

## Professional development model for language teachers in junior high schools in Anhui province, China

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**Abstract:** Junior high school language education is undergoing a reform that prioritizes the development of students' language literacy, extending traditional language and literature instruction. Teacher professional development (PD) is crucial for ensuring the effective implementation of this approach. However, in the context of junior high school language education reform, studies regarding how language instruction promotes students' moral development, addresses the unequal distribution of educational resources between urban and rural areas, and enhances teacher quality are limited. Against this backdrop, the purpose of the present study is to investigate the administrative context, PD level, and influencing factors of PD among junior high school language teachers in Anhui Province, and propose a PD model for language teachers. Based on data from 598 respondents, this study employs a mixed-methods approach, integrating qualitative interviews, quantitative surveys analyzed with AMOS, and focus group discussions. The findings indicate that individual teacher factors (ITF) and educational authority factors (EAF) have significant positive direct effects on teacher's PD guide (TPGD). Furthermore, school management factors (SMF) also have a significant positive direct effect on TPGD. Additionally, SMF was found to mediate the relationships between ITF and TPGD, as well as between EAF and TPGD, indicating significant indirect effects of ITF and EAF on TPGD through SMF. This study highlights the need for greater support and opportunities to address challenges such as limited professional pursuit, ensuring quality language education. The proposed PD model offers valuable insights into effectively supporting language teachers' PD, with implications for policy and practice.

**Keywords:** Junior High Schools, Language Teachers, Professional Development Model, Professional Development.

### 1. Introduction

In the latest compulsory education curriculum standards released by the Ministry of Education of the People's Republic of China [1] it is pointed out that language education should be committed to the formation and development of students' language literacy. This is significantly different from the traditional understanding that language education is primarily about teaching language and literature. Language literacy is the foundation for students to learn other courses well, and it is also the foundation for their all-round and lifelong development. Therefore, Junior High Schools language courses need to be reformed to meet the new curriculum standards. However, implementing these revised curriculum standards necessitates a corresponding shift in teachers' professional competencies. The transition from a content-focused pedagogy to one that prioritizes language literacy demands that teachers' professional development.

Teacher professional development (PD) encompasses a range of activities and processes designed to enhance teachers' knowledge, skills, and dispositions related to their professional practice [2]. While existing literature offers valuable insights into various aspects of teacher PD, several critical gaps

remain, particularly concerning junior high school language teachers. First, many studies focus on specific regions or school types, limiting the generalizability of their findings [3, 4]. Second, some research relies solely on questionnaires or interviews, lacking the depth and triangulation offered by mixed-methods designs [5]. This methodological limitation hinders a comprehensive understanding of the complex interplay of factors influencing teacher development. Third, a significant number of studies emphasize theoretical analysis while neglecting the crucial link to practical classroom application, thus failing to provide effective guidance for instructional practice [6]. Fourth, in the era of rapid technological advancement, the impact of technology on language teaching and teacher development has not been adequately explored in existing research. Finally, although Anhui Province is an important component of China's educational landscape, with unique economic and cultural characteristics, research specifically addressing the PD of its junior high school language teachers is scarce. Hence it is crucial to address these gaps and propose a context-specific PD model.

In this study, we aim to propose a PD model for language teachers in junior high school in Anhui Province, China. This study adopted a three-phase mixed-methods design. First, qualitative interviews to identify key influencing factors on teacher PD. Second, quantitative surveys analyzed with AMOS to establish a structural equation model and test hypotheses regarding the relationships between individual, school-based, and educational sector factors and teacher PD. Third, focus group discussions to further validate the findings from both the qualitative and quantitative. Drawing on these findings, we developed a context-specific PD model for junior high school language teachers in Anhui Province, ultimately contributing to improved language instruction and enhanced student learning outcomes. Based on the literature review and theoretical analysis, this study proposes the following hypotheses:

*H<sub>1</sub>: Individual teacher factors (ITF) are positively and significantly related to language teachers PD guide (TPDG).*

*H<sub>2</sub>: ITF are positively and significantly related to school management factors (SMF).*

*H<sub>3</sub>: Educational authority factors (EAF) are positively and significantly related to SMF.*

*H<sub>4</sub>: EAF are positively and significantly related to TPDG.*

*H<sub>5</sub>: SMF are positively and significantly related to TPDG.*

*H<sub>6</sub>: SMF mediate the positive relationship between ITF and TPDG.*

*H<sub>7</sub>: SMF mediate the positive relationship between EAF and TPDG.*

## 2. Literature Review

### 2.1. Teachers' Professional Development (PD)

PD is defined as the knowledge and skills necessary for adapting instructional practices, ultimately leading to improved student learning and achievement [7]. The primary aim of PD is to enhance student outcomes by fostering teacher learning and promoting changes in classroom practices [8]. To facilitate the PD of teachers, it is necessary to understand the process by which teachers grow professionally and the conditions that support and promote that growth [9]. While these definitions provide a general framework for PD, language teachers must address the specific challenges of fostering communicative competence, integrating technology into language classrooms, and adapting to evolving curriculum standards that emphasize language literacy [10]. Furthermore, Generative Artificial Intelligence (GenAI) tools have been significant influence in education. However, language teachers generally lack the abilities to leverage GenAI tools in instrument [11].

The Compulsory Education Language Curriculum Standards [1] require junior high school teachers to focus on the formation of students' language literacy. However, implementing these revised curriculum standards necessitates a corresponding shift in teachers' professional competencies. First, teachers should have a deepened understanding of language literacy, moving beyond a narrow view of decoding and encoding to encompass critical thinking, communication skills, cultural awareness, and the ability to navigate diverse texts and contexts [2]. Second, teachers should proficiency in designing literacy-based instruction, creating authentic learning experiences that connect classroom learning to

real-world contexts [2]. Third, teachers can effective assessment of language literacy, employing sophisticated approaches that evaluate students' ability to apply their literacy skills meaningfully [12]. Forth, teachers should have capacity for reflective practice and continuous PD, staying abreast of current research and collaborating with colleagues [13]. Existing literature provides valuable insights into PD principles and their application to language education, but lack of context-specific research.

## 2.2. Factors Influencing Teachers' PD

Teacher PD is a complex and multifaceted process influenced by a variety of interacting factors. Existing literature identifies influences can be categories to three aspect: individual teacher characteristics, school management practices, and the broader administrative context established by educational authorities [6, 14-16]. These factors interact in complex ways to shape the effectiveness and impact of PD initiatives.

Teachers' knowledge, beliefs, and motivation are key individual factors influencing PD [17]. Teachers' epistemological beliefs impact their receptiveness to new pedagogies, whom with a growth mindset are more likely to embrace new ideas [14]. Teachers' self-efficacy predicts PD participation and subsequent implementation. Prior knowledge and experience shape PD information interpretation and integration. Intrinsic motivation and PD relevance to professional goals drive teacher engagement and practice change. Furthermore, the school context significantly influences PD implementation and effectiveness [18]. Strong leadership support fosters a professional learning culture and provides PD resources. A school culture valuing collaboration, reflection, and communication facilitates effective PD [15]. Adequate resources are necessary for effective PD implementation. Additionally, educational policies can facilitate or constrain teacher PD [19]. Policies prioritizing teacher development, PD funding, and clear standards create a more conducive environment. Curriculum standards and assessment practices influence PD content and focus [16]. Administrative funding and resource allocation directly impacts PD availability and quality. Evaluation and accountability systems influence the importance attached to PD.

To understand how these principles are enacted within specific educational settings, it is important to examines the administrative context, current PD level, and influence factors for junior high school language teachers in Anhui Province.

## 3. Methods and Materials

### 3.1. Population and Sample

The subjects of this study are teaching administrators and junior high school language teachers in junior high schools in Anhui Province. The sample group was to be collected from 500 observations from junior high schools in 16 prefecture-level cities in Anhui Province, and the researcher used Krejcie and Morgan [20] sample scale to determine the sample size. The researcher assigned 40 survey respondents to junior high schools in 16 prefecture-level cities in Anhui Province. The survey respondents in each prefecture-level city consisted of 5 respondents from junior high school administrators (80 respondents), 5 administrators from education authorities (80 respondents), and 30 teachers (480 respondents), totaling 640 respondents using simple random sampling.

### 3.2. Research Instruments

To investigate the PD of junior high school language teachers in Anhui Province, this study employed a mixed-methods approach, combining questionnaires and semi-structured interviews. First, the questionnaire including collected demographic information (gender, position, age, highest educational background, and years of experience) and a 65-item scale assessing various aspects of teacher PD. Second, semi-structured interviews were conducted with administrators and educators. The interview protocol was developed based on the literature review and refined based on feedback from the dissertation advisor.

3.3. Data Analyses

Completed questionnaires were screened for completeness, and valid responses were analyzed using statistical software. The analysis proceeded in the following stages: first, descriptive statistics (frequencies and percentages) were calculated for demographic variables. Second, exploratory factor analysis (EFA) was conducted to determine the factor structure of the scale. Third, confirmatory factor analysis (CFA) was conducted to validate the measurement model. Forth, path analysis was employed to examine the influence of instructional leadership on teacher PD. Fifth, structural equation modeling (SEM) was used to test the overall model fit. Finally, focus group discussions were conducted to further validate the quantitative findings and provide contextual insights, informing subsequent interpretations and recommendations.

3.4. Structural Framework

To clearly show the relationship between TPDG, ITF, EAF and SMF, the structural framework was constructed as shown in Figure 1.

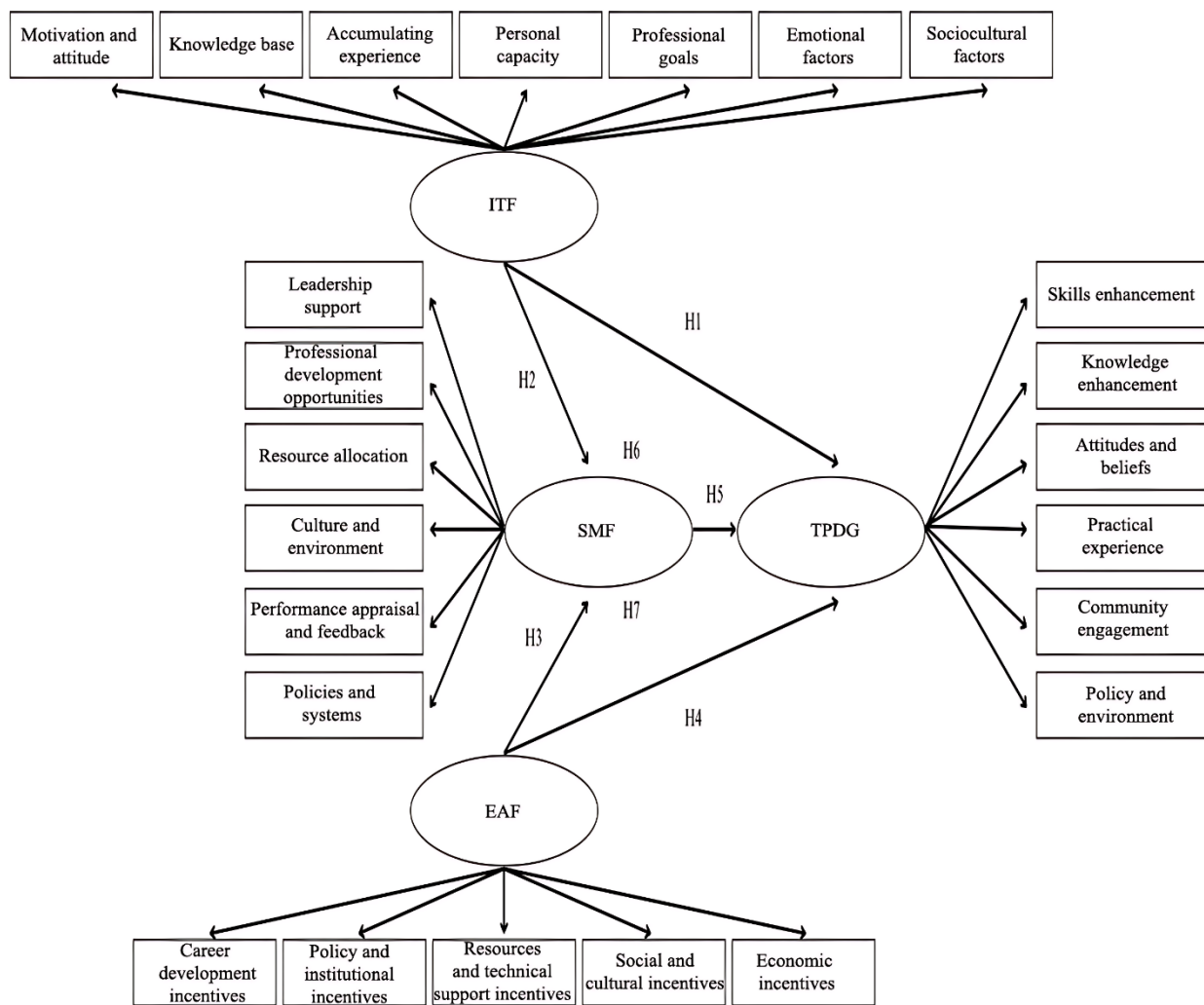


Figure 1. Structural framework.

## 4. Results

To study the factors that affect the PD of junior high school teachers, this study adopts a mixed research method combining qualitative and quantitative methods. First, we in-depth interviews with respondents to find out the factors that affect the PD of junior high school teachers in Anhui Province. Then we organize and present them in the study. Second, we organize the data collected by the questionnaire and use AMOS for descriptive statistics and reliability analysis. We analyze the relationship between ITF, SMF and EAF and the impact of TPDG. Then we establish a structural equation model of teacher PD. The hypotheses proposed in this paper were verified through path analysis and mediation effect test. Third, through focus group discussions, we qualitative analyzes the impact of ITF, SMF and EAF on TPDG.

### 4.1. The Result of Semi-Structured Interviews

Semi-structured interviews is conduct with nine teachers and administrators, five educational experts, and three education authority personnel. We perspectives on current PD practices and needs for junior high school language teachers in Anhui Province. Participants consistently emphasized the importance of PD in enhancing teachers' pedagogical content knowledge, particularly in fostering students' language literacy and integrating technology, including emerging tools like GenAI. However, while teachers were generally perceived as possessing solid foundational knowledge, concerns were raised regarding insufficient opportunities for pedagogical innovation, research engagement, and effective integration of technology into instruction. Participants also highlighted the need for improved classroom management strategies and more effective student interaction techniques among some teachers. Furthermore, interviewees identified several key areas for improvement in supporting teacher PD. These included providing sustained professional learning opportunities (e.g., workshops, expert lectures, online resources), establishing mentorship programs, fostering collaborative platforms for knowledge sharing and joint lesson planning, and implementing robust feedback and evaluation mechanisms. Participants also emphasized the importance of adequate resources (e.g., funding, materials, technology) and a supportive school culture that values reflection and continuous improvement. Finally, promoting social recognition of teachers' professional contributions was deemed crucial for enhancing teacher morale and motivation for professional growth.

### 4.2. The Demographic Data of the Respondents

This study collected a total of 598 data, we delete the samples with too short answer time and the samples with exactly the same answers, and eliminated a total of 33 samples. Finally, we leaving 565 valid samples with a sample efficiency of 94.5%. The information characteristics of the valid samples are shown in Table 1. We can see female respondents is twice more than male, most of respondents are teachers, and respondents with Bachelor's degree is the vast majority.

**Table 1.**  
Characteristics analysis of demographic samples.

Variable	Item	Frequency	Percent
Gender of respondents	Male	173	30.62
	Female	392	69.38
Position	Administrator	146	25.84
	Teacher	419	74.16
Age of respondents	under 25 years old	107	18.94
	25 - 29 years old	133	23.54
	30 - 39 years old	140	24.78
	40 - 49 years old	107	18.94
	50 years or older	78	13.80
Respondent's highest educational background	Secondary education	22	3.89
	Bachelor's degree	380	67.26
	Master's degree	118	20.88
The work experience of the respondents	Doctoral degree	45	7.97
	under 5 years	170	30.09
	6-10 years	146	25.84
	11-15 years	64	11.33
	16-20 years	79	13.98
	More than 20 years	106	18.76

#### 4.3. The Descriptive Analysis and Result of EFA

The structural equation model proposed in this study includes TPDG, ITF, SMF, EAF, with 24 sub-dimensions and 72 question items, the descriptive analysis is shown in Table 2. The result indicates that respondents' TPDG, ITF, SMF and EAF at medium to high levels.

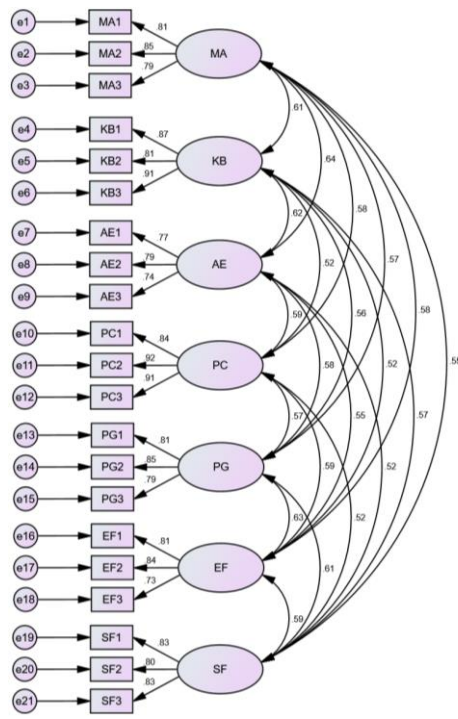
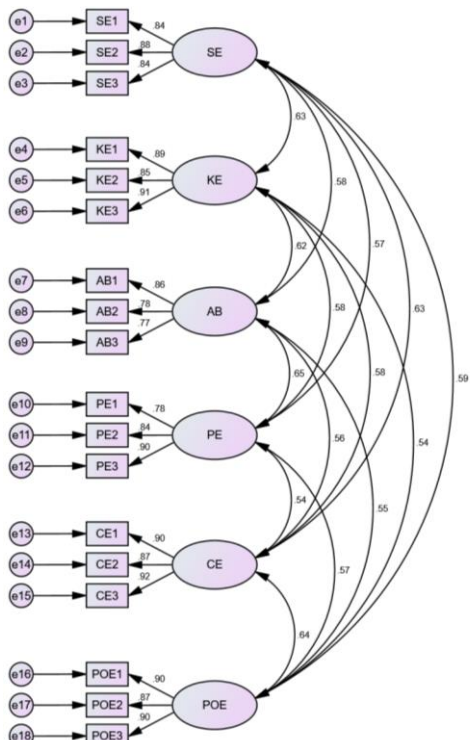
**Table 1.**  
Descriptive analysis of TPDG, ITF, SMF and EAF.

	N	Minimum	Maximum	Mean	Std. deviation	Skewness	Kurtosis
TPDG	565	1.00	4.89	3.442	0.789	-0.642	0.057
SE	565	1.00	5.00	3.576	1.036	-0.592	-0.656
KE	565	1.00	5.00	3.431	1.016	-0.317	-0.746
AB	565	1.00	5.00	3.266	0.921	0.083	-0.378
PE	565	1.00	5.00	3.377	0.936	-0.017	-0.321
CE	565	1.00	5.00	3.522	1.082	-0.445	-0.772
POE	565	1.00	5.00	3.478	1.058	-0.428	-0.648
ITF	565	1.05	4.86	3.695	0.742	-0.981	0.235
MA	565	1.00	5.00	3.741	0.963	-0.928	-0.129
KB	565	1.00	5.00	3.738	1.026	-0.701	-0.504
AE	565	1.00	5.00	3.729	0.901	-0.781	-0.200
PC	565	1.00	5.00	3.704	1.045	-0.745	-0.333
PG	565	1.00	5.00	3.691	0.959	-0.880	-0.010
EF	565	1.00	5.00	3.628	0.993	-0.735	-0.486
SF	565	1.00	5.00	3.635	0.965	-0.718	-0.179
SMF	565	1.06	5.00	3.526	0.723	-0.817	0.083
LS	565	1.00	5.00	3.607	0.991	-0.620	-0.527
PDO	565	1.00	5.00	3.568	0.953	-0.588	-0.507
RA	565	1.00	5.00	3.642	0.992	-0.699	-0.340
CUE	565	1.00	5.00	3.609	0.990	-0.721	-0.444
PAF	565	1.00	5.00	3.361	0.831	-0.316	-0.020
PS	565	1.00	5.00	3.368	0.909	-0.110	-0.384
EAF	565	1.33	5.00	3.349	0.684	-0.267	0.136
CDI	565	1.00	5.00	3.483	0.908	-0.153	-0.467
PII	565	1.00	5.00	3.428	0.894	-0.047	-0.468
RTSI	565	1.00	5.00	3.264	0.913	0.006	-0.129
SCI	565	1.00	5.00	3.261	0.840	0.093	0.032
EI	565	1.00	5.00	3.310	0.855	0.034	0.116

To test the factor structure of respondents' TPDG, ITF, SMF and EAF, EFA was conducted on the four scales. The KMO values for all scales were greater than 0.7, and Bartlett's test of sphericity was significant ( $p < .001$ ), indicating that the data were suitable for factor analysis. Principal component analysis was used to extract factors, and the maximum variance method was used for factor rotation. In TPDG scale, 6 factors were extracted, with a cumulative variance contribution rate of 83.062%. In ITF scale, 7 factors were extracted, with a cumulative variance contribution rate of 79.257%. In SMF scale, 6 factors were extracted, with a cumulative variance contribution rate of 78.521%. In EAF scale, 5 factors were extracted, with a cumulative variance contribution rate of 74.132%.

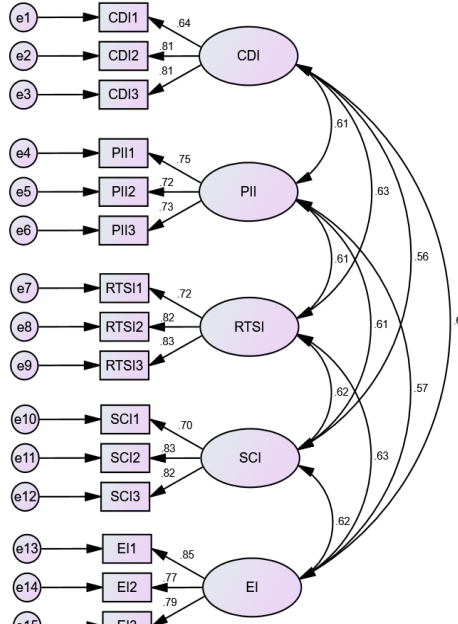
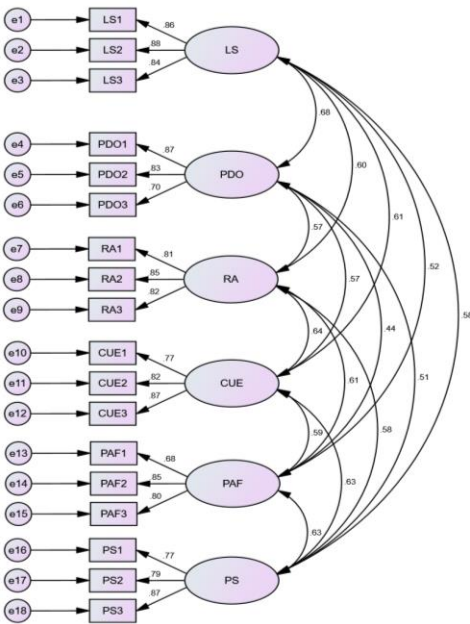
#### 4.4. The result of CFA

We conduct CFA on the TPDG, ITF, SMF and EAF four scales, mainly to verify the convergent validity and discriminant validity of the scale. The model fit indices for each scale were examined to determine the adequacy of the measurement models.



(a) CFA of TPDG scale

(b) CFA of ITF scale



(c) CFA of SMF scale

(d) CFA of EAF scale

**Figure 1.**  
CFA of TPDG, ITF, SMF and EAF scales.

The overall model fit for all four scales was satisfactory. Regarding absolute fit, the  $\chi^2/df$  ratio (e.g. TPDG was 2.275) is below the recommended threshold of 3. The Root Mean Square Error of



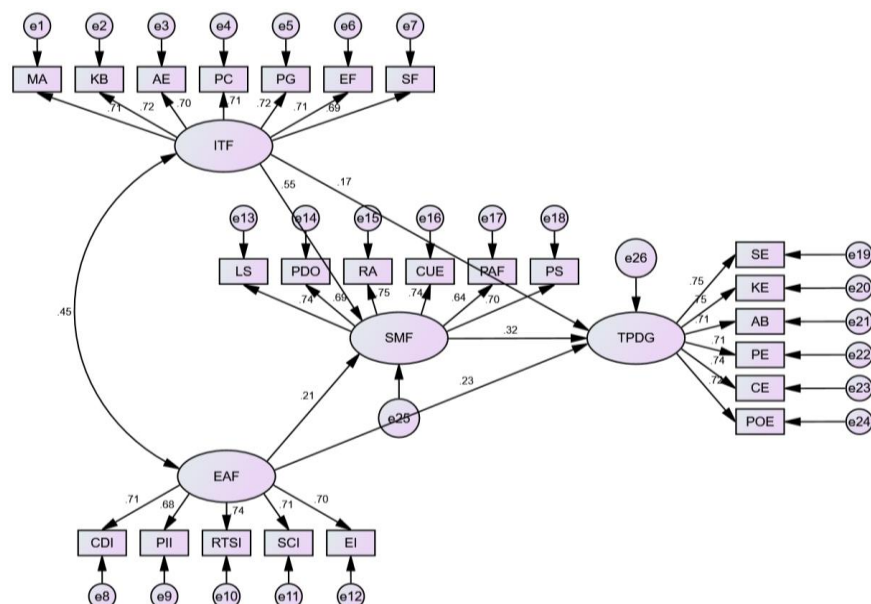
Approximation (e.g. TPDG was 0.048) also below the commonly accepted cutoff of 0.08, indicating good absolute fit. The incremental fit indices demonstrated excellent fit, with the Incremental Fit Index (e.g. TPDG was 0.981), the Tucker-Lewis Index (e.g. TPDG was 0.975), and the Comparative Fit Index (e.g. TPDG was 0.980), all exceeding the 0.9 threshold. The parsimonious fit indices also indicated acceptable fit, with the Parsimony Goodness-of-Fit Index at (e.g. TPDG was 0.668) and the Parsimony Normed Fit Index (e.g. TPDG was 0.758), both above 0.5. These results collectively provide strong support for the adequate fit of the measurement models for all four constructs.

The convergent validity of the scales was assessed using three criteria: standardized factor loadings exceeding 0.5, composite reliability exceeding 0.7, and average variance extracted exceeding 0.5. All standardized factor loadings for the items within each dimension (SE, KE, AB, PE, CE, and POE) were above 0.5. The CR values for all dimensions exceeding the 0.7 threshold. Similarly, the AVE values ranged all above the 0.5 criterion. These results provide strong evidence for the convergent validity of all scales.

Discriminant validity was assessed by comparing the correlations between latent variables with the square root of the AVE for each variable. All inter-construct correlations were lower than the square root of the corresponding AVEs (e.g., for the TPDG scale the correlation between SE and KE was 0.634, while the square root of AVE for SE was 0.852 and for KE was 0.883), indicating satisfactory discriminant validity among all constructs.

#### 4.5. Structural Equation Model

After reliability analysis and confirmatory factor analysis, it was found that the reliability and validity of each variable were good, and the structural equation model could be constructed. We used software to construct the structural equation model shown in Figure 3. The bidirectional arrows in the figure represent the connection relationship between external dependent variables, and the unidirectional arrows represent the causal relationship between external and internal dependent variables. ITF and EAF are independent variables, SMF is the mediating variable, and TPDG is the dependent variable.



**Figure 2.**  
Structural equation model.

CFA demonstrated good model fit for all scales ( $\chi^2/df = 1.79$ , RMSEA = 0.04, IFI = 0.97, TLI = 0.96, CFI = 0.97, PGFI = 0.77, PNFI = 0.83), indicating adequate construct validity. Path analysis revealed significant positive relationships between individual teacher factors (ITF) and both teacher PD group (TPDG) factors ( $\beta = 0.17$ ,  $p < .01$ ) and school management factors (SMF) ( $\beta = 0.55$ ,  $p < .01$ ). Educational authority factors (EAF) also significantly and positively predicted SMF ( $\beta = 0.21$ ,  $p < .01$ ) and TPDG ( $\beta = 0.23$ ,  $p < .01$ ). Furthermore, SMF significantly and positively predicted TPDG ( $\beta = 0.32$ ,  $p < .01$ ). Bootstrap analysis (5000 resamples, 95% confidence intervals) confirmed the mediating role of SMF in the relationship between ITF and TPDG (indirect effect = 0.18, 95% CI [0.10, 0.28]) and between EAF and TPDG (indirect effect = 0.07, 95% CI [0.03, 0.12]), supporting all hypothesized relationships.

## 5. Results of Focus Group Discussions

To validate the findings of the present study, the focus group composed of industry experts, administrators, and junior high-school language teachers. The panel unanimously affirmed the findings related to the positive influence of ITF on teacher PD, noting the increasing importance of language education amidst the pressures of junior high school examinations and the contribution of this research to addressing this under-researched area. The panel also confirmed the significant positive influence of ITF on SMF, validating the reliability of the survey data and the satisfactory model fit. Similarly, the positive impact of EAF on both SMF and TPDG was affirmed, with the panel highlighting the crucial role of administrative support and policy in fostering effective school management and teacher growth. The mediating role of SFM in the relationships between both EAF and TPDG, and between ITF and TPDG, was also validated by the panel, aligning with existing literature on the mediating effects of organizational factors. The panel consensus affirmed the validity and interpretability of the quantitative findings, supporting the reliability and validity of the structural equation model and its potential for broader application within the field.

## 6. Discussion

### 6.1. Current Status of Individual Teacher Characteristics, School Management, and Educational Authority in Anhui Province

The qualitative phase of this study aimed to establish a contextual understanding of the environment in which junior high school language teachers operate in Anhui Province. The interview findings revealed that while teachers generally possess a solid foundation in subject matter knowledge, they face challenges in pedagogical innovation, technology integration (e.g. GenAI), classroom management, and student interaction. This suggests a potential gap between teachers' content knowledge and their pedagogical skills, echoing concerns raised in previous literature regarding the need for more practice-oriented teacher training [21]. Furthermore, the interviews highlighted variations in school-based resources, PD support, and collaborative cultures, as well as the influence of educational authorities through policy, incentives, and social recognition. These contextual factors provided a crucial backdrop for the subsequent quantitative analysis.

### 6.2. PD Level of Junior High School Language Teachers in Anhui Province

Building upon the qualitative insights, the quantitative phase aimed to assess the PD level of junior high school language teachers in Anhui Province. While this study did not directly measure PD level through measures such as student achievement or classroom observations, it indirectly inferred the current status by examining the factors influencing PD. For instance, the quantitative analysis revealed a significant positive relationship between SMF and TPDG, suggesting that stronger school-based support is associated with higher levels of PD. This finding was corroborated by the qualitative data, where teachers expressed a desire for more practical training and resources. This convergence of

findings indicates that while some PD opportunities exist, there remains considerable room for improvement in enhancing teachers' professional capacity.

### 6.3. Influencing Factors on PD of Junior High School Language Teachers in Anhui Province

The quantitative analysis clearly identified key factors influencing teacher PD. First, ITF had a significant positive effect on TPDG, support H1. It highlights the importance of teachers' intrinsic motivation, self-efficacy, and commitment to professional growth. This aligns with research emphasizing the role of teacher characteristics such as organizational citizenship behavior (OCB) [17], the link between PD and teacher performance [22] and the impact of teacher traits and instructional practices on student outcomes [19, 23]. Second, ITF also had a significant positive effect on SMF, support H2. This suggests that motivated and engaged teachers may be more likely to contribute to and benefit from effective school management practices. This finding complements existing research on the influence of teacher characteristics on school climate and organizational effectiveness [24]. While previous studies have examined related concepts such as teacher burnout, self-efficacy, and transformational leadership, our study provides a more holistic perspective by examining the direct impact of individual teacher factors on a comprehensive set of school management factors. Third, EAF had a significant positive effect on both SMF, and TPDG have a significant positive influence on teacher PD, support H3 and H4. This underscores the importance of top-down support from educational authorities in promoting both effective school management and teacher PD. This finding is consistent with research emphasizing the role of policy, resources, and incentives in shaping teacher development [19]. Finally, SMF had a significant positive effect on TPDG, support H5. This highlights the crucial role of school leadership, resources, and a supportive school culture in facilitating teacher growth. This finding is supported by studies that have explored the link between school management practices and teacher PD [25].

The mediating role of SMF was also confirmed. SMF significantly mediated the relationship between ITF and TPDG and between EAF and TPDG, support H6 and H7. These findings emphasize the importance of school management as a crucial link between individual and administrative factors and teacher PD. This aligns with research emphasizing the importance of contextual factors, such as school culture and organizational structure, in influencing teacher development [26]. Our study contributes to current studies by empirically demonstrating the mediating role of SMF within a comprehensive model.

This study also has some limitations. The reliance on self-reported survey data and interviews may introduce potential biases. Future studies could incorporate classroom observations or student achievement data to provide a more objective assessment of teacher PD. Moreover, longitudinal research is needed to examine the long-term effects of different PD interventions on teacher practice and student outcomes.

## 7. Conclusion

This study investigated the PD of junior high school language teachers in Anhui Province, employing qualitative and quantitative mixed-methods design. First, qualitative semi-structured interviews explored teachers' experiences and perspectives regarding their professional growth, illuminating key themes related to individual teacher characteristics, school management practices, and the influence of educational authorities. Second, quantitative survey data were analyzed using SEM to empirically test a proposed PD model. This model emphasizes the interconnectedness of ITF, SMF, and EAF in shaping TPDG. The findings revealed significant positive relationships between these constructs, with SMF playing a crucial mediating role.

This study makes significant contributions to the understanding and enhancement of teacher PD in Anhui Province in two folds. First, it provides an empirically validated model that offers a systematic framework for understanding the complex interplay of factors influencing teacher PD. This model, informed by both qualitative insights and quantitative evidence, offers a more nuanced and comprehensive perspective than previous research by explicitly incorporating the mediating role of

school management. Second, this study offers practical, evidence-based recommendations for various stakeholders. These recommendations, derived directly from the model, provide actionable guidance for individual teachers, school administrators, and educational authorities to implement targeted interventions that promote effective PD and ultimately enhance the quality of language education in junior high schools in Anhui Province. By integrating qualitative and quantitative data and focusing on the crucial mediating role of school management, this study provides a valuable tool for informing policy and practice related to teacher PD.

Building on the present findings, future research could explore several key areas. First, investigate the efficacy of specific PD activities for enhancing language teacher growth within the proposed model. For example, evaluate the impact of varied PD modalities (e.g. workshops, mentoring, online platforms, action research) on targeted teacher competencies and consequential student learning outcomes. Second, longitudinal studies should track the sustained effects of implementing this PD model on teachers' pedagogical practices and students' academic achievement. This longitudinal perspective will ascertain the model's sustainability and scalability within diverse educational contexts. Third, further inquiry should delve into the mediating mechanisms of school management factors. Explore how school leadership paradigms, organizational culture, and resource allocation influence the effectiveness of PD initiatives. Finally, future research could incorporate student perspectives, investigating the perceived impact of enhanced teacher PD on their learning experiences. These potential areas for future research will contribute to a deeper understanding of teacher professional development and inform practice in language education.

### Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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