first stage regarding the retention of these six factors.

3 .Rotating the factors (methods of arranging the data) to ensure that each item has the same weight for each component is the third and last phase in the data analysis process. The outcomes of factor rotation and item loadings are summarized in Table 9.

Table 9
Rotated Component Matrix

	1	2	3	4	5	6
Q13	.878					
Q14	.859					
Q12	.816					
Q15	.813					
Q11	.784					
Q16	.778					
Q10	.740					
Q17	.599				-.539	
Q18	.570				-.546	
Q26	.568					
Q30	.562					
Q7		.816				
Q1		.777				
Q5		.776				
Q4		.736				
Q6		.732				
Q27		.712				
Q32		.698				
Q25			.826			
Q21			.817			
Q22			.750			
Q20			.628			
Q24			.572	.533		
Q23			.570			
Q28			.562			
Q29			.551			
Q2				.650		
Q3				.645		
Q8					.637	
Q9	.521				.555	
Q19						.807
Q31						.795

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

As noted in Table 9, the items in this questionnaire all had nearly the same weight on the same thing, which means that the way the researcher asked them, the way the researcher measured it, and the items themselves were correct. In general, the results from this pilot study supported the reliability and validity of the questionnaire that the researchers themselves designed.

4.2. Confirmatory Factor Analysis (CFA) Results

CFA was employed in conjunction with SEM to determine how the observed variables or indicators assess the four components. A model of teacher immunity variables was developed through interviews and exploratory factor analysis. This method was employed to assess the validity of this model. The acronym CFA denotes Confirmatory Factor Analysis. It is a technique used to determine the accuracy of the models used to describe a certain data collection. A model is considered a good fit when it exhibits a high degree of similarity to the data. This study evaluated eight candidate models for data description using the computer software Smart PLS (Adelheid & Penny, 2012, p. 127; Jöreskog & Sörbom, 2006).

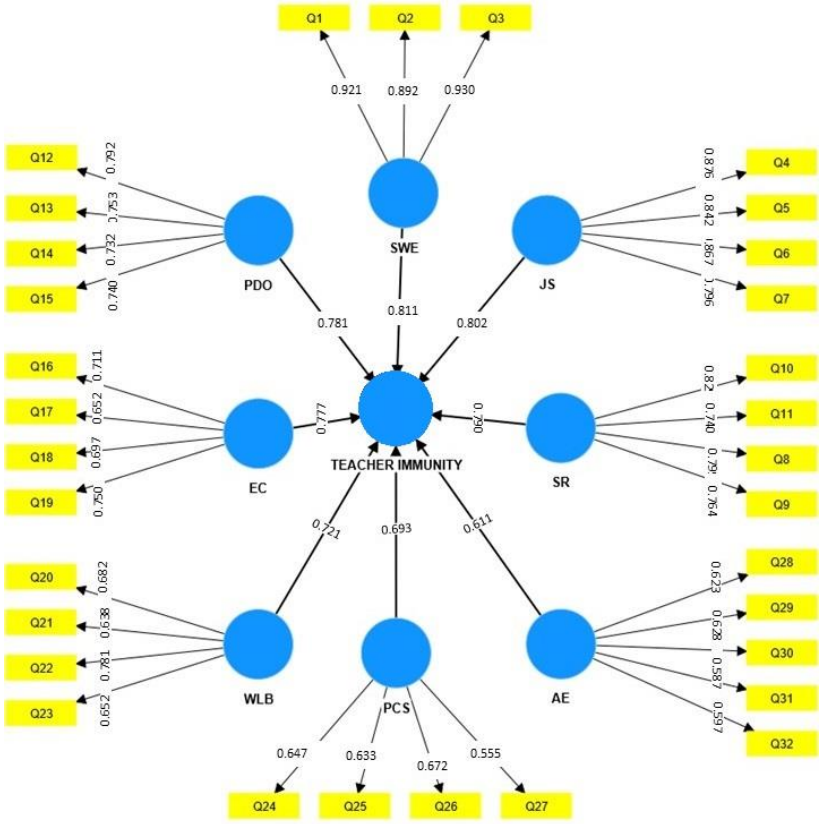
The study aimed to assess the impact of gender-related non-response bias on the reliability and applicability of research findings. Using SPSS 26, an independent sample T-test was conducted on each sample to examine potential differences between male and female respondents. The results showed no noticeable gender differences, indicating that non-response bias is unlikely to impact the study's results significantly. This empirical evidence strengthens the research design, increasing confidence in the representativeness of the collected data. The lack of significant gender differences ensures minimal potential bias, ensuring the study's internal validity and reliability. This detailed analysis contributes to the academic discussion on language learning and evaluation.

4.3. Structural Model Assessment

This study used SmartPLS 4 to build and analyze the model, and the sample size of bootstrapping was 5000 to calculate the significance of paths. Figure 2 depicts the research model's findings.

Figure 2

Initial path model



This study aims to validate a model for understanding the complexities of elements affecting the immunity of EFL teachers. The validation process involves evaluating convergent, discriminant, and content validity. Convergent validity is crucial for confirming the model's accuracy in assessing the underlying concepts. The questionnaire used in the study was carefully designed and refined after comprehensive literature research, and preliminary testing and interviews were conducted to improve its effectiveness.

Table 10 shows the Average Variance Extracted (AVE) values for the measurement model were used to evaluate convergent validity. AVE values greater than 0.5 confirmed the model's ability to measure the underlying elements affecting EFL teachers' immunity accurately. Discriminant validity, on the other hand, measures the uniqueness of each latent variable in the model. The model's reliability was evaluated using Cronbach's Alpha and Composite Reliability (CR) values. Values exceeding the 0.7 criterion confirmed the model's dependability.

The conclusion of these evaluations emphasizes the general sufficiency, dependability, and accuracy of the measuring methodology used in this work. The convergence of data from content validity, convergent validity, discriminant validity, and reliability measures strengthens the scholarly rigor used in the research design and execution. The findings contribute to the academic discussion on language evaluation by establishing a strong and validated measuring model.

Table 10

AVE, CR, and Cronbach's Alpha

	Items	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)

Supportive Work Environment (SWE)	3	0.842	0.866	0.882	0.723
Job Satisfaction (JS)	4	0.709	0.726	0.872	0.773
Student Relationships (SR)	4	0.919	0.938	0.932	0.708
Professional Development Opportunities (PDO)	4	0.804	0.839	0.855	0.768
Effective Communication (EC)	4	0.821	0.854	0.842	0792
Work-Life Balance (WLB)	4	0.834	0.867	0.839	0.735
Personal Coping Strategies (PCS)	5	0.839	0.891	0.829	0.761
Autonomy and Empowerment (AE)	4	0.798	0.867	0.871	0.748

The outer model of the proposed model is evaluated for its dependability and accuracy, focusing on convergent and discriminant validity, as well as construct reliability. Convergent validity ensures that indicators designed to measure a specific construct align appropriately, while discriminant validity supports the uniqueness of different constructs within the model. The study emphasizes the evaluation of convergent validity by analyzing the Average Variance Extracted (AVE) values, which are greater than 0.7, indicating strong convergent validity.

Reliability, measured by composite reliability scores, indicates the consistency and dependability of latent variables. All constructs have a composite reliability rate greater than 0.70, highlighting the reliability of all constructs in the model. These assessments align with accepted methodological norms, enhancing the scholarly rigor of the study's measurement model.

The internal model, also known as the structural model, is assessed using the t-statistical value of the route coefficient test and the R-square, which indicate the dependability of indicators for the dependent construct. A higher R-square value indicates a more accurate prediction model for the recommended research model.

The thorough validation of both outer and inner models confirms the dependability and accuracy of the measurement and structural elements of the proposed model. Table 11 shows the Fornell-Larcker Discriminant Validity analysis, which is an important tool for evaluating the uniqueness of latent variables in the measurement model. The results of the Fornell-Larcker Discriminant Validity analysis confirm that the model can accurately differentiate across latent variables, as indicated by the consistently higher square root of Average Variance Extracted (AVE) compared to correlation coefficients.

Table 11

Fornell-Larcker Discriminant Validity

	(SWE)	(JS)	(SR)	(PDO)	(EC)	(WLB)	(PCS)	(AE)
(SWE)	**0.850**							
(JS)	0.312	**0.879**						
(SR)	0.276	0.486	**0.841**					
(PDO)	0.356	0.222	0.274	**0.876**				
(EC)	0.375	0.481	0.491	0.298	**0.889**			
(WLB)	0.395	0.462	0.482	0.382	0.411	**0.812**		
(PCS)	0.361	0.421	0.219	0.342	0.301	0.281	**0.837**	
(AE)	0.391	0.365	0.415	0.357	0.382	0.215	0.211	**0.842**

Note: The values bolded and red on the diagonal are the square root of AVE.

Table 12

Cross-loading

	(SWE)	(JS)	(SR)	(PDO)	(EC)	(WLB)	(PCS)	(AE)
Q1	**0.769**	0.113	0.113	0.319	0.155	0.19	0.279	0.116
Q2	**0.704**	0.19	0.155	0.077	0.436	0.208	0.343	0.125
Q3	**0.786**	0.208	0.159	0.194	0.388	0.155	0.261	0.279

Q4	0.319	**0.725**	0.241	0.304	0.453	0.436	0.256	0.343
Q5	0.077	**0.899**	0.217	0.316	0.478	0.388	0.207	0.261
Q6	0.194	**0.813**	0.273	0.25	0.421	0.453	0.209	0.256
Q7	0.304	**0.834**	0.21	0.271	0.155	0.478	0.313	0.207
Q8	0.288	0.113	**0.712**	0.203	0.213	0.421	0.084	0.211
Q9	0.264	0.155	**0.978**	0.19	0.255	0.19	0.129	0.287
Q10	0.202	0.436	**0.781**	0.218	0.226	0.208	0.279	0.116
Q11	0.237	0.388	**0.778**	0.219	0.245	0.288	0.343	0.125
Q12	0.213	0.453	0.279	**0.770**	0.241	0.264	0.261	0.287
Q13	0.255	0.478	0.343	**0.786**	0.15	0.202	0.256	0.290
Q14	0.226	0.421	0.261	**0.834**	0.127	0.237	0.207	0.261
Q15	0.245	0.349	0.256	**0.779**	0.116	0.213	0.209	0.270
Q16	0.241	0.384	0.207	0.207	**0.779**	0.255	0.313	0.232
Q17	0.15	0.185	0.209	0.27	**0.770**	0.226	0.084	0.287
Q18	0.127	0.088	0.313	0.264	**0.769**	0.245	0.129	0.287
Q19	0.116	0.101	0.084	0.202	**0.899**	0.288	0.143	0.290
Q20	0.125	0.077	0.129	0.237	0.19	**0.725**	0.261	0.288
Q21	0.279	0.128	0.143	0.213	0.208	**0.899**	0.228	0.264
Q22	0.343	0.154	0.261	0.255	0.155	**0.813**	0.313	0.202
Q23	0.261	0.204	0.228	0.226	0.436	**0.834**	0.084	0.237
Q24	0.256	0.25	0.267	0.113	0.388	0.319	**0.769**	0.213
Q25	0.207	0.069	0.092	0.19	0.453	0.077	**0.899**	0.255
Q26	0.211	0.194	0.319	0.208	0.478	0.194	**0.800**	0.226
Q27	0.287	0.304	0.077	0.155	0.421	0.304	**0.790**	0.245
Q28	0.290	0.288	0.194	0.436	0.19	0.316	0.288	**0.834**
Q29	0.261	0.264	0.304	0.388	0.208	0.319	0.264	**0.779**
Q30	0.270	0.202	0.316	0.453	0.155	0.077	0.202	**0.770**
Q31	0.232	0.237	0.319	0.478	0.436	0.194	0.237	**0.769**
Q32	0.287	0.213	0.077	0.421	0.388	0.304	0.213	**0.899**

This study focuses on assessing discriminant validity in a measurement model, ensuring each latent variable has a distinct identity within the framework. Table 12 shows the Cross-loading values, and Table 13 shows the Heterotrait-Monotrait (HTMT) ratios are examined to provide strong evidence for the model's discriminant validity. Cross-loading values show a strong discriminant validity, as factor loadings within each latent variable consistently exceed the loadings across different factors. HTMT ratios below the standard threshold of 0.47 indicate strong discriminant validity, confirming the model's capacity to distinguish across latent components. The comprehensive analysis of both cross-loading values and HTMT ratios confirms the robust discriminant validity present in the measurement model, enhancing the methodological rigor of the study and providing detailed insights into the unique characteristics of hidden variables and their corresponding observed variables within the teacher immunity framework. The rigorous methodology employed in this study enhances the reliability and validity of the assessment model used to capture the intricacies of factors impacting EFL teachers' immunity.

Table 13
HTMT

	(AE)	(SWE)	(JS)	(SR)	(PDO)	(EC)	(WLB)
(SWE)	0.499						
(JS)	0.485	0.496					
(SR)	0.461	0.463	0.486				
(PDO)	0.411	0.417	0.422	0.474			
(EC)	0.392	0.402	0.395	0.422	0.439		
(WLB)	0.356	0.394	0.356	0.398	0.401	0.421	

(PCS)	0.329	0.351	0.302	0.369	0.303	0.307	0.411

The study model's stability and reliability are crucial for accurate model estimates. Table 14 shows that the Variance Inflation Factor (VIF) which is a key indicator for assessing multicollinearity, which can affect the model's accuracy. VIF values, which measure the variance of an estimated regression coefficient, are essential for identifying potential covariance problems. VIF values below five are considered to be the absence of significant correlation issues. The VIF values obtained from SmartPLS 4 software confirm the model's ability to withstand multicollinearity. The critical evaluation ensures that all VIF values consistently remain below the stated level of 5, confirming the model's reliability and stability. This widespread adherence to the VIF threshold demonstrates the model's strength and resistance to multicollinearity, ensuring its applicability and generalizability, especially in teacher immunity settings. This thorough evaluation enhances the academic credibility of the research, ensuring the model's reliability in accurately representing the complex dynamics of teacher immunity.

Table 14

Path Coefficient Results

	VIF
SWE -> Teacher Immunity	1.017
JS -> Teacher Immunity	1.037
SR -> Teacher Immunity	1.317
PDO -> Teacher Immunity	1.294
EC -> Teacher Immunity	1.637
WLB -> Teacher Immunity	1.118
PCS -> Teacher Immunity	1.457
AE -> Teacher Immunity	1.237

The Inner Model, also known as the structural model, is a crucial step in confirming or disproving hypotheses. This comprehensive analysis considers factors such as R-square output, parameter coefficients, T-statistics, and p-values, which determine whether a hypothesis should be accepted or rejected. The R-square output shows the proportion of variance in the dependent construct that is explained by the independent constructs. At the same time, parameter coefficients represent the magnitude and direction of the connections between constructs. T-statistics measure the precision of the estimated coefficients, with values greater than 1.96 indicating statistical significance. P-values provide additional information to T-statistics, with a significance criterion of 0.05 (5%), to determine if hypotheses are acceptable or should be rejected. The experiment used the Smart PLS program and bootstrapping technique to create samples from the dataset. The significant criteria included a T-statistic of more than 1.96, a positive beta coefficient, and a significance threshold of 0.05 (5%). Table 15 provides a comprehensive summary of the results of hypothesis testing and emphasizes the scholarly rigor that supports this inquiry.

Table 15

Path Coefficient Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Results
JS -> SWE	0.199	0.199	0.062	3.215	0.000	Positive and significant
SR -> SWE	0.102	0.104	0.057	1.973	0.000	Positive and significant

PDO -> SWE	0.46	0.462	0.045	10.202	0.000	Positive and significant
EC -> SWE	0.284	0.292	0.054	5.277	0.000	Positive and significant
WLB -> SWE	0.096	0.1	0.048	2.014	0.000	Positive and significant
PCS -> SWE	0.112	0.115	0.061	3.205	0.000	Positive and significant
AE -> SWE	0.429	0.430	0.059	1.913	0.000	Positive and significant
SR -> JS	0.327	0.328	0.042	10.222	0.000	Positive and significant
PDO -> JS	0.119	0.120	0.058	5.237	0.000	Positive and significant
EC -> JS	0.259	0.259	0.043	2.044	0.000	Positive and significant
WLB -> JS	0.422	0.435	0.067	3.255	0.000	Positive and significant
PCS -> JS	0.320	0.334	0.054	1.963	0.000	Positive and significant
AE -> JS	0.374	0.380	0.046	10.272	0.000	Positive and significant
PDO -> SR	0.391	0.391	0.055	5.287	0.000	Positive and significant
EC -> SR	0.381	0.390	0.040	2.094	0.000	Positive and significant
WLB -> SR	0.268	0.270	0.012	3.210	0.000	Positive and significant
PCS -> SR	0.276	0.276	0.097	1.972	0.000	Positive and significant
AE -> SR	0.246	0.255	0.025	10.204	0.000	Positive and significant
EC -> PDO	0.113	0.120	0.084	5.276	0.000	Positive and significant
WLB -> PDO	0.103	0.103	0.038	2.018	0.000	Positive and significant
PCS -> PDO	0.185	0.185	0.065	3.211	0.000	Positive and significant
AE -> PDO	0.111	0.122	0.057	1.973	0.000	Positive and significant
WLB -> EC	0.372	0.375	0.046	10.205	0.000	Positive and significant
PCS -> EC	0.121	0.125	0.050	5.277	0.000	Positive and significant
AE -> EC	0.109	00110	0.042	2.019	0.000	Positive and significant
PCS -> WLB	0.362	0.362	0.061	3.210	0.000	Positive and significant
AE -> WLB	0.281	0.290	0.053	1.978	0.000	Positive and significant
PCS -> AE	0.296	0.290	0.047	10.262	0.000	Positive and significant

The study evaluates the structural model of teacher immunity among Iranian EFL teachers using various statistical methods. The results shown in Table 16 indicate that all variables have a favorable influence on teacher immunity, with a strong predictive ability (R^2 value of 0.455). The Q^2 value, calculated using Stone-Geisser's cross-validation method, indicates moderate prediction accuracy (0.262). The SRMR approach, used to assess the model's fit, yielded an SRMR value of 0.039, exceeding the critical threshold of 0.08. This indicates the model's adaptability and capacity to encompass various factors influencing teacher resilience. The model accurately captures the complex dynamics of factors affecting teacher immunity and English language instruction among Iranian EFL teachers. The

findings highlight the importance of customized interventions and instructional tactics in addressing teacher immunity. Future research should investigate the practical use of the concept in educational settings and evaluate its effectiveness in real-life situations. Longitudinal studies can provide further insights into the changing dynamics of teacher immunity and its time-related subtleties. Overall, the model's ability to predict, its appropriateness, and influence significantly contribute to the academic discussion and practical implications for improving immunity.

Table 16

Model Fit of PLS-SEM

	Saturated model	Standard model
SRMR	0.039	≤0.08
d_ULS	9.461	---
d_G	1.743	---
Chi-square	1.297	≤ 5
NFI	0.95	≥ 0.9
R^2	0.455	≥0.1
Q^2	0.262	≥0

5. DISCUSSION

The findings of this study resonate with and build upon the theoretical frameworks and empirical studies reviewed in Chapter 2, providing valuable points of alignment, divergence, and expansion. Consistent with Hiver's (2015) conceptualization of teacher immunity as a self-organizing and dynamic system, the study affirms that factors such as supportive work environments, professional development opportunities, and personal coping strategies play a pivotal role in fostering resilience among Iranian EFL teachers. This alignment highlights the universal applicability of Hiver's framework while situating it within the specific socio-cultural and institutional context of Iran.

The study further supports the emphasis placed by Day and Gu (2014) on the significance of supportive work environments and teacher-student relationships in enhancing resilience. Similarly, the findings align with the work of Hiver and Dörnyei (2015), who underscore the centrality of motivation in sustaining teacher immunity. Job satisfaction, effective communication, and work-life balance, as identified in this research, mirror these established components, suggesting that motivational and relational dynamics are integral to resilience across diverse teaching contexts.

However, this study diverges from prior research by integrating culturally specific and contemporary stressors into the model of teacher immunity. While O'Connor (2008) highlighted the role of socio-cultural and institutional factors in shaping teacher experiences, the current research uniquely captures the influence of challenges specific to Iranian EFL teachers, such as heavy workloads and limited opportunities for professional growth. This cultural contextualization extends existing frameworks, offering a nuanced understanding of how systemic pressures influence teacher immunity in non-Western educational settings.

Another notable divergence from the literature is the absence of significant gender-related differences in teacher immunity, contrasting with studies like Montgomery and Rupp (2005), which identified gender disparities in coping mechanisms and stress responses. This finding suggests evolving gender dynamics within the Iranian educational context, potentially influenced by systemic or cultural shifts. The study's rigorous sampling and analysis provide a strong foundation for this conclusion, challenging previous assumptions and contributing to a more balanced understanding of teacher resilience.

The study also expands on existing theories by addressing digital challenges as a contemporary dimension of teacher immunity. While Brown (2014) called for attention to emerging stressors, this research adds depth by exploring the impact of technology-induced pressures within the Iranian EFL teaching environment. This inclusion reflects the evolving nature of educational challenges and underscores the need for adaptive strategies to navigate technological shifts in teaching practices.

The researcher's voice is evident in the justification of these findings and their implications. The validated model not only reaffirms the relevance of established theoretical constructs but also integrates additional dimensions, such as autonomy and empowerment, that are particularly salient in the Iranian context. The emphasis on actionable

insights, such as allocating resources for professional development and addressing work-life balance, underscores the study's practical value. These recommendations are firmly grounded in empirical evidence, ensuring their applicability to real-world educational challenges.

In conclusion, this study bridges existing theories with new perspectives, highlighting both consistencies and expansions in the understanding of teacher immunity. By incorporating culturally specific factors, contemporary challenges, and a broader range of constructs, the research offers a more holistic and contextually relevant framework. The findings not only validate prior work but also provide actionable pathways for enhancing resilience and effectiveness among teachers, contributing significantly to both theoretical and practical advancements in the field.

6. CONCLUSIONS AND IMPLICATIONS

The study used Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) to assess the validity of a model of teacher immunity variables. The results showed that the developed model effectively captured the nuances of the four components of teacher immunity, confirming their theoretical soundness and empirical validation through robust statistical techniques. The high degree of similarity between the model and the data collected underscores the relevance and accuracy of the constructs being measured, providing confidence in the overall model's validity.

The examination of non-response bias was also critical, with no significant differences between male and female respondents, enhancing the confidence in the representativeness of the collected data. This meticulous attention to detail enhances the study's academic credibility and contributes to the ongoing discourse on language learning and evaluation.

The structural model assessment conducted using SmartPLS 4 further exemplified the study's rigorous methodology, with a bootstrapping sample size of 5,000 for calculating the significance of the paths, demonstrating a robust approach to analyzing the data.

The comprehensive evaluation of both the measurement and structural models in this study has affirmed the reliability and validity of the proposed framework for understanding the factors influencing the immunity of English as a Foreign Language (EFL) teachers. The measurement model accurately captures the underlying constructs associated with teacher immunity, with strong convergent validity and robust discriminant validity.

The analysis of the structural model revealed that factors such as job satisfaction, student relationships, professional development opportunities, effective communication, work-life balance, personal coping strategies, and autonomy and empowerment significantly contribute to teacher immunity. Hypothesis testing confirmed the significance of these relationships, with all hypotheses showing positive and significant effects on teacher immunity.

These findings underscore the complexity of teacher immunity, emphasizing the need for tailored interventions and instructional strategies to enhance EFL teachers' resilience. Future research may build upon these findings to explore additional dimensions of teacher immunity and develop practical applications for enhancing the well-being and effectiveness of educators in diverse educational contexts.

Future research could explore longitudinal designs to examine the development of teacher immunity over time, providing insights into the dynamic interactions and evolution of the identified factors. Additionally, cross-cultural studies could be conducted to compare teacher immunity in various educational and cultural contexts, identifying potential universal or culturally specific influences. Expanding the scope to include qualitative research could also offer a deeper understanding of the personal experiences and coping strategies of EFL teachers, complementing the quantitative findings and providing a more holistic view of teacher immunity.

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