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THE INTERRELATIONSHIP BETWEEN LANGUAGE TEACHER IMMUNITY, VISION, MOTIVATION, WELLBEING, AND TPACK

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Abstract
This study investigated the interrelationship between language teacher immunity, vision, motivation, wellbeing, and Technological Pedagogical Content Knowledge (TPACK) among 183 English as a Foreign Language (EFL) teachers in Iran. Structural Equation Modeling (SEM) was employed to examine the relationships between these constructs. The results indicated a significant positive effect of language teacher wellbeing on immunity, TPACK, and motivation. Moreover, TPACK and vision were found to have a significant positive influence on motivation. However, the positive influence of immunity on motivation was not significant. Wellbeing was also found to have a positive impact on vision, with the mediating role of immunity, and on motivation through the mediating roles of immunity, vision, and TPACK. The influence of teaching context (public vs. private), teaching experience, and employment status (full-time vs. part-time) on these constructs was also examined. While a difference was noticed in the perception of the constructs by full-time vs. part-time teachers, the results did not differ significantly for teachers in public vs. private school settings or with varying teaching experience. The findings suggest the importance of considering the dynamic interplay of these factors in understanding language teacher motivation and have implications for teacher education and professional development.

Keywords: EFL teacher immunity, motivation, TPACK, vision, wellbeing

Introduction
Research on language teachers, alternatively known as teacher cognition research (Kubanyiova & Feryok, 2015), broadly focuses on teachers in general, the interplay of knowledge, theories, and procedures (Kumaravadivelu, 2012), and teacher professional development (Kubanyiova, 2012). To understand these complex professional dynamics, empirical research has traditionally examined individual psychological and pedagogical factors. For instance, there is extensive literature investigating teacher motivation (Sadeghi & Pourbahram, 2026), teacher burnout (Chang, 2009), teacher self-efficacy (Swanson, 2012), teacher autonomy (Abdolhosseinzadeh Amini & Kruger, 2022), teacher resilience (Razmjoo &

Ayoobiyan, 2019), and teacher emotional intelligence (Pourbahram & Hajizadeh, 2018), and there are also numerous correlational studies examining the possible relationship between two teacher- related constructs such as socio-emotional competence and self-efficacy (Carmen et al., 2022). Empirical studies tackling these domains together are very limited.

Teacher effectiveness, or 'immunity,' as Hiver (2015) calls it, is a context-sensitive construct (Sun et al., 2025). Hiver (2017) established that language teachers' psychological and emotional functioning directly informs their classroom practices, where maladaptive immunity leads to risk avoidance and apathy. Studies have identified specific contextual triggers of teacher immunity, including student demotivation, low income, and administrative constraints (Rahmati et al., 2019; Haghi et al., 2025). Immunity can be influenced by other factors, including age, emotional intelligence, and perfectionism as well (Khalili & Zohrabi, 2024). While reflecting on negative experiences and being open to criticism and improvement can lead to productive teacher immunity outcomes (e.g., Maghsoudi, 2021), negative perspectives on challenges and confusion in dealing with them can cause maladaptive immunity. However, to sustain teachers in their professional path and make teaching an enjoyable journey, besides equipping teachers with coping strategies to deal with the obstacles on the road, their future path needs to be transparent.

To access this path to follow, the concept of 'vision' has been introduced into the second language (L2) teaching field. Vision is one of the most powerful motivational forces, linked with the ideal future self. A vision, which is a sort of "picture" of the person's opinion of their future self, is associated with the concept of self and includes three dimensions: "the future, the ideal, and the desire for intentional change" (Dörnyei & Kubanyiova, 2014, p. 175). Longitudinal research demonstrates that teacher vision remains multidimensional over time (Parsons et al., 2017) but evolves alongside changes in a teacher's community of practice (Mehdizadeh et al., 2024). That is, an individual needs to have a future self-image, and this image should be different from the present one; establishing this critical theoretical gap between the current actual self and the future possible self creates the necessary motivational drive for intentional change (Hammerness, 2008; Dörnyei & Kubanyiova, 2014). This image needs to be vivid for optimal effort investment and should also be perceived as plausible for the energy to be spent in that direction. Achieving this self needs to be demanding rather than easy, and it should not be incompatible with other parts of one's ought-to self. It should also include a set of procedural strategies to follow and be activated regularly in the person's mind (Dörnyei & Ushioda, 2011).

To provide the necessary motivation, energy, and positive feelings for teachers to continue their clarified future path, positive psychology also seems essential. Positive psychology, with its focus on resources and wellbeing, is essential for maintaining teachers in the profession. Following calls for holistic perspectives on language teacher wellbeing (Mercer & Gregersen, 2020), recent studies demonstrate that external shocks, such as pandemic-related technology stressors and economic instability, erode teacher wellbeing, whereas positive school climate and psychological capital enhance instructional enjoyment and teacher wellbeing (Babic et al., 2023; Pourbahram & Sadeghi, 2022; Sadeghi & Pourbahram, 2024; Zhang et al., 2023). Empirical research on Directed

Motivational Currents (DMCs) shows how positive emotional experiences, personal goals, and emotional management strategies interact over time to sustain long-term instructional behavior (Oh & Kim, 2024; Yu & Liu, 2024).

Therefore, immunizing teachers on their professional path (immunity), clarifying the path to follow (vision), and also equipping them with the essential fuel on this journey (wellbeing & motivation) is imperative for teachers to arrive at their destinations safely; however, unexpected barriers on the road can force teachers to change their direction. Therefore, with the rapid changes in the world threatening teachers' immunity, blurring the path, and consuming fuel excessively, teachers are forced to quit steering along their traditional road to reach goals and take a new direction, converting to a new mode of teaching (online education). Consequently, they have to equip themselves with new weapons such as TPACK to adapt to the new normal. In evaluating digital integration, research confirms that teachers often report lower confidence in technological knowledge relative to content knowledge (Chai et al., 2013; Öz, 2015; Valtonen et al., 2020). However, targeted interventions and emerging ICT software significantly predict and improve TPACK dimensions post-pandemic (Adipat, 2021; Kadıoğlu-Akbulut et al., 2023). TPACK represents a composite body of knowledge that transcends the simple addition of its three foundational elements: content, pedagogy, and technology (originally conceptualized by Mishra & Koehler, 2006; see also Koehler & Mishra, 2009).

Despite these empirical insights into constructs, a critical gap remains in the literature. Most existing studies isolate a single variable or examine bivariate relationships. However, language teaching is a multi-dimensional task, and teachers possess complex identities. Understanding how language teachers flourish, or the reverse story, especially following the sudden conversion to online education and post-pandemic disruptions, requires moving beyond isolated analyses. Therefore, examining how positive psychological constructs (i.e., immunity, vision, motivation, wellbeing) and pedagogical competencies (i.e., TPACK) operate as an interconnected system during times of educational crisis is important. Furthermore, understanding how contextual realities, such as teaching experience, employment status (full-time vs. part-time), and institutional environments (public vs. private), influence these psychological and technological interrelationships remains crucial for professional development. Addressing this gap, the present study investigates the dynamic interrelationship among these five constructs across the two different teaching contexts. To this end, the following research questions were posed:

1. Is there any relationship between and among EFL teachers' immunity, vision, motivation, wellbeing, and TPACK?
2. How do teaching context (public vs. private), teaching experience, and employment status (full-time vs. part-time) influence this interrelationship?

Research question 1 examines the possible relationship between constructs (immunity, vision, motivation, wellbeing, and TPACK) using Structural Equation Modeling (SEM), and as such, the following model is proposed.

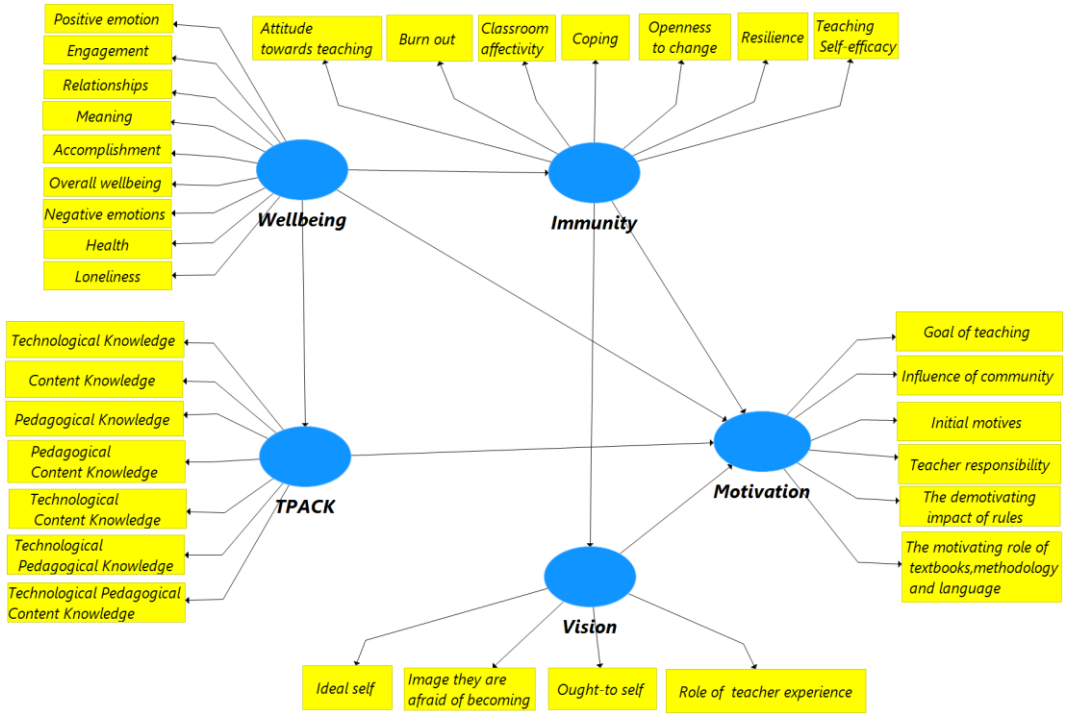


Figure 1. Hypothesized model of the dynamic interplay between immunity, vision, motivation, wellbeing, and TPACK

To establish the theoretical foundation for the hypothesized model, this section defines the five core constructs conceptually and operationally and details their interrelationships.

Theoretical underpinnings

Language teacher immunity

Drawn metaphorically from the biological immune system, the concept proposes a protective system assisting teachers in the face of professional turbulence (Hiver, 2015, 2017). Based on this, teachers are categorized into productive immunized and maladaptive immunized, with each category resulting in different teaching and learning outcomes (Hiver & Dörnyei, 2017). Operationally, language teacher immunity is defined as the self-reported level of productive versus maladaptive coping mechanisms measured via a 5-point Likert scale.

Language teacher vision

To sustain teachers in their professional path and make teaching an enjoyable journey, their future path needs to be transparent. The concept of 'vision' addresses this need in the field of second language (L2) teaching. Vision, as one of the most powerful motivational forces, is "the highest order motivational force" that is relevant to long-term behavior and is considered "one of the most reliable predictors of individual long-term intended efforts" (Dörnyei & Kubanyiova, 2014, p. 9). It requires a vivid, plausible future self-image accompanied by procedural strategies to guide long-term effort investment (Dörnyei & Ushioda, 2011). Operationally, language teacher vision is defined as the teacher's self-assessed images, vividness, and strategic goals regarding their ideal professional future self, measured via a 5-point Likert scale adapted from Rahmati et al. (2018).

Motivation and directed motivational currents (DMCs)

To provide the necessary energy for teachers to pursue their vision, motivation is essential. Motivation, or the strong tendency to engage in a given activity, operates through various frameworks, with Directed Motivational Currents (DMCs) serving as an overarching structure for intensive, goal-oriented motivational surges (Henry, 2019; Muir & Dörnyei, 2013). Operationally, teacher motivation is defined as the intensity and flow of goal-directed motivational energy measured via a 5-point Likert scale, adapted from Rahmati et al. (2018).

Teacher wellbeing

Resources should weigh heavier than challenges in the see-saw of wellbeing. Positive psychology focuses on aspects of life that lead to happiness and fulfillment (Linley et al., 2006), with the goal of increasing flourishing. Seligman (2011) proposed the PERMA model (Positive Emotion, Engagement, Positive Relationships, Meaning, and Accomplishment) to define flourishing within professional life (MacIntyre et al., 2019). Operationally, teacher wellbeing is defined as the degree of workplace flourishing across the PERMA dimensions, measured via a 5-point Likert scale, adapted from Kern et al. (2014).

Technological pedagogical content knowledge (TPACK)

Technological Pedagogical Content Knowledge (TPACK) is a primary model of teacher knowledge regarding technology integration in education. The model suggests combining a variety of knowledge dimensions to be able to teach effectively. These knowledge dimensions include components of Pedagogical Knowledge (PK), Content Knowledge (CK), and Technological Knowledge (TK). Moreover, there are three first-level components that are formed in their combination: Pedagogical Content Knowledge (PCK), Technological Pedagogical Knowledge (TPK), and Technological Content Knowledge (TCK). These three combine with second-level components to form Technological Pedagogical Content Knowledge (TPACK). This is a combination of all the mentioned knowledge dimensions (Schmid et al., 2021). Operationally, TPACK is defined as teachers' self-assessed competency across its intersecting knowledge domains, measured via a 5-point Likert scale, adapted from Baser et al. (2016).

Interrelationship among the constructs

Understanding the dynamic interplay between immunity, vision, motivation, wellbeing, and TPACK provides the theoretical rationale for the proposed structural model (Figure 1). These constructs do not function in isolation; rather, they form a mutually reinforcing psychological and pedagogical engine. First, immunity serves as the protective foundation, and immunizing teachers against professional challenges protects their psychological well-being when facing unexpected instructional hurdles. Secondly, vision acts as the guiding compass for teachers. Once teachers are protected, clarifying their future professional trajectory provides a clear destination for career progression. Next, motivation and wellbeing provide the fuel. Positive psychological states (wellbeing) and powerful motivational energy (DMCs) serve as the essential fuel required to pursue that vision over extended periods. Finally, TPACK acts as the instructional instrument. External environmental shifts, such as sudden transitions to online education during

lockdowns, threaten teacher immunity, blur vision, and deplete wellbeing and motivation. To navigate these disruptions, teachers must equip themselves with modern instructional instruments. TPACK offers this necessary professional toolkit, empowering teachers. Exploring this multi-construct interplay addresses critical theoretical gaps and provides insights into how to support language educators on a full scale.

Method

Context

English language instruction in Iran is offered in public and also private schools, with considerable differences between the two contexts (for detailed information, see Sadeghi & Pourbahram, 2024). The data for the current study were collected from both settings.

Participants

The participants of this study were 183 (Male = 59, Female = 124) EFL teachers in Iran, chosen by convenience sampling. They taught English as a Foreign Language (EFL) in public high schools (N = 23), private language institutes (N = 58) or both the private and public sectors (N = 102) in Iran. Specifically, the public school participants taught across various grade levels within the secondary public high school system (grades 10 through 12). More details about teachers' age, gender, degree, major, teaching experience, and type of job are presented in Table 1.

Table 1. Study participants' profiles

All participants				Private sector		Public sector		Both contexts	
		No.	%	No.	%	No.	%	No.	%
Degree	BA	58	31.7	18	31.0	10	43.5	30	29.4
	MA	96	52.5	33	56.9	8	34.8	55	53.9
	PhD	20	10.9	3	5.2	4	17.4	13	12.7
	Diploma & less	9	4.9	4	6.9	1	4.3	4	3.9
Gender	Male	59	32.2	18	31.0	9	39.1	32	31.4
	Female	124	67.8	40	69.0	14	69.9	70	68.6
Major	TEFL	129	70.5	42	72.4	19	82.6	68	66.7
	Literature	32	17.5	9	15.5	1	4.3	22	21.6
	Translation	14	7.7	3	5.2	3	13.0	8	7.8
	Others	8	4.4	4	6.9	0	0	4	3.9
Age	Less than 20	2	1.1	1	1.7	0	0	1	1.0
	20-25	47	25.7	18	31.0	9	39.1	20	19.6
	26-30	43	23.5	15	25.9	4	17.4	24	23.5
	31-35	34	18.6	9	15.5	4	17.4	21	20.6
	36-40	41	22.4	10	17.2	5	217	26	25.5
	Over 40	16	8.7	5	8.6	1	4.3	10	9.8
Teaching experience	Less than 5 years	60	32.8	22	37.9	10	43.5	28	27.5
	5-10	65	35.5	22	37.9	5	21.7	38	37.3

All participants				Private sector		Public sector		Both contexts	
		No.	%	No.	%	No.	%	No.	%
	10-15	35	19.1	11	19.0	5	21.7	19	18.6
	16-20	13	7.1	3	5.2	2	8.7	8	7.8
	Over 20	10	5.5	0	0	1	4.3	9	8.8
Type of Job	Full time	90	49.2	28	48.3	10	43.5	52	51.0
	Part time	93	50.8	30	51.7	13	56.5	50	49.0
Teaching context		183	100	58	31.7	23	12.6	102	55.7

Instruments

A questionnaire was administered to elicit data to answer the research questions. The questionnaire was composed of an introduction, followed by a section on demographic information, and the main body of the questionnaire was divided into five subsections. After the introduction section, the demographic part of the questionnaire elicited information about the participants' age, gender, educational background, teaching experience, employment status (full-time vs. part-time), and teaching context (private vs. public). The main part of the questionnaire was divided into five subsections, each focusing on one of the main constructs of the study. In total, the questionnaire was composed of 166 statements in the form of Likert-scale items. In the first four subsections (immunity, vision, motivation, and TPACK), the respondents had to choose one of the five Likert-scale options from Strongly Disagree to Strongly Agree. In the last subsection (wellbeing), however, they had to choose one of the five Likert-scale options from Never to Always. Different sections of the questionnaire were adapted from Rahmati et al. (2018), Kern et al. (2014), and Baser et al. (2016).

The questionnaire was piloted with 30 participants before final implementation. The validity of each of these five sections was checked through Average Variance Extracted (AVE). The analysis showed that the convergent validity of observable variables was more than 0.5; therefore, the validity of the model was confirmed in terms of convergent validity. Moreover, based on the Fornell-Larcker Criterion, the amount of AVE of all variables was greater than the amount of correlation between them in other squares, indicating acceptance of the research model's divergent validity. The reliability of the constructs was also checked using Cronbach's Alpha (0.85) and Composite Reliability (0.91). Therefore, a high level of reliability and validity for the constructs was established (Appendix A provides relevant tables).

Procedure

To adhere to ethical standards in human-subject research, ethical approval and institutional protocols were strictly observed throughout the research process. The e-questionnaire was developed in Google Forms, and the link was shared on numerous online platforms. Prior to participation, all respondents were provided with an informed consent statement detailing the purpose of the study, ensuring guaranteed data anonymity, and confirming that participation was completely voluntary with the right to withdraw at any time. In order to avoid response duplication, the 'limit to one response' option of Google Forms was activated, and

there was no manual (paper and pencil) questionnaire administration. Weekly reminders were sent, and the respondents were informed that it would take approximately 35-40 minutes to fill in the e-questionnaire. In total, 187 EFL instructors returned the questionnaire, of which 183 were used in the project, and the rest (N = 4) were withdrawn due to noticed mistakes/missing information.

Data analysis

The quantitative data were first checked for possible issues during the data entry process and against required parametric assumptions. To answer research question 1, using SmartPLS 3.2.8, SEM (Structural Equation Modeling), the analysis was run to identify possible relationships between and among variables and their components.

Findings and Discussion

Findings

The relationship between teachers' immunity, vision, motivation, wellbeing, and TPACK

To answer research question 1 (i.e., Is there any relationship between and among EFL teachers' immunity, vision, motivation, wellbeing, and TPACK?), first, the assumption of normality of the research groups was examined using the Kolmogorov-Smirnov test, and then the research hypotheses were tested using structural equation modeling. As the level of significance for all the studied variables was less than 0.05, the assumption of normality of the studied variables was violated in the statistical sample of the study ($P < 0.05$) (Appendix B). Therefore, non-parametric tests, that is, PLS for structural equation modeling, as well as Mann-Whitney and Kruskal-Wallis, were used to test the research hypotheses and compare the groups.

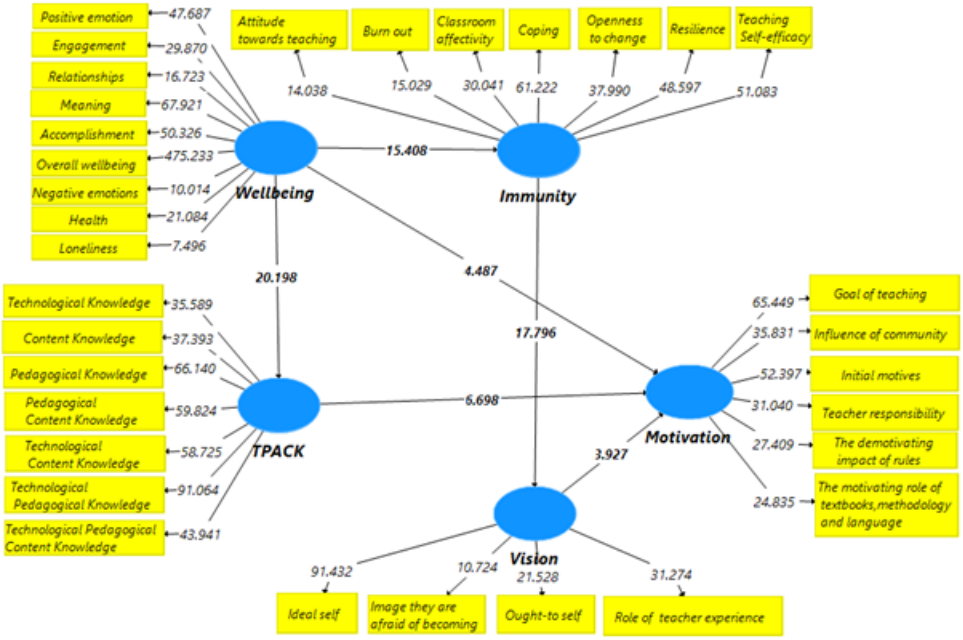


Figure 2. Modified model predicting the motivation of English teachers based on the variables of wellbeing, immunity, vision, and their TPACK in the case of significant estimation (t-value)

As can be seen in Figure 2, in the modified model (with the omission of immunity to the motivation path), the t-statistic for all paths is greater than the value of 1.96, which indicates that all paths in the modified model are supported. To make these structural equation modeling (SEM) outcomes easily interpretable for readers, the path coefficients represent direct predictive strengths (measured on a standardized scale), while t-values exceeding 1.96 confirm that these relationships are statistically reliable rather than occurring by chance.

Considering the direct and indirect influence of variables on each other, Tables 2 and 3 below summarize the results. It should be noted that the coefficients corresponding to the eliminated paths in the model are reported based on the initial tested model, and other path coefficients are calculated and reported based on the modified model.

Table 2. Total direct effects coefficients

Path	Effect	T-value	Sig.	Result
Wellbeing -> Immunity	0.676	15.408	0.000	Confirmed
Wellbeing -> TPACK	0.791	20.198	0.000	Confirmed
Wellbeing -> Motivation	0.353	4.487	0.000	Confirmed
Immunity -> Vision	0.710	17.796	0.000	Confirmed
Immunity -> Motivation	0.060	1.313	0.190	Rejected
TPACK -> Motivation	0.323	6.698	0.000	Confirmed
Vision -> Motivation	0.315	3.927	0.000	Confirmed

Table 3. Total indirect effect coefficients

Path	Effect	T-value	Sig.	Result
Wellbeing -> Immunity -> Motivation	0.041	1.338	0.182	Rejected
Wellbeing -> TPACK -> Motivation	0.255	6.117	0.000	Confirmed
Wellbeing -> Immunity -> Vision	0.480	8.861	0.000	Confirmed
Immunity -> Vision -> Motivation	0.223	3.788	0.000	Confirmed
Wellbeing -> Immunity -> Vision -> Motivation	0.151	3.611	0.000	Confirmed

As shown in Table 3, considering that for all the indirect coefficients except the effect of wellbeing on motivation with a mediating role of immunity, the t-statistic is greater than 1.96 and the significance level is less than 0.05; therefore, it can be stated that all indirect path coefficients in the conceptual model of the research except the effect of wellbeing on motivation with immunity as a mediator have been confirmed.

The role of teaching context, teaching experience, and employment status

The following procedure was conducted to answer research question 2 [i.e., How do teaching context (public vs. private), teaching experience, and employment status (full-time vs. part-time) influence this interrelationship?]. Due to the abnormality of the research groups, for group comparisons, nonparametric tests of Mann-Whitney U and Kruskal-Wallis were used; the results are reported separately.

Table 4. Results of Kruskal-Wallis test to evaluate the perceptions of the research variables by teaching context (public vs. private)

	Teaching context	N	Mean	Mean Rank	Chi-Square	Df	Sig
Immunity	public sector	23	129.00	89.20	0.075	2	0.963
	private sector	58	131.40	92.57			
	both	102	130.34	92.31			
Vision	public sector	23	121.22	75.67	2.945	2	0.229
	private sector	58	127.34	98.05			
	both	102	124.19	92.24			
Motivation	public sector	23	122.91	79.43	1.719	2	0.423
	private sector	58	129.43	96.52			
	both	102	127.52	92.26			
TPACK	public sector	23	151.57	78.00	1.843	2	0.398
	private sector	58	158.64	93.63			
	both	102	156.31	94.23			
Wellbeing	public sector	23	83.70	77.59	1.960	2	0.375
	private sector	58	87.33	94.64			
	both	102	86.22	93.75			

The variable of teaching context is not recognized as a factor affecting teachers' perception of the studied variables (P> 0.05), as the significance level of the Kruskal-Wallis test for all studied variables is greater than 0.05 (Table 4). In other words, there is no significant difference in perceptions of study variables between teachers in public schools, private language institutes, or those who work in both contexts.

Table 5. Results of Kruskal-Wallis test to evaluate the perceptions of the research variables by employment status (full-time vs. part-time)

	Job Type	N	Mean	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Sig
Immunity	full-time	90	138.07	101.86	9167.00	3298.000	-2.476	0.013
	part-time	93	123.19	82.46	7669.00			
Vision	full-time	90	134.90	113.99	10259.00	2206.000	-5.525	0.000
	part-time	93	115.05	70.72	6577.0			

	Job Type	N	Mean	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Sig
Motivation	full-time	90	136.44	108.90	9801.00	2664.000	-4.247	0.000
	part-time	93	118.94	75.65	7035.00			
TPACK	full-time	90	165.97	105.07	9456.50	3008.500	-3.285	0.001
	part-time	93	147.25	79.35	7379.50			
Wellbeing	full-time	90	92.01	107.89	9710.00	2755.000	-3.993	0.000
	part-time	93	80.68	76.62	7126.00			

The significance level of the Mann-Whitney test for all variables is less than 0.05 in Table 5, which indicates a significant difference between full-time and part-time teachers in how they perceive the studied variables ($p \leq 0.05$; $z \geq \pm 1.96$). The findings showed that full-time teachers evaluated their immunity, vision, motivation, TPACK, and wellbeing at a higher level than their part-time peers. Therefore, it can be stated that the employment status (full-time vs. part-time) can be considered an important factor influencing teachers' perceptions of their immunity, vision, motivation, TPACK, and wellbeing.

Table 6. Results of Kruskal-Wallis test to evaluate the perceptions of the research variables by teaching experience

	Experience	N	Mean	Mean Rank	Chi-Square	f	Sig
Immunity	Less than 5 years	60	128.55	89.13	0.696	4	0.952
	5-10 years	65	130.83	93.04			
	10-15 years	35	130.49	90.79			
	16-20 years	13	137.54	102.04			
	More than 20 years	10	131.10	93.65			
Vision	Less than 5 years	60	120.68	82.65	6.441	4	0.168
	5-10 years	65	125.42	91.25			
	10-15 years	35	126.29	100.80			
	16-20 years	13	135.77	119.42			
	More than 20 years	10	126.30	86.55			
Motivation	Less than 5 years	60	125.03	90.16	2.851	4	0.583
	5-10 years	65	128.85	92.29			
	10-15 years	35	125.49	88.86			
	16-20 years	13	136.85	114.54			

	Experience	N	Mean	Mean Rank	Chi-Square	f	Sig
TPACK	More than 20 years	10	129.30	82.85	3.745	4	0.442
	Less than 5 years	60	151.92	84.56			
	5-10 years	65	158.97	95.00			
	10-15 years	35	152.46	88.47			
	16-20 years	13	166.54	107.08			
	more than 20 years	10	168.20	109.90			
Wellbeing	Less than 5 years	60	83.85	86.43	1.497	4	0.827
	5-10 years	65	87.66	93.90			
	10-15 years	35	85.00	92.91			
	16-20 years	13	89.69	94.96			
	more than 20 years	10	91.40	106.00			

The significance level of the Kruskal-Wallis test for all studied variables is greater than 0.05 in Table 6, meaning that teaching experience is not recognized as a factor affecting teachers' perception of the studied variables (P> 0.05).

Discussion

The study was an attempt to find a possible relationship between language teacher immunity, vision, motivation, wellbeing, and TPACK. The results indicated a significant positive effect of language teacher wellbeing on immunity, TPACK, and motivation. This suggests that it is important for language teachers to take care of their wellbeing. This can be done by engaging in activities that they enjoy, such as spending time with family and friends, pursuing hobbies, or practicing relaxation techniques, supporting contemporary ecological perspectives on teacher wellbeing and professional development (Ebadijalal & Moradkhani, 2022; Kotowski et al., 2022; MacIntyre et al., 2019; Mercer, 2020).

Moreover, a significant positive influence of TPACK and vision on motivation was found in the analysis. The finding that TPACK has a positive influence on motivation suggests that language teachers should focus on developing their TPACK, a finding in line with that of Harmadi et al. (2025) as well as broader teacher cognition research (Mishra & Koehler, 2006). This can be done by taking courses, attending workshops, or reading professional literature. It is also important for language teachers to be open to new technologies and teaching methods. Moreover, the finding that vision has a positive influence on motivation suggests that language teachers should have a clear vision of their future professional self. This vision should be based on their own beliefs and values, as well as the needs of their students. The positive influence of vision on motivation has been supported by findings of Rahmati et al. (2018), Sadeghi and Pourbahram (2026), and Safdari (2019) and mirrors L2 motivational self-system principles (Dörnyei & Kubanyiova, 2014).

This study indicated the positive influence of wellbeing and TPACK on motivation; while studies have noticed the positive relationship between TPACK

and motivation (Harmadi et al., 2025), TPACK is reported to be strongly relevant to teachers' job-related wellbeing. Teachers who used avoidance strategies experienced burnout, while teachers with good TPACK experienced better wellbeing levels (Stan, 2022). Moreover, the relationship between intrinsic motivation and wellbeing is well-documented by Grassinger et al. (2024). In other words, this implies that teachers with high levels of wellbeing and TPACK possess remarkable levels of motivation that encourage them to continue their profession efficiently.

However, the positive influence of immunity on motivation was not found to be significant. Therefore, except for the relationship between immunity and motivation, all the other paths in the suggested model were confirmed.

Considering the indirect effect of constructs on each other, wellbeing did not have any significant influence on motivation through the mediating role of immunity. However, wellbeing was found to have a positive impact on vision, with the mediating role of immunity. That is, immunized teachers with boosted wellbeing can form fully functioning visions. In other words, it can be concluded that when teachers enjoy satisfactory wellbeing levels and are able to cope with the challenges of their work, they are more likely to have a clear vision for their future. This vision can then serve as a source of motivation, helping teachers stay focused and engaged in their work.

Wellbeing could also have a positive influence on motivation through the mediating roles of immunity and vision. This finding suggests that when teachers feel well, they are more likely to be resilient and to have a positive outlook on their work. This resilience and positive outlook can then help teachers overcome challenges and stay motivated in their work. In other words, proper levels of teacher wellbeing can positively enhance teacher motivation by improving their immunity and vision. That is, when there is a balance between teachers' resources and challenges, teachers can devote time to form a vision of their ideal future selves and learn to equip themselves to tackle possible problems in their professional path.

Moreover, through TPACK, wellbeing had a positive influence on motivation. That is, teachers with appropriate wellbeing levels were willing to improve their TPACK, and this could influence teachers' motivation. This finding suggests that teachers with satisfactory wellbeing levels are able to use technology effectively and are more likely to be motivated to teach. This is because technology can help teachers be more creative and engaging in their teaching, and it can also help them to reach a wider range of students. TPACK variables have been found to be positively related to intrinsic motivation (Fernandes et al., 2020) as well as to digital competence frameworks in education (Redecker, 2017).

The influence of the context of teaching (public vs. private), employment status (full-time vs. part-time), and teaching experience was also examined with regard to the constructs under study. While a difference was noticed in the perception of the constructs by full-time vs. part-time teachers, the results did not differ significantly for teachers in the two contexts (public vs. private) or with varying teaching experience [unlike that of Zhang et al. (2021), in which personal factors such as teaching experience influenced teacher motivation]. The difference found with regard to employment status can be attributed to the importance these teachers attach to their jobs: while full-time teachers fully focus on their teaching profession (as their only job), their part-time peers seek out other job opportunities

to better meet their needs. Moreover, job security could be another factor influencing the two groups regarding their perception of the constructs. While full-time teachers possibly enjoy high levels of job security, this may not be the case for their part-time counterparts. Less satisfaction with work and its benefits among part-time workers was also reported by Liu and Zhang (2014). Generally, full-time and part-time employees may have different *psychology of work* that leads to various attitudes, turnover, and possibly motivation (Peters et al., 1981), an observation consistent with broader organizational commitment literature (Meyer & Allen, 2001).

Conclusion

The study confirmed the interrelationship of immunity, vision, motivation, wellbeing, and TPACK. While many believe that the attrition rate of teachers is unreasonably high (Borman & Dowling, 2008) and teachers are recognized as having low professional wellbeing (Johnson et al., 2005), there seem to be many available options that could be used to change teachers' views towards the profession, equip them to tackle the problems, motivate them to further pursue their professional path and pave the way for their flourishing.

As there seem to be no previous studies that have examined the dynamic interplay of these concepts (i.e., immunity, vision, motivation, wellbeing, and TPACK), this study was an attempt to outline potential paths between these constructs, each of which needs closer investigation for a better understanding of the larger picture. This can act as a double-edged sword: lack of previous studies not only indicates the novelty of the present research, but it can also be considered a limitation, as there is no previous study to confirm and justify our findings. Furthermore, relying exclusively on self-report questionnaires introduces potential common-method variance and subjective bias. Additionally, the sample was geographically restricted to EFL teachers in Iran, which limits the cross-cultural generalizability of the structural pathways. Moreover, the current study examined several constructs with a limited number of participants. Therefore, future longitudinal studies can not only utilize various data collection tools with a larger number of participants but also document the changes in the study variables over the years.

Teachers are not really aware of these constructs and their influence on their profession. Introducing these constructs and offering teachers practical techniques to boost productive immunity and a fully-functioning vision is the responsibility of teacher trainers. Strategies such as improving working conditions, providing supportive environments and role models as techniques that could help with vision enhancement have been reported to be influential (Eisenberger et al., 2002; Rahmati et al., 2019). Another solution is to design teacher training courses, as highlighted by Gao and Xu (2014). To adapt to new educational conditions in the new normal, teachers also need to update their knowledge, including TPACK.

To translate these insights into actionable practice, educational institutions and teacher training programs should implement structured interventions. For instance, institutions should establish peer-mentoring circles, regular workload assessments, and reflective debriefing sessions. For TPACK, workshops should move beyond basic software training to hands-on, discipline-specific pedagogical integration (e.g., integrating interactive digital corpora and task-based digital tools

for language learning), directly linking technical competency to reduced classroom anxiety. By measuring teacher TPACK, designing courses to improve TPACK, and observing the influence of teacher TPACK on student achievement as well as teacher motivation, further studies can move the current body of knowledge in the field one step forward.

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Appendix A

Convergent validity of research variables

Hidden variables	Average Variance Extracted (AVE)	Condition
Immunity	0.695	Accepted
Motivation	0.775	Accepted
TPACK	0.828	Accepted
Vision	0.657	Accepted
Wellbeing	0.677	Accepted

Discriminant validity based on Fornell-Larcker Criterion

	1	2	3	4	5
Immunity	0.834				
Motivation	0.711	0.880			
TPACK	0.687	0.851	0.910		
Vision	0.710	0.811	0.791	0.879	
Wellbeing	0.676	0.823	0.791	0.875	0.883

Appendix B

Results of Kolmogorov-Smirnov test on the normality of the distribution of scores of research variables

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Immunity	.107	183	.000
Vision	.128	183	.000
Motivation	.142	183	.000
TPACK	.121	183	.000
Wellbeing	.141	183	.000