

## Kurdish EFL Teachers' Expertise and their Students' Achievement: The Mediating Role of Academic Degree, Gender, School Type, and Experience

<sup>1</sup>Bahroz Mawlood

<sup>2</sup>Masoud Khalili Sabet\*

<sup>3</sup>Abdorrezza Tahriri

Research Paper

IJEAP-2511-2174

Received: 2025-11-07

Accepted: 2026-02-14

Published: 2026-02-16

**Abstract:** This study aimed to investigate the relationship between Kurdish EFL teachers' expertise and their students' academic achievement, and how this relationship is influenced by teachers' academic degree, gender, school type, and teaching experience. Teacher expertise was conceptualized as self-perceived cognitive, pedagogical, linguistic, and contextual competencies, measured through a multidimensional questionnaire completed by 135 high school teachers in the Kurdistan Region of Iraq. Student achievement data were obtained for a subsample of 28 teachers using standardized English exam scores. Pearson correlations and multiple regression analyses showed a strong positive association between teacher expertise and student achievement ( $r = .648, p < .001$ ), with expertise significantly predicting achievement beyond the effect of teaching experience. Subgroup analyses revealed that this relationship was strongest among MA holders ( $r = .809, p = .015$ ), female teachers ( $r = .793, p < .001$ ), and public-school teachers ( $r = .662, p = .007$ ). Although private-school teachers reported higher self-perceived expertise, its impact on student outcomes was more pronounced in public schools. Teaching experience significantly predicted expertise but did not independently predict achievement when expertise was included in the model. These findings suggest that self-perceived expertise, above and beyond years of experience and formal qualifications, is strongly associated with EFL achievement. The findings also advance understanding of teacher expertise in under-researched contexts such as Iraqi Kurdistan and highlight the need for policies and professional development systems that prioritize multidimensional expertise in everyday classroom practice.

**Keywords:** Kurdish EFL Teachers, Kurdistan Region, Student Achievement, Teacher Characteristics, Teacher Expertise

### Introduction

Teacher expertise is globally recognized as a key determinant of instructional quality and student achievement across diverse educational contexts (Berliner, 2001; Hattie, 2009; Huang et al., 2023; Kini & Podolsky, 2016). It encompasses a range of competencies, including pedagogical content knowledge, professional development, language proficiency, contextual awareness, learner-centered teaching, and cognitive skills (Anderson & Taner, 2023; Li & Zou, 2021). Together, these parameters contribute to a multidimensional construct that shapes how teachers engage with students and curriculum to improve student learning outcomes (Yazdanmehr et al., 2016). The development and implementation of expertise are influenced by both individual and institutional factors. Academic degree, gender, school type, and teaching experience can shape the opportunities teachers have to build and apply their expertise. Higher academic degrees are often linked to deeper pedagogical understanding (Rice, 2003)

---

<sup>1</sup> PhD Student of ELT, [Bahroz.mawlood@gmail.com](mailto:Bahroz.mawlood@gmail.com); Department of English Language and Literature, Faculty of Literature and Humanities, University of Guilan, Rasht, Iran.

<sup>2</sup> Associate Professor of Applied Linguistics (Corresponding Author), [khalilisabet@guilan.ac.ir](mailto:khalilisabet@guilan.ac.ir); Department of English Language and Literature, Faculty of Literature and Humanities, University of Guilan, Rasht, Iran.

<sup>3</sup> Associate Professor of ELT, [atahriri@gmail.com](mailto:atahriri@gmail.com); Department of English Language and Literature, Faculty of Literature and Humanities, University of Guilan, Rasht, Iran.

and gender may influence how expertise is enacted in the classroom, particularly in language-focused contexts where female teachers may employ more relational and student-centered strategies (Yilmaz & Altinkurt, 2021). Public and private school contexts vary widely in terms of resources, autonomy, and access to professional development (OECD, 2019). Research also suggests that expertise grows with teaching experience, especially when supported by ongoing reflection and training (Donkoh, 2017).

In EFL (English as a Foreign Language) settings, teacher expertise becomes even more critical since effective EFL instruction requires teachers to integrate multiple domains of expertise to meet students' linguistic and cognitive needs (van Dijk et al., 2020). This issue is especially relevant in Iraqi Kurdistan, where English is a compulsory subject from early primary through high school and plays a major role in students' high-stakes exams (Vernez et al., 2014). Despite this emphasis, students' English performance continues to fall below national benchmarks. Institutional reports and diagnostic assessments such as those conducted by Ishik University indicate that many high school students do not reach expected proficiency levels, partly because educators lack formal training in English pedagogy or content knowledge (Avci & Doghonadze, 2017; Vernez et al., 2014).

Although international studies confirm the importance of teacher expertise, there is a noticeable lack of empirical research within the Kurdish EFL context examining how demographic and institutional factors influence this expertise and, in turn, affect student achievement. This study addresses that gap by adopting a quantitative design grounded in Palmer et al.'s (2005) framework to: (1) examine the relationship between Kurdish EFL teacher expertise and their students' achievement, and (2) explore how academic degree, gender, school type, and teaching experience moderate that relationship.

## Review of the Related Literature

### Teacher Expertise and its Impact on Student Achievement

Teacher expertise is a dynamic, multidimensional construct that encompasses theoretical knowledge, practical application, and context-specific adaptability, an understanding that is crucial not only for describing teachers' abilities but also for evaluating how these abilities translate into measurable outcomes (Golding, 2018). Anderson (2023) defines teacher expertise as "an enacted amalgam of learnt, context-specific competencies (i.e., embodied knowledge, skills and awareness) that is valued within an educational community as a source of appropriate practice for others to learn from" (p. 29), and emphasizes that expertise must be understood as enacted in practice rather than merely possessed. In line with this, Hirvela (2020) defines teacher expertise as the beliefs, knowledge, and skills essential for guiding students toward acquiring effective ability in a second language. Numerous other scholars (e.g., Johnson, 2005; Lee & Yuan, 2021; Tsui, 2003) emphasize that teacher expertise is emergent and must be understood as a developmental process as much as a state of accomplishment. A narrower definition provided by Palmer et al. (2005) states that teacher expertise includes four parameters, namely professional degrees, a minimum of three years of experience, peer and stakeholder recognition, and demonstrable impact on student outcomes. Such criteria provide a more holistic framework that helps operationalize the construct in empirical studies.

Teacher expertise encompasses many components, the most widely recognized of which is pedagogical content knowledge, which refers to the teacher's ability to transform subject matter into developmentally appropriate instruction (Mafa-Theledi, 2024). In addition, contextual knowledge, defined as the understanding of the institutional, cultural, and learner-specific factors that influence instruction, is vital for tailoring pedagogy to diverse educational settings (Darling-Hammond et al., 2022). Language proficiency and teacher language awareness further support instructional clarity and learner engagement, especially in EFL contexts, by enabling teachers to model accurate language use and address student needs effectively (Farrell & Richards, 2007; Li & Zou, 2021). The role of professional development has also been emphasized as a key driver of expertise that enables continuous growth through reflection, collaboration, and critical examination of practice (Anderson & Taner, 2023). Other essential components include learner-centered teaching, effective feedback practices, and

lesson planning, all of which contribute to the provision of responsive, inclusive, and high-impact learning environments (Flint et al., 2024). Finally, social recognition, the acknowledgment of teachers' competence by colleagues, students, and school leaders, serves both as an indicator and a reinforcement of expertise which reflect a teacher's status as a trusted and effective practitioner (van Dijk et al., 2020). However, although these components are widely cited, much of the literature relies on self-reported measures of expertise which makes it difficult to determine whether perceived expertise aligns with enacted classroom practice. Moreover, studies differ in how they define and measure expertise, which contributes to inconsistent findings on its relationship with student achievement.

### **Demographic and Institutional Influences on Teacher Expertise**

The development and application of teacher expertise are shaped not only by individual characteristics but also by demographic and institutional variables such as academic degree, gender, school type, and teaching experience. However, the influence of these variables remains challenging to pinpoint, with studies producing conflicting results.

#### **Academic Degree**

Obeka (2021, 2024) found that teachers with higher academic degrees significantly influenced student achievement. However, this pattern is not universal. Kosgei et al. (2013), examining secondary schools in Kenya, found no significant association between a teacher's academic degree and his or her students' learning outcomes. Jacob et al. (2020) argued that PCK is more reliable than credentials. These studies reveal a conceptual conflict: degrees may contribute to expertise, but they do not guarantee impactful teaching unless accompanied by strong pedagogical application.

#### **Gender**

Gender has emerged as a salient variable in teacher effectiveness studies, though its relationship to teacher expertise remains mixed. Wanjiru et al. (2024) found that teacher gender significantly affected student achievement, with gender being the only statistically significant factor among various teacher traits assessed by stakeholders in Kenya. Alnahdi and Schwab (2023), analyzing TIMSS data from Saudi Arabia, found that female teachers had higher positive attitudes and their students rated them higher. These behavioral and attitudinal traits often associated with engagement, care, and responsiveness reflect elements of teacher expertise not captured by technical measures alone. However, other studies present a more cautious view. López-Martín et al. (2023) concluded that gender had the least amount of influence, and Saeed and Akbar (2021) found no significant gender-dependent differences.

#### **School Type**

Several studies suggest that private school environments often offer more favorable conditions for teachers to enhance their expertise due to smaller class sizes, better infrastructure, and stronger systems. Cansız et al. (2019) reported that private schools outperform public ones due to resources. In contrast, Price (2022) and Maxwell et al. (2017) argue that school climate, defined by teacher collaboration, leadership quality, and a sense of belonging, drives achievement. Kisigot et al. (2022) further underscore the role of infrastructure in school-based expertise development, showing that well-resourced environments (e.g., boys-only schools with better facilities) correlate with higher student achievement. Lanre-Babalola et al. (2023) also call attention to disparities in teacher supervision and quality between public and private schools in Nigeria, further suggesting that institutional investment in teacher capacity matters more than school classification alone. The divergence between resource-based and climate-based explanations raises important questions about whether school classification itself matters or whether organizational culture is the true driver of expertise and achievement.

## Teaching Experience

Teaching experience remains one of the most extensively studied variables related to teacher expertise. Keller et al. (2017) and Razaee and Sarani (2017) linked teacher experience with higher levels of PCK and motivational competence, both of which are key components of teacher expertise. Similarly, López-Martín et al. (2023) reported consistent positive effect sizes for teaching experience, especially in developing contexts where disparities in teacher quality are more pronounced, affirming that expertise is often a cumulative process, built through years of trial, feedback, and adjustment. Fischer et al. (2018) and Pourjamal et al. (2018), further support the value of experience, who observed that experienced teachers contributed positively to instructional practices and student learning. However, experience does not consistently predict achievement. Jacob et al. (2020) argued that experience alone does not guarantee instructional expertise unless it is accompanied by active engagement with pedagogy and evolving classroom dynamics. In Kenya, Oguta (2022) used a mixed-methods design to demonstrate that teacher experience significantly predicted academic outcomes in secondary schools, prompting recommendations to enhance experience through school-level policies. Land (2024), using standardized test data from Wisconsin, showed that teacher experience had a more substantial effect on mathematics than on English Language Arts. It's suggested that returns to experience plateau after mid-career unless accompanied by reflective practice and ongoing development which indicates that experience alone is an insufficient proxy for expertise.

## Kurdistan Context: Teacher Expertise and Achievement

Despite global literature, empirical studies in Iraqi Kurdistan remain scarce. Most research focuses on curriculum challenges, resources, motivation, and intercultural issues (Ali & Hamid, 2021; Ismail, 2019; Mawlood & Abbas, 2019; Mawlood et al., 2023). Several recent studies highlight systemic barriers that restrict the development of teacher expertise in the region. These include chronic underfunding of teacher education, outdated credentialing frameworks, lack of supervised practicum experiences, and overcrowded classrooms (Tahir et al., 2025). Even when instructors hold advanced academic degrees, persistent gaps remain in pedagogical execution and cognitive clarity (Mahmood, 2024). Moreover, teacher expertise in the region appears closely linked to relational and contextual factors. For instance, Omar and Qadir (2024) discovered that student evaluations of instructors were influenced more by rapport and interpersonal connection than by objective teaching quality. Technology integration has also emerged as a defining component of modern teaching effectiveness. Ali and Mohammadzadeh (2022) showed that while experienced teachers reported high confidence in traditional pedagogical and content domains, novice teachers exhibited greater adaptability in technology use. Meanwhile, novice EFL teachers face significant adjustment challenges during their induction period, including difficulties managing student relationships, unclear roles, low professional identity, and limited mentorship from supervisors (Amin & Rahimi, 2021). Complementing this, Amin (2018) evaluated the impact of English teacher training courses in Kurdistan, concluding that while such programs were beneficial in familiarizing teachers with the Sunrise curriculum and communicative methods, their long-term impact was uneven. Some teachers found the content misaligned with classroom realities, and others questioned the course's sustainability without follow-up or practical support. Higher education reforms such as the Bologna Process have begun to take root in some Kurdish universities. A study by Amin et al. (2021) revealed that while faculty members expressed support for aligning education with international standards, they emphasized the need for continuous training, better internet infrastructure, and the establishment of oversight bodies to ensure successful implementation.

However, these studies primarily describe challenges rather than empirically testing how teacher attributes translate into student outcomes. Few incorporate multidimensional models of expertise, and none triangulate teacher expertise with actual achievement data. This gap is significant because expertise in Kurdistan is often assumed to be synonymous with teaching experience. The present study, therefore, addresses this gap by applying a multidimensional framework to examine how degree, gender, school type, and experience shape the relationship between teacher expertise and

student achievement in the Kurdistan Region. It is important to mention that almost all empirical studies cited in this review were consulted as primary sources rather than being drawn from secondary reviews.

Building on these considerations, the present research attempts to answer the following research questions:

**Research Question One:** Is there a significant relationship between Kurdish EFL teachers' expertise and their students' achievement?

**Research Question Two:** Does this relationship vary according to teachers' academic degree, gender, school type (private vs. public), and years of teaching experience?

## Methodology

### Design of the Study

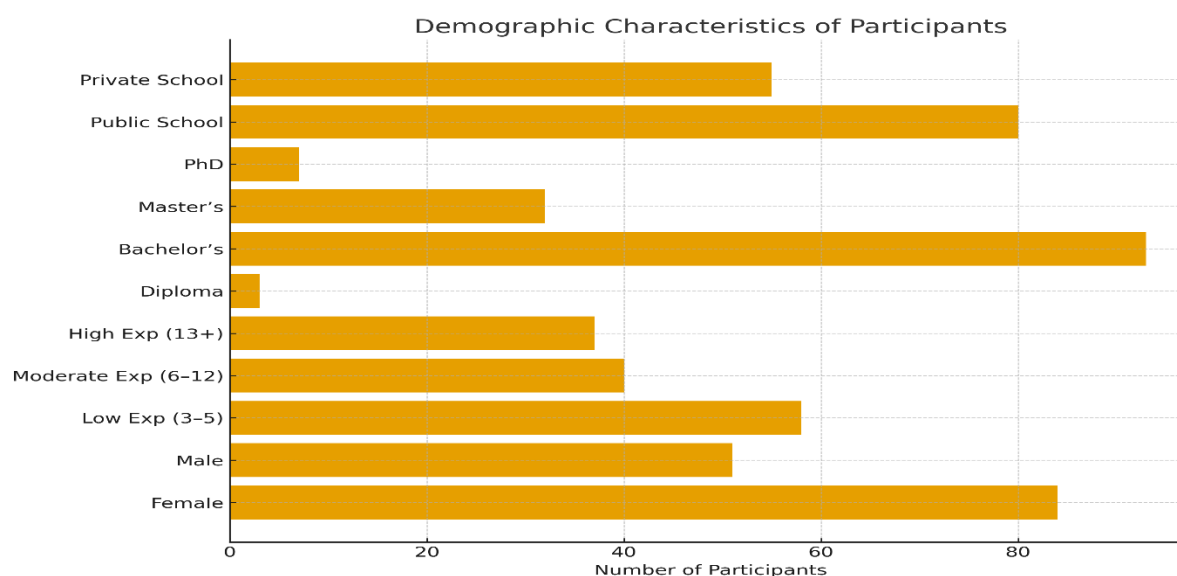
This study used a correlational research design (Creswell & Creswell, 2022) to examine the relationship between Kurdish EFL teacher expertise and student achievement in the Kurdistan Region of Iraq. Consistent with the limits of correlational research, the study explored associations, rather than causal effects, between teacher expertise and student achievement. It also examined whether these associations varied according to academic degree, teacher gender, school type, and years of teaching experience. Correlational designs are widely used in educational research to identify and measure the strength of associations between two variables or more without manipulation (Gall et al., 2015).

### Participants

The participants consisted of 135 Kurdish EFL teachers employed in public and private high schools across the cities of Sulaimani, Erbil, Duhok, and Halabja. The sample size was selected through G\*Power software (version 3.1.9.7) (Faul et al., 2009), which showed that at least 111 participants were needed to achieve 80% statistical power for detecting medium effect sizes in correlation and regression analyses at an alpha level of 0.05. To ensure robustness and allow for non-responses, the sample was increased to 135. A purposive sampling strategy (Ary et al., 2019; Etikan et al., 2016) was used to recruit teachers who met predefined inclusion criteria in Palmer et al.'s (2005) framework of teacher expertise. Teachers were eligible if they:

- had at least three years of teaching experience,
- held a degree in English,
- had positive, documented influence on student performance and
- were recognized by at least one stakeholder group as experienced or competent.

To reach teachers in less accessible areas, snowball sampling (Ary et al., 2019) was also employed. Although all 135 teachers completed the expertise questionnaire, complete student achievement data were obtained for a subset of 28 teachers. Demographic characteristics (gender, school type, degree, and experience) are presented in Figure 1.

**Figure 1***Demographic Characteristics of Participants***Instruments**

Data were collected via a teacher expertise questionnaire and student achievement score records.

*Expert Teacher Questionnaire*

The questionnaire developed by Yazdanmehr et al. (2016) was adopted, translated, and back translated for the Kurdish EFL context. It consisted of 94 items rated on a four-point Likert scale ranging from 0 (Not at all) to 3 (To a great extent). Likert-type scales are widely recognized for their ability to measure perceptions and attitudes in educational research (Boone & Boone, 2012). The instrument measured seven domains of teacher expertise: 1) cognitive skills, 2) contextual knowledge, 3) pedagogical content knowledge, 4) learner-centered teaching, 5) social recognition, 6) language proficiency, and 7) professional development. Because the instrument relies on self-report data, results reflect teachers' perceptions of their expertise rather than direct observations of enacted classroom practices, a limitation noted in interpreting the findings. A pilot study was conducted with 30 Kurdish EFL teachers to refine item clarity and contextual relevance. Following Elangovan and Sundaravel (2021), feedback from participants and expert reviewers was used to translate and confirm clarity of the questionnaire. The final version showed great internal consistency, with a Cronbach's alpha of .95, which is higher than the accepted minimum of .70 for reliability in educational research (George & Mallery, 2019).

*Student Test Scores*

Student achievement was operationalized through standardized test scores from the 2024–2025 academic year. Although these scores provide an objective outcome measure, they capture only exam-based performance and do not represent all dimensions of language proficiency. These scores were obtained directly from high school records, with consent from both the participating teachers and the relevant educational authorities. For each of the 28 teachers included in the analysis, 10 students were selected through systematic random sampling, specifically every third student on the class list (Lohr, 2010), which ensured representativeness and minimized bias.

## Procedure

The data collection procedure was conducted by visiting schools and contacting eligible teachers both through social media and phone calls. The teacher expertise questionnaire, which included a detailed description of the study's purpose, was then administered online via Google Forms which took approximately 20 minutes to complete. To increase participation, the survey link was published through school principals, online teacher groups, and also the schools' communication channels. Participants from the four major cities in the Kurdistan Region, namely Sulaimani, Erbil, Duhok, and Halabja participated in the online questionnaire. Follow-up reminders were done through phone calls and text messages to reduce non-response and participant dropout. In addition to teacher questionnaire responses, permission was obtained from both educational authorities and participants to access student achievement records, and eventually exam scores of the students of 28 teachers for the academic year of 2024-2025 were obtained. A systematic random sampling procedure was applied by selecting every third student on each teacher's class list, taking an average of 10 students per teacher. Student scores were later joined with the corresponding teacher's questionnaire responses for statistical analysis. The school principals and teachers were informed verbally about the purpose, procedures, and benefits of the research prior to their participation. Also, their responses and student records were kept secure and confidential on a protected Google Drive. Because triangulation was not feasible due to school-level restrictions, the study draws solely on questionnaire data and student scores. This limitation is acknowledged in interpreting the findings.

## Data Analysis

Data were analyzed using IBM SPSS Statistics (Version 26). Descriptive statistics, including means, standard deviations, and frequencies, were measured to summarize the characteristics of teacher expertise and student achievement. While these descriptive analyses were conducted for the full sample of 135 teachers, inferential statistical procedures, such as correlation and regression, were conducted only for the 28 teachers whose student scores were obtained. Assumptions for parametric testing were tested and met, following established statistical guidelines (Field, 2018). Normality was assessed through skewness and kurtosis. Multicollinearity was tested using Tolerance and Variance Inflation Factor (VIF) values, all of which fell within acceptable thresholds (Tabachnick & Fidell, 2019). To answer the research questions, Pearson correlation coefficients were carried out to determine the strength and direction of the relationship between teacher expertise and student achievement (Cohen, 1988). Simple linear regression was done to test whether overall teacher expertise significantly predicted student achievement. Subsequently, multiple regression analyses were conducted to explore whether this relationship varied according to academic degree, teacher gender, school type, and years of teaching experience. Effect sizes were explained based on Cohen's (1988) guidelines, where  $r = .10$  is considered small,  $r = .30$  medium, and  $r = .50$  large. Statistical significance was determined at the  $p < .05$  level. Given the correlational design and reliance on self-reported expertise, findings are interpreted as associations rather than evidence of causal influence. The analyses align with the study's exploratory purpose.

## Results

### Descriptive Statistics for the Questionnaire Components and Demographic Comparisons

Descriptive statistics from the teacher expertise questionnaire reveal key trends in Kurdish EFL teachers' self-perceptions across seven components: cognitive skills, pedagogical development, social recognition, contextual knowledge, learner-centered teaching, pedagogical content knowledge, and language proficiency. Cognitive Skills recorded a relatively high mean ( $M = 2.29$ ), suggesting teachers view themselves as competent in areas such as organization and student motivation. Pedagogical Development showed a lower mean ( $M = 1.99$ ), indicating lower self-reported engagement in professional activities rather than actual engagement, which the questionnaire did not measure directly.

Social Recognition ( $M = 2.16$ ) indicates moderate perceptions of being valued, with institutional acknowledgment varying among respondents. Contextual Knowledge achieved a strong mean ( $M = 2.43$ ), highlighting familiarity with school policies, curricular goals, and the broader cultural context. Learner-Centered Teaching ( $M = 2.40$ ) also scored highly, suggesting a strong commitment to fostering autonomy, interaction, and respectful classroom relationships. Pedagogical Content Knowledge ( $M = 2.27$ ) reflects confidence in managing instructional content and supporting understanding. Language Proficiency emerged as the highest-rated component ( $M = 2.47$ ), indicating strong self-perceived confidence in using English for instruction and comprehension.

When examined across demographic categories, distinct patterns emerge at the descriptive level. These differences represent variations in self-perceived expertise rather than demonstrated performance. Gender-wise, male teachers report slightly higher self-ratings in all components, with the largest gaps in language proficiency ( $M = 2.69$  vs.  $2.34$ ) and social recognition ( $M = 2.28$  vs.  $2.08$ ), indicating greater self-confidence, though female responses are more consistent. By school type, private school teachers rate themselves higher overall, especially in pedagogical development ( $M = 2.20$  vs.  $1.85$ ), learner-centered teaching ( $M = 2.53$  vs.  $2.30$ ), and language proficiency ( $M = 2.61$  vs.  $2.37$ ), possibly reflecting stronger institutional support. Regarding academic degree, higher qualifications are linked to higher self-perceived expertise, MA holders surpassed Ph.D. holders in a few domains; however, the data do not permit conclusions about why this occurred, and such patterns should be interpreted cautiously given the small subsample sizes. In teaching experience, highly experienced teachers lead in cognitive skills, contextual knowledge, learner-centered teaching, and social recognition; moderately experienced teachers score highest in language proficiency ( $M = 2.60$ ), and less experienced teachers excel in pedagogical development ( $M = 2.04$ ), suggesting recent training influences developmental engagement. These patterns reflect descriptive associations only and should not be interpreted as developmental stages.

### Inferential Analysis for Teacher Expertise, Student Achievement, and Moderating Variables

This section presents the main findings on the associations between Kurdish EFL teachers' expertise and their students' achievement. No causal interpretations are implied. The results are based on statistical analyses assessing the strength and direction of this association. In addition to the overall relationship, the analyses also examine the potential moderating effects of four variables, academic degree, gender, school type, and teaching experience, on the association between teacher expertise and student achievement.

**Table 1**

*Correlation between Teacher Expertise and Student Achievement*

		Student achievement
Teacher expertise	Pearson Correlation	.648**
	Sig. (2-tailed)	.000
	N	28

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis showed a strong, statistically significant positive association between Kurdish EFL teachers' expertise and their students' achievement scores ( $r = .648$ ,  $p < .001$ ,  $N = 28$ ). This indicates that higher self-reported expertise tends to coincide with higher student scores, but does not establish that expertise causes higher achievement.

The bivariate correlation indicated a strong association between teacher expertise and student achievement ( $r = .65$ ,  $p < .001$ ), corresponding to a large effect size, with expertise explaining 42% of the variance in achievement ( $r^2 = .42$ ). Using Cohen's (1988) guidelines, this represents a large effect ( $f^2 = .72$ ). In the multiple-predictor models, teacher expertise continued to demonstrate medium-to-large standardized effects across all four analyses:  $\beta = .36$  in the academic-degree model,  $\beta = .64$  in the gender model,  $\beta = .57$  in the school-type model, and  $\beta = .71$  in the experience model. In contrast, the additional predictors showed smaller effects: academic degree ( $\beta = .49$ ) and school type ( $\beta = .40$ ) demonstrated

moderate contributions, whereas gender ( $\beta = .09$ ) and teaching experience ( $\beta = .24$ ) showed small or negligible effects. Furthermore, the relationship between Kurdish EFL teacher expertise and student achievement was examined and the results showed that the relationship between the two differs by academic degree (BA, MA, Ph.D.). Table 2 presents the multiple regression results testing teacher expertise and academic degree as joint predictors of student achievement.

**Table 2***Regression Analysis by the Academic Degree*

	Standardized Coefficients Beta	t	Sig.	Correlations			Collinearity Statistics	
				Zero-order	Partial	Part	Tolerance	VIF
(Constant)		8.097	.000					
Teacher Expertise	.364	2.404	.024	.512	.433	.346	.908	1.101
Degree	.491	3.245	.003	.601	.544	.467	.908	1.101

a. Dependent Variable: Student Achievement

Both teacher expertise ( $\beta = .364$ ,  $p = .024$ ) and academic degree ( $\beta = .491$ ,  $p = .003$ ) were statistically significant predictors in the model. Higher expertise and higher degrees were each associated with better student scores (See Table 3).

**Table 3***Correlations between Teacher Expertise and Student Achievement across Academic Degree Levels*

Degree		Teacher Expertise		
BA	Student Achievement	Pearson Correlation	.600*	
		Sig. (2-tailed)	.023	
		N	14	
MA	Student Achievement	Pearson Correlation	.809*	
		Sig. (2-tailed)	.015	
		N	8	
Ph.D.	Student Achievement	Pearson Correlation	.594	
		Sig. (2-tailed)	.214	
		N	6	

\*. Correlation is significant at the 0.05 level (2-tailed).

These findings represent statistical associations and should not be interpreted as showing that degree level causes higher achievement. Correlation analysis showed the strongest associations among MA holders ( $r = .809$ ,  $p = .015$ ), followed by BA holders ( $r = .600$ ,  $p = .023$ ). For Ph.D. holders, the correlation was positive but not significant ( $r = .594$ ,  $p = .214$ ). The stronger correlation among MA holders reflects sample variation rather than systematic differences; with small group sizes, these patterns should be interpreted as exploratory. Moreover, gender was tested as a moderating variable and it affected the relationship between teacher expertise and student achievement. Table 4 presents the regression results with teacher expertise and gender as predictors.

**Table 4***Regression Analysis by Gender*

	Standardized Coefficients Beta	t	Sig.	Correlations			Collinearity Statistics	
				Zero-order	Partial	Part	Tolerance	VIF
(Constant)		6.840	.000					
Teacher Expertise	.644	4.256	.000	.648	.648	.643	.998	1.002
Gender	.094	.624	.539	.126	.124	.094	.998	1.002

a. Dependent Variable: Student Achievement

Teacher expertise was a strong, significant predictor of student achievement ( $\beta = .644, p < .001$ ), indicating that higher expertise was associated with higher scores. Gender was not significant ( $\beta = .094, p = .539$ ), and collinearity statistics confirmed no multicollinearity issues (Tolerance = .998, VIF = 1.002).

**Table 5**

*Correlations between Teacher Expertise and Student Achievement across Gender*

Gender		Teacher Expertise	
Female	Student Achievement	Pearson Correlation	.793**
		Sig. (2-tailed)	.000
		N	20
	Teacher Expertise	Pearson Correlation	1
		Sig. (2-tailed)	
		N	20
Male	Student Achievement	Pearson Correlation	.339
		Sig. (2-tailed)	.412
		N	8
	Teacher Expertise	Pearson Correlation	1
		Sig. (2-tailed)	
		N	8

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 5 shows the Pearson correlations between teacher expertise and student achievement by gender. For female teachers, the relationship was very strong and significant ( $r = .793, p < .001$ ), indicating that higher self-reported expertise was associated with higher student scores among female teachers. For male teachers, the correlation was weaker and not significant ( $r = .339, p = .412$ ). But due to the small male subsample ( $n = 8$ ), these patterns should not be generalized beyond this dataset. Although the regression analysis (Table 4) indicated that gender did not significantly predict achievement when expertise was included in the model ( $\beta = .094, p = .539$ ), the correlation patterns suggest a stronger influence of expertise on student achievement among female teachers.

The analysis also compared the relationship between Kurdish EFL teacher expertise and student achievement in public and private schools. Table 6 presents the regression results examining whether school type influences this relationship.

**Table 6**

*Group Comparison or Moderation Analysis by School Type*

	Standardized Coefficients Beta	t	Sig.	Correlations			Collinearity Statistics	
				Zero-order	Partial	Part	Tolerance	VIF
(Constant)		7.80	.000					
Teacher Expertise	.572	4.308	.000	.648	.653	.562	.964	1.037
Teaching Place	.400	3.00	.006	.509	.516	.392	.964	1.037

a. Dependent Variable: Student Achievement

Teacher expertise was a significant predictor of student achievement ( $\beta = .572, p < .001$ ), and school type also contributed uniquely ( $\beta = .400, p = .006$ ), indicating that both variables showed statistical associations with achievement within this sample, though the design does not allow inferring differential impact. Table 7 shows the correlations for each group.

**Table 7**

*Correlation between Teacher Expertise and Student Achievement across Teaching/Working Place*

Teaching/Working Place		Teacher Expertise	
Public	Student Achievement	Pearson Correlation	.662**
		Sig. (2-tailed)	.007
		N	15

Private	Student Achievement	Pearson Correlation	.620*
		Sig. (2-tailed)	.024
		N	13

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

For public school teachers, a strong and significant positive correlation was found between teacher expertise and student achievement ( $r = .662, p = .007$ ), while private school teachers also showed a significant but slightly weaker correlation ( $r = .620, p = .024$ ), indicating the relationship was marginally stronger in public schools. These differences are small and reflect sample composition rather than meaningful differences.

Finally, for the variable of experience, analysis was carried out to examine whether the relationship between teacher expertise and student achievement differed across three levels of teaching experience grouped as follows: low (3–5 years), moderate (6–12 years), and high (13+ years). Table 8 presents the results.

**Table 8**

*Descriptive Statistics for Teacher Expertise and Student Achievement by Teaching Experience*

Teaching Experience	N	Teacher Expertise (M ± SD)	Student Scores (M ± SD)
Low	12	2.05 ± 0.25	79.69 ± 7.71
Moderate	8	2.40 ± 0.26	87.31 ± 3.51
High	8	2.51 ± 0.17	84.19 ± 2.26

As shown in Table 8, teachers with moderate experience achieved the highest average student scores ( $M = 87.31$ ), followed by high ( $M = 84.19$ ) and low ( $M = 79.69$ ) groups. Expertise scores rose steadily with experience, from  $M = 2.05$  (low) to  $M = 2.51$  (high), indicating that both expertise and achievement generally increased with experience. Multiple regression analysis, with experience coded ordinally (1 = low, 2 = moderate, 3 = high), tested whether experience moderated the expertise–achievement relationship (Table 9).

**Table 9**

*Regression Analysis Predicting Student Achievement from Teacher Expertise and Teaching Experience*

Model	Standardized Coefficients	t	Sig.	Tolerance	VIF
(Constant)		3.492	.002		
Teacher Expertise	.714	4.886	.000	0.464	2.154
Teaching Experience	.244	1.672	.107	0.464	2.154

Teacher expertise significantly predicted student achievement ( $\beta = .714, p < .001$ ), with higher expertise linked to better test scores. Teaching experience, however, was not a significant predictor when considered alongside expertise ( $\beta = .244, p = .107$ ). Collinearity statistics (Tolerance = .464, VIF = 2.154) indicated no multicollinearity.

Teacher expertise significantly predicted student achievement ( $\beta = .714, p < .001$ ), with higher expertise linked to better test scores. Teaching experience, however, was not a significant predictor when considered alongside expertise ( $\beta = .244, p = .107$ ). This indicates that self-reported expertise accounts for more variance in achievement than experience in this dataset, but the direction of this relationship cannot be determined. To further investigate, Pearson correlations were conducted separately within each experience group as shown in Table 10.

**Table 10**

*Regression and Correlation Results for Teacher Expertise, Teaching Experience, and Student Achievement*

Predictor / Group	n	$\beta$ / r	t	p	Tolerance	VIF
Regression Model Predicting Student Achievement						
Teacher Expertise	–	.714	4.886	< .001	.464	2.154

Predictor / Group	n	$\beta$ / r	t	p	Tolerance	VIF
Teaching Experience	–	.244	1.672	.107	.464	2.154
Model Statistics: $R^2 = .627$ , Adjusted $R^2 = .597$ , $f^2 = 1.68$ (large)						
Pearson Correlations by Experience Level						
Low Experience (3–5 years)	12	.636	–	.026	–	–
Moderate Experience (6–12 years)	8	.875	–	.004	–	–
High Experience (13+ years)	8	.729	–	.040	–	–

Across teaching-experience groups, teacher expertise showed significant positive correlations with student achievement (Table 10). The strongest association was found among moderately experienced teachers ( $r = .875$ ,  $p = .004$ ), followed by high-experience ( $r = .729$ ,  $p = .040$ ) and low-experience teachers ( $r = .636$ ,  $p = .026$ ). Because these subsample sizes are small ( $n = 8$ – $12$ ), these correlations should be treated as preliminary.

Descriptively, expertise scores increased with experience, while student scores peaked in the moderate group, suggesting a possible mid-career advantage. To test whether experience contributed uniquely to achievement, teacher expertise and teaching experience were entered simultaneously into a regression model. Teacher expertise significantly predicted student achievement ( $\beta = .714$ ,  $p < .001$ ), whereas teaching experience did not reach significance ( $\beta = .244$ ,  $p = .107$ ). The model accounted for 62.7% of the variance in achievement ( $R^2 = .627$ ), representing a large effect size ( $f^2 = 1.68$ ). These findings suggest that enacted expertise explains more variance in achievement than years of service, although causality cannot be inferred from the present design. All findings represent statistical associations based on correlational analyses. Given the reliance on self-reported expertise, small subsample sizes, and the absence of observational or triangulated data, the interpretations remain exploratory and should be treated as hypotheses for future research rather than causal claims.

## Discussion

This study aimed to explore the relationship between Kurdish EFL teacher expertise and student achievement and to test how this relationship changes across academic degrees, gender, school type, and teaching experience. The results showed a strong and statistically significant positive correlation between teacher expertise and student achievement which indicates a substantial association between self-reported expertise and student test scores in this sample. Using Pearson correlation ( $r = .648$ ), teacher expertise accounted for approximately 42% of the variance in student achievement which represents a large effect size (Cohen, 1988). In doing so, the study is consistent with well-established global findings but also provides a region-specific contribution by situating these results within the sociocultural and institutional realities of the Kurdistan Region (UNESCO, 2021). However, given the correlational design, these findings should be interpreted as associations rather than causal effects.

### The Role of Teacher Expertise in Student Achievement

The primary finding, a strong positive correlation ( $r = .648$ ,  $p < .001$ ) between teacher expertise and student test scores, aligns with a wealth of international evidence asserting that teacher expertise is a critical determinant of student success (Coenen et al., 2018; López-Martín et al., 2023; Podolsky et al., 2019). These converging findings support the argument that effective teaching is not merely a function of experience or degree, but a result of a multidimensional set of competencies, including pedagogical content knowledge (PCK), cognitive skills, contextual understanding, and learner-centered practices (Jacob et al., 2020; Mafa-Theledi, 2024). From a theoretical standpoint, this finding resonates with Shulman's (1987) conceptualization of PCK, where the integration of content mastery with pedagogical strategy forms the foundation of impactful teaching. It also aligns with Palmer et al.'s (2005) framework, which positions expertise as an interplay of knowledge, reflective practice, and adaptive decision-making (Darling-Hammond et al., 2020). These findings are particularly relevant to the Kurdish context, where teacher placement and evaluation often rely on proxies such as years of service

or academic degree. The strong statistical association found here suggests that deeper attention should be given to measurable aspects of enacted expertise, especially those that relate to classroom practice, learner engagement, and adaptability in resource-limited settings (OECD, 2020). At the same time, the correlational nature of the data means that stronger expertise could be both a cause and a consequence of working in higher-achieving classrooms; alternative explanations cannot be ruled out.

Across the seven domains of expertise measured, Kurdish EFL teachers demonstrated notable strengths in contextual knowledge, learner-centered teaching, and language proficiency. These findings reflect a strong orientation toward relational and responsive pedagogy, consistent with sociocultural models of teacher expertise that emphasize the integration of interpersonal sensitivity and instructional skill (Johnson, 2009; Shulman, 1987). For example, high scores in showing care and respect ( $M = 2.62$ ), understanding school goals ( $M = 2.68$ ), and grammar explanation ( $M = 2.56$ ) illustrate a professional identity grounded in both pedagogical empathy and linguistic competence as perceived by the teachers themselves.

However, areas such as pedagogical development and deep instructional design were rated comparatively lower. Limited participation in action research ( $M = 1.80$ ), ELT conferences ( $M = 1.73$ ), and support groups ( $M = 1.72$ ) suggests persistent constraints in engaging with structured professional learning. This mirrors findings from Alibakhshi and Dehvari (2015), who identified institutional barriers to teacher development in similar EFL contexts. Such patterns suggest, but do not prove, that systemic constraints on professional learning hinder the development of enacted expertise. Engida et al. (2024) likewise note an underinvestment in innovation and research-based teaching practices in under-resourced EFL settings, a challenge that appears relevant to the Kurdish context as well.

### **Moderating Variables in the Relationship Between Teacher Expertise and Student Achievement**

All subgroup results reported below represent associations within relatively small subsamples and should be interpreted cautiously as exploratory patterns rather than definitive group differences.

#### **Academic Degree**

The relationship between teacher expertise and student achievement varied significantly across academic degree levels. The strongest effect was observed among MA holders ( $r = .809$ ), followed by BA ( $r = .600$ ) and Ph.D. holders ( $r = .594$ ). Regression analysis further confirmed that academic degree significantly contributed to student outcomes alongside teacher expertise ( $\beta = .491$ ,  $p = .003$ ). This finding resonates with Obeka's (2021, 2024) Nigerian studies, which showed that professionally trained teachers with higher academic degrees positively influenced English performance. Similarly, Koirala et al. (2020) and Ajadi (2020) highlighted that advanced degrees can enhance teaching effectiveness, particularly when combined with ongoing professional development. However, studies such as Drouet et al. (2023) and Mpiti et al. (2025) questioned the efficacy of formal degrees in isolation, emphasizing instead the importance of enacted knowledge and instructional behavior. One possible explanation is that MA holders currently have more opportunities than other groups to link their formal qualifications with ongoing pedagogical development whereas some Ph.D. holders are more involved in research or administrative roles. The findings underscore that academic degrees, while important, must be coupled with pedagogical development and reflective practice to yield tangible improvements in student outcomes. Future studies could formally test these hypotheses by combining survey data with classroom observations and detailed records of professional development participation. Policy frameworks in the Kurdistan Region could therefore link degree completion with mandatory, practice-oriented professional development cycles, ensuring that formal degrees translate into classroom impact (Darling-Hammond et al., 2017; OECD, 2021).

#### **Gender**

While the multiple regression showed that gender did not significantly predict the relationship between teacher expertise and student achievement ( $\beta = .094$ ,  $p = .539$ ), the subgroup correlation analysis

revealed that female teachers exhibited a much stronger association ( $r = .793, p = .000$ ) compared to males ( $r = .339, p = .412$ ). This supports findings by Wanjiru et al. (2024) and Alnahdi and Schwab (2023), who found gender differences in perceived effectiveness and student outcomes, often in favor of female teachers. However, López-Martín et al. (2023) and Saeed and Akbar (2021) concluded that gender had minimal or no effect on student achievement. In the Kurdish EFL context, cultural norms around teacher-student rapport may also intersect with gender expectations, potentially amplifying these patterns (Abdulrahman, 2018). Because this study did not measure classroom interaction, such interpretations are speculative and should be treated as hypotheses for future mixed-methods research. Similarly, coursebook analyses across Middle Eastern contexts reveal that gender representation in instructional materials often reflects and reinforces societal expectations (Dahmardeh et al., 2025). However, the lack of statistical significance in the regression model proposes that expertise, regardless of gender, remains the more robust predictor of student success, supporting gender-neutral recruitment policies that prioritize demonstrable expertise while recognizing that gendered interaction styles could inform teacher training (UNESCO, 2021).

### School Type

Teacher expertise had a statistically significant and positive association with student achievement in both public ( $r = .662$ ) and private ( $r = .620$ ) schools. Regression analysis indicated that school type also contributed significantly to student outcomes ( $\beta = .400, p = .006$ ) which suggests a moderating effect. These findings are broadly consistent with studies that highlight both resource differences and school climate factors (Cansız et al., 2019; Maxwell et al., 2017; Price, 2022), but the present design does not allow us to determine whether it is school type, school climate, or unmeasured intake characteristics that account for the observed patterns. It is possible that expertise compensates for resource limitations in public schools, but this should be tested using measures of school climate and student characteristics.

### Teaching Experience

Teaching experience did not prove to be a significant predictor of student achievement in the regression model ( $\beta = .244, p = .107$ ), but correlation analysis showed significant positive relationships across all experience levels. The strongest correlation was among moderately experienced teachers ( $r = .875$ ), followed by high ( $r = .729$ ) and low ( $r = .636$ ) groups. This mirrors findings from López-Martín et al. (2023) and Fischer et al. (2018), who noted that mid-career teachers often achieve the highest impact due to a balance of experience and adaptability. Coenen et al. (2018) and Ajadi (2020) also found that the influence of experience peaks during the early-to-mid-career stage and diminishes thereafter. These results challenge the notion that more years automatically mean better teaching, which supports the arguments by Jacob et al. (2020) and Papay and Kraft (2015) that professional growth, reflective practice, and continuous development influence impactful teaching. However, given the small group sizes and correlational design, it is not possible to determine whether mid-career status itself enhances impact or whether other unmeasured factors (e.g., assignment to particular schools or classes) are responsible. Future research could examine these hypotheses using larger samples and multi-level models that incorporate both teacher- and student-level variables.

### Conclusion and Implications

As the findings of the present study demonstrate, teacher expertise plays a central role in shaping students' English language achievement in Kurdish high schools. Expertise, understood as a multidimensional construct encompassing pedagogical content knowledge, contextual understanding, learner-centered instruction, and language awareness, proved to be a stronger predictor of student achievement than traditional indicators such as academic degree or years of service. This reinforces the notion that effective teaching is rooted not only in qualifications but also in how knowledge is enacted in everyday classroom practices. In EFL contexts such as the Kurdistan Region where language learning occurs primarily in formal classroom settings and teachers remain the main source of comprehensible input, recognizing and developing this expertise becomes even more critical.

At the same time, the findings should be interpreted with caution due to several limitations. Teacher expertise was measured through self-report, which may not fully reflect enacted teaching behaviors, and student achievement relied on exam scores that represent only one dimension of language proficiency. Moreover, learner-level factors such as prior achievement or socioeconomic background were not controlled, making it possible that part of the variance attributed to expertise reflects pre-existing differences among students or schools. The study was also restricted to high school teachers who met specific eligibility criteria and examined only four demographic moderators, which limits the generalizability of the findings.

Future studies should combine observations, learner data, and longitudinal or mixed-methods approaches to better capture how expertise is enacted in classrooms. The exploratory subgroup patterns identified in this study such as the stronger associations among MA holders, female teachers, and mid-career educators should be treated as hypotheses to be examined systematically in larger, more diverse samples. Studies that incorporate school-level factors such as climate, leadership, and resource allocation would further clarify the contextual conditions that support or constrain the development of teacher expertise.

Improving EFL outcomes in the Kurdistan Region ultimately requires sustained investment in teacher professional development. Programs should go beyond credential-based expectations and focus on practice-based learning, reflective teaching, and opportunities for ongoing pedagogical growth, particularly for mid-career teachers who appear to show strong potential for instructional impact. Educational leaders and policymakers must recognize that years of experience or degree attainment alone do not guarantee effective teaching; rather, it is the quality of enacted expertise that shapes student learning. Strengthening this expertise through targeted professional learning, supportive school environments, and clearer standards for instructional practice can contribute substantially to improving English language learning across both public and private schools in the region.

### Acknowledgements

The authors would like to express their deepest thanks to the English language teachers and school administrators in Sulaimani, Erbil, Duhok, and Halabja cities who generously contributed their time and support to this study.

### Declaration of Conflicting Interests

The authors declare that there are no conflicts of interest associated with this research, its authorship, or its publication.

### Funding Details

This research received no specific grant from any funding party.

### References

- Abdulrahman, B. S. (2018). A functional perspective on gender associated patterns in Kurdish EFL university students' conversational performance. *The Eurasia Proceedings of Educational and Social Sciences*, 11(1), 100–110. <https://www.isres.org>
- Ajadi, T. A. (2020). Teacher qualifications, class size and teaching experience as predictors of achievement in senior secondary school physics in Oyo State, Nigeria. *Papers in Education and Development*, 38(2). <https://journals.udsm.ac.tz/index.php/ped/article/view/4339>
- Ali, S. H., & Hamid, B. A. (2021). Challenges facing English language teachers in the Kurdistan Region of Iraq. *International Journal of English Linguistics*, 11(3), 16–27. <https://doi.org/10.5539/ijel.v11n3p16>

- Ali, S. S., & Mohammadzadeh, B. (2022). Iraqi Kurdish EFL teachers' beliefs about technological pedagogical and content knowledge: The role of teacher experience and education. *Frontiers in Psychology, 13*, 969195. <https://doi.org/10.3389/fpsyg.2022.969195>
- Alibakhshi, G., & Dehviri, N. (2015). EFL teachers' perceptions of continuing professional development: A qualitative study. *Journal of Language Teaching and Research, 6*(2), 312–318. <https://doi.org/10.17507/jltr.0602.09>
- Alnahdi, G. H., & Schwab, S. (2023). The impact of gender differences in teachers' teaching practices and attitudes on students' math and science achievement in Saudi Arabia: Evidence from TIMSS 2019 data. *Frontiers in Psychology, 14*, 1066843. <https://doi.org/10.3389/fpsyg.2023.1066843>
- Amin, M. Y. M., & Rahimi, A. (2018). Challenges faced by novice EFL teachers. *International Journal of Humanities and Cultural Studies, 5*(1). <http://www.ijhcs.com/index.php/ijhcs/index>
- Amin, M. Y. M. (2018). The effectiveness of "Training course for English teachers in Iraqi Kurdistan" and improving teachers' confidence. *International Journal of Humanities and Cultural Studies, 5*(1), 137–150. <https://doi.org/10.1719/IJHCS>
- Amin, O. M., Mohammed, A. M., Sofi-Karim, M., Kakakhan, M. B., Al-Zangana, S., Mohammed, O. A., Hasan, D., Hamasalih, B. M., Bali, A. O., Mohamad, K. K., Mahmood, H. F. D., Mohammed, H. A., Pasha, S. A., Jarallah, B. M., Saeed, I. M. M., Mahmood, S. A., Al-Jaf, S. H., Sidiq, B. O., Taha, R. F., Al-Jaf, H. S. A., Ahmed, M. R., Mahmood, B. R., Ahmed, B. M., Ahmad, P. R., Nori, A. M., & Arkawazi, A. F. (2021). Academic staff's attitude toward the Bologna process and the new pedagogy in the University of Garmian. *Zanco Journal of Pure and Applied Sciences, 33*(4), 38–48. <https://doi.org/10.21271/zjpas.33.4.5>
- Anderson, J. (2023). *Teacher expertise in the Global South: Theory, research and evidence*. Cambridge University Press. <https://doi.org/10.1017/9781009284837>
- Anderson, J., & Taner, G. (2023). Building the expert teacher prototype: A metasummary of teacher expertise studies in primary and secondary education. *Educational Research Review, 38*, 100485. <https://doi.org/10.1016/j.edurev.2022.100485>
- Ary, D., Jacobs, L. C., Irvine, C. K. S., & Walker, D. (2019). *Introduction to research in education* (10th ed.). Cengage Learning.
- Avci, R., & Doghonadze, N. (2017). The challenges of teaching EFL listening in Iraqi (Kurdistan Region) universities. *Universal Journal of Educational Research, 5*(11), 1995–2004. <https://doi.org/10.13189/ujer.2017.051116>
- Berliner, D. C. (2001). Learning about and learning from expert teachers. *International Journal of Educational Research, 35*(5), 463–482. [https://doi.org/10.1016/S0883-0355\(02\)00004-6](https://doi.org/10.1016/S0883-0355(02)00004-6)
- Boone, H. N., Jr., & Boone, D. A. (2012). Analyzing Likert data. *Journal of Extension, 50*(2), Article 48. <https://doi.org/10.34068/joe.50.02.48>
- Cansız, M., Ozbaylanlı, B., & Çolakoğlu, M. (2019). Impact of School Type On Student Academic Achievement. *Education and Science, 44*(197), 275-314. <https://doi.org/10.15390/EB.2019.7378>
- Coenen, J., Cornelisz, I., Groot, W., Maassen van den Brink, H., & Van Klaveren, C. (2018). Teacher characteristics and their effects on student test scores: A systematic review. *Journal of Economic Surveys, 32*(3), 848–877. <https://doi.org/10.1111/joes.12210>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Creswell, J. W., & Creswell, J. D. (2022). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE.

- Dahmardeh, M., Hasan, A. M., Muhammadi, P., & Al-Rashdi, F. (2025). A comparative study of gender representation in EFL coursebooks in the Middle East. *Journal for Multicultural Education*, 19(1), 108–120. <https://doi.org/10.1108/JME-10-2024-0138>
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- Darling-Hammond, L., Flook, L., Schachner, A., & Wojcikiewicz, S. (with Cantor, P., & Osher, D.). (2022). *Educator learning to enact the science of learning and development*. Learning Policy Institute. <https://doi.org/10.54300/859.776>
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute. <https://doi.org/10.54300/122.311>
- Donkoh, S. (2017). Investigating the effect of teaching experience on teacher knowledge. *International Journal of Scientific and Research Publications*, 7(6), 666–670. <http://www.ijsrp.org/research-paper-0617.php?rp=P666498>
- Drouet Arias, M., Elacqua, G., Marotta, L., & Rosa, L. (2023). Does an education major matter for teaching? The relationship between teachers' degree and student achievement. *Inter-American Development Bank*. <https://doi.org/10.18235/0004685>
- Elangovan, N., & Sundaravel, E. (2021). Validity and reliability in social science research. *International Journal of Management*, 12(3), 278–285. <https://doi.org/10.34218/IJM.12.3.2021.025>
- Engida, M. A., Iyasu, A. S., & Fentie, Y. M. (2024). Impact of teaching quality on student achievement: Student evidence. *Frontiers in Education*, 9, Article 1367317. <https://doi.org/10.3389/educ.2024.1367317>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Farrell, T. S. C., & Richards, J. C. (2007). Teachers' language proficiency. In J. C. Richards & T. S. C. Farrell (Eds.), *Professional development for language teachers: Strategies for teacher learning* (pp. 55–66). Cambridge University Press.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage.
- Fischer, C., Fishman, B., Dede, C., Eisenkraft, A., Frumin, K., Foster, B., & Lawrenz, F. (2018). Investigating relationships between school context, teacher professional development, teaching practices, and student achievement in response to a nationwide science reform. *Teaching and Teacher Education*, 72, 107–121. <https://doi.org/10.1016/j.tate.2018.02.011>
- Flint, A., Rubie-Davies, C. M., & Peterson, E. (2024). Teacher views of relationships between their teaching practices and beliefs, the school context, and student achievement. *New Zealand Journal of Educational Studies*, 59, 157–173. <https://doi.org/10.1007/s40841-024-00321-x>
- Gall, M. D., Gall, J. P., & Borg, W. R. (2015). *Applying educational research: How to read, do, and use research to solve problems of practice* (7th ed.). Pearson.
- George, D., & Mallery, P. (2019). *IBM SPSS statistics 26 step by step: A simple guide and reference* (16th ed.). Routledge. <https://doi.org/10.4324/9780429056765>
- Golding, J. (2018). The development of mathematics teacher expertise. *London Review of Education*, 16(3), 460–475. <https://doi.org/10.18546/LRE.16.3.05>

- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.
- Hirvela, A. (2020). Exploring second language writing teacher education: The role of adaptive expertise. In L. Seloni & S. Henderson Lee (Eds.), *Second language writing instruction in global contexts: English language teacher preparation and development* (pp. 13–30). Multilingual Matters. <https://doi.org/10.21832/9781788925877-005>
- Huang, B., Jong, M. S.-Y., Tu, Y.-F., Hwang, G.-J., Chai, C. S., & Jiang, M. Y.-C. (2023). Trends and exemplary practices of STEM teacher professional development programs in K–12 contexts: A systematic review of empirical studies. *Teaching and Teacher Education*, 125, Article 103941. <https://doi.org/10.1016/j.tate.2023.103941>
- Ismail, S. A. A. (2019). The challenges of teaching English language in the Kurdistan Region of Iraq. *Journal of University of Human Development*, 5(3), 67–75. <https://doi.org/10.21928/juhd.v5n3y2019.pp67-75>
- Jacob, F., John, S., & Gwany, D. M. (2020). Teachers' pedagogical content knowledge and students' academic achievement: A theoretical overview. *Journal of Global Research in Education and Social Science*, 14(2), 14–44. <https://ikprress.org/index.php/JOGRESS/article/view/5405>
- Johnson, K. (2005). *Expertise in second language learning and teaching*. Palgrave Macmillan.
- Johnson, K. E. (2009). *Second language teacher education: A sociocultural perspective*. Routledge.
- Keller, M. M., Neumann, K., & Fischer, H. E. (2017). The impact of physics teachers' pedagogical content knowledge and motivation on students' achievement and interest. *Journal of Research in Science Teaching*, 54(5), 586–614. <https://doi.org/10.1002/tea.21378>
- Kini, T., & Podolsky, A. (2016). *Does teaching experience increase teacher effectiveness? A review of the research*. Learning Policy Institute. <https://doi.org/10.54300/625.642>
- Kisigot, C. K., Ogula, P., & Munyua, J. (2022). Relationships of learning environment, school type and secondary school students' academic achievement: Marakwet East Sub-County, Kenya. *International Journal of Humanities Social Sciences and Education*, 9(6), 77–88. <https://doi.org/10.20431/2349-0381.0906008>
- Koirala, K. P., Gurung, G. P., & Wagle, P. (2020). Impact of teacher degree on students' achievement in science. *Journal of Education and Research*, 7(2), 90–106. <https://doi.org/10.3126/jer.v7i2.21219>
- Kosgei, A., Mise, J. K., Odera, O., & Ayugi, M. E. (2013). Influence of teacher characteristics on students' academic achievement among secondary schools. *Journal of Education and Practice*, 4(3), 76–82. <https://api.semanticscholar.org/CorpusID:143103554>
- Land, M. (2024). *The effect of teaching experience on student performance: Evidence from elementary and middle school students in Wisconsin* (Master's thesis, University of Minnesota). AgEcon Search. <https://doi.org/10.22004/ag.econ.348435>
- Lanre-Babalola, F. O., Marcus, O. A., Onyeka, N. C., Adelu, A. O., & Aderemi, T. A. (2023). Nexus between school type and academic performance of students in English language in Nigeria: A case study of some selected secondary schools in Ibadan. *European Journal of Education and Pedagogy*, 4(3), 51–63. <https://doi.org/10.17762/ejeep.v4i3.522>
- Lee, I., & Yuan, R. E. (2021). Understanding L2 writing teacher expertise. *Journal of Second Language Writing*, 52, 100755. <https://doi.org/10.1016/j.jslw.2021.100755>
- Li, W., & Zou, W. (2021). Exploring primary-school EFL teacher expertise in scaffolding: A comparative study. *SAGE Open*, 11(4). <https://doi.org/10.1177/21582440211061574>
- Lohr, S. L. (2010). *Sampling: Design and analysis* (2nd ed.). Brooks/Cole.

- López-Martín, E., Gutiérrez-de-Rozas, B., González-Benito, A. M., & Expósito-Casas, E. (2023). Why do teachers matter? A meta-analytic review of how teacher characteristics and competencies affect students' academic achievement. *International Journal of Educational Research*, 120, 102199. <https://doi.org/10.1016/j.ijer.2023.102199>
- Mafa-Theledi, O. N. (2024). Teachers' pedagogical content knowledge and subject matter content knowledge: Is the framework still relevant for STEM teaching? *International Journal of Research and Innovation in Social Science*, 8(4). <https://doi.org/10.47772/IJRISS.2024.804061>
- Mahmood, R. Q. (2024). Teaching pronunciation in EFL classes: An investigative study among Kurdish EFL teachers. *MEXTESOL Journal*, 48(4), 1–12. [https://www.mextesol.net/journal/index.php?page=journal&id\\_article=377911](https://www.mextesol.net/journal/index.php?page=journal&id_article=377911)
- Mawlood, B. H., & Abbas, A. M. (2019). An investigation into Kurdish EFL instructors' intercultural communicative competence in Sulaimani Province universities. *Journal of University of Garmian*, 6(2), 310–325. <https://doi.org/10.24271/garmian.196224>
- Mawlood, B., Hassaskhah, J., & Abdallah, H. (2023). The effects of age, gender, and experience on grit, anxiety, and commitment of Kurdish EFL secondary school teachers. *Journal of Teaching English Language Studies*, 3(8), 11–42. <https://sanad.iau.ir/Journal/tels/Article/1106719>
- Maxwell, S., Reynolds, K. J., Lee, E., Subasic, E., & Bromhead, D. (2017). The impact of school climate and school identification on academic achievement: Multilevel modeling with student and teacher data. *Frontiers in Psychology*, 8, 2069. <https://doi.org/10.3389/fpsyg.2017.02069>
- Mpiti, V. S., Nanywa, T., & Asaleye, A. J. (2025). Do educators' demographic characteristics drive learner academic performance? Examining the role of gender, qualifications, and experience. *Education Sciences*, 15(4), 487. <https://doi.org/10.3390/educsci15040487>
- Obeka, O. N. (2021). Teachers' qualification as a determinant of students' achievement and attitude towards the English language. *Journal of Research in Humanities and Social Science*, 9(12), 73–81. <http://www.questjournals.org>
- Obeka, O. N. (2024). Influence of teacher degree on students' achievement in English language at the upper basic education level in Ebonyi State, Nigeria. *British Journal of Education*, 12(4), 47–56. <https://doi.org/10.37745/bje.2013/vol12n44756>
- OECD. (2019). *TALIS 2018 results (Volume I): Teachers and school leaders as lifelong learners*. OECD Publishing. <https://doi.org/10.1787/1d0bc92a-en>
- OECD. (2020). *Teachers and school leaders as valued professionals: TALIS 2018 results (Volume II)*. OECD Publishing. <https://doi.org/10.1787/19cf08df-en>
- OECD. (2021). *Teachers' continuing professional learning: Policy and practice*. OECD Publishing. <https://doi.org/10.1787/75f64e08-en>
- Oguta, P. A. (2022). Teacher experience factor impetus on student academic performance. *Journal of Research Innovation and Implications in Education*, 6(1), 141–148. <http://www.jriiejournal.com>
- Omar, R. M., & Qadir, S. M. (2024). Factors associated with student feedback to teachers in quality assurance in Iraqi Kurdistan. *Zanco Journal of Humanity Sciences*, 28(5), 247–263. <https://doi.org/10.21271/zjhs.28.5.16>
- Palmer, D. J., Stough, L. M., Burdinski, T. K., Jr., & Gonzales, M. (2005). Identifying teacher expertise: An examination of researchers' decision making. *Educational Psychologist*, 40(1), 13–25. [https://doi.org/10.1207/s15326985ep4001\\_2](https://doi.org/10.1207/s15326985ep4001_2)
- Papay, J. P., & Kraft, M. A. (2015). Productivity returns to experience in the teacher labor market: Methodological challenges and new evidence on long-term career improvement. *Journal of Public Economics*, 130, 105–119. <https://doi.org/10.1016/j.jpubeco.2015.02.008>

- Podolsky, A., Kini, T., & Darling-Hammond, L. (2019). Does teaching experience increase teacher effectiveness? A review of US research. *Journal of Professional Capital and Community*, 4(3), 286–308. <https://doi.org/10.1108/JPC-12-2018-0032>
- Price, R. (2022). *A causal-comparative study: The effects of school type and school climate on mathematical achievement* (Doctoral dissertation, Liberty University). Liberty University Scholars Crossing. <https://digitalcommons.liberty.edu/doctoral/3504>
- Pourjamal Ghouyjah, H., Sotoudehnama, E., & Faghih, E. (2018). On the impact of teaching experience on EFL instructors' self-assessment of their instructional effectiveness. *Iranian Journal of English for Academic Purposes*, 6(1), 47–70. [https://journalscmu.sinaweb.net/article\\_57819.html](https://journalscmu.sinaweb.net/article_57819.html)
- Rezaee, A. and Sarani, A. (2017). Job Performance of Iranian English Teachers: Do Teaching Experience and Gender Make a Difference? (Research Paper). *Iranian Journal of English for Academic Purposes*, 6(2), 13-22. [https://journalscmu.sinaweb.net/article\\_62750.html](https://journalscmu.sinaweb.net/article_62750.html)
- Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes*. Economic Policy Institute.
- Saeed, A., & Akbar, R. A. (2021). Relationship of teachers' professional skills and students' achievement in English at BA level. *Bulletin of Education and Research*, 43(1), 31–44. <https://www.proquest.com/scholarly-journals/relationship-teachers-professional-skills/docview/2627332527/se-2>
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Tahir, Z., Saleh, R. R., Fadhil, S., Awat, C., & Ibrahim, S. (2025). Pedagogical training in Kurdistan: A critical analysis of present challenges. *Amandemen: Journal of Learning, Teaching and Educational Studies*, 3(1), 117–134. <https://doi.org/10.61166/amd.v3i1.97>
- Tsui, A. B. M. (2003). *Understanding expertise in teaching: Case studies of ESL teachers*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139524698>
- UNESCO. (2021). *Global education monitoring report 2021/2: Non-state actors in education*. UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000379875>
- van Dijk, E., van Tartwijk, J., van der Schaaf, M. F., & Kluijtmans, M. (2020). What makes an expert university teacher? A systematic review and synthesis of frameworks for teacher expertise in higher education. *Educational Research Review*, 31, 100365. <https://doi.org/10.1016/j.edurev.2020.100365>
- Vernez, G., Culbertson, S., & Constant, L. (2014). *Strategic priorities for improving access to quality education in the Kurdistan Region—Iraq*. RAND Corporation. [https://www.rand.org/pubs/research\\_reports/RR649.html](https://www.rand.org/pubs/research_reports/RR649.html)
- Wanjiru, M. L., Bunyi, G., & Itolondo, W. (2024). Influence of teachers' age, gender, and personality on students' academic achievement in Kiswahili: A case of public secondary schools in Murang'a and Kiambu counties. *Journal of Education*, 4(8), 1–14. <https://edinburgjournals.org/journals/index.php/journal-of-education/article/view/397/430>
- Yazdanmehr, E., Akbari, R., Kiany, G., & Ghaffar Samar, R. (2016). Proposing a conceptual model for teacher expertise in ELT. *Theory and Practice in Language Studies*, 6(3), 631–641. <https://doi.org/10.17507/tpls.0603.25>
- Yilmaz, K., & Altinkurt, Y. (2021). Exploring the impact of gender on teachers' instructional leadership and student-centered learning. *Educational Management Administration & Leadership*, 49(3), 459–477. <https://doi.org/10.1177/1741143220924587>