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Research Paper

Exploring EFL Teachers' Cognition of Language Curriculum Through Mixed-Methods Design

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Abstract

A mixed-method approach was employed to inquire about the curriculum's usefulness from Iranian EFL instructors in this study. The 40 educators exhibited an equal gender distribution, a variety of educational backgrounds, and a range of educational experiences (37% held bachelor's degrees and 63% held master's degrees). The results underscored the necessity of facilitating the development of social interaction, collaboration, critical thinking, and other skills in students through a variety of pedagogical approaches, including group work, corrective feedback, and academic support. The investigation investigates the utilization of quantitative and qualitative data to evaluate student development and teaching practices. The method elucidates the impact of various strategies on learning. According to the research, it is recommended that formative evaluations be conducted frequently to monitor student progress. This will facilitate the modification of English teaching methods and the enhancement of outcomes. By incorporating a variety of methodological perspectives, this investigation has the potential to enhance the instructional practices of Iranian secondary schools. In the end, this endeavor will enhance EFL mixed-method research to enhance student learning. The research results establish a framework for enhancing language instruction by employing both theoretical and practical teaching methods.

Keywords: Iranian EFL Teachers, Language Curriculum, Mix-Method Approach, Teachers' Cognition

بررسی شناخت معلمان زبان انگلیسی به عنوان زبان خارجی از برنامه درسی زبان از طریق طراحی روش‌های ترکیبی
در این مطالعه، از یک رویکرد ترکیبی برای بررسی سودمندی این برنامه درسی از مدرسان زبان انگلیسی به عنوان زبان خارجی در ایران استفاده شد. ۴۰ مربی توزیع جنسیتی برابر، پیشینه‌های تحصیلی متنوع و طیف وسیعی از تجربیات آموزشی (۳۷٪ دارای مدرک لیسانس و ۶۳٪ دارای مدرک کارشناسی ارشد) را نشان دادند. نتایج بر ضرورت تسهیل توسعه تعامل اجتماعی، همکاری، تفکر انتقادی و سایر مهارت‌ها در دانش‌آموزان از طریق رویکردهای مختلف آموزشی، از جمله کار گروهی، بازخورد اصلاحی و پشتیبانی تحصیلی، تأکید کرد. این تحقیق به بررسی استفاده از داده‌های کمی و کیفی برای ارزیابی پیشرفت دانش‌آموزان و شیوه‌های تدریس می‌پردازد. این روش تأثیر استراتژی‌های مختلف بر یادگیری را روشن می‌کند. طبق این تحقیق، توصیه می‌شود که ارزیابی‌های تکوینی به طور مکرر برای نظارت بر پیشرفت دانش‌آموزان انجام شود. این امر اصلاح روش‌های تدریس زبان انگلیسی و بهبود نتایج را تسهیل می‌کند. با ترکیب دیدگاه‌های روش‌شناختی متنوع، این تحقیق پتانسیل بهبود شیوه‌های آموزشی مدارس متوسطه ایران را دارد. در نهایت، این تلاش، تحقیقات ترکیبی زبان انگلیسی به عنوان زبان خارجی را برای افزایش یادگیری دانش‌آموزان تقویت خواهد کرد. نتایج این تحقیق، چارچوبی را برای بهبود آموزش زبان با به‌کارگیری روش‌های تدریس نظری و عملی ایجاد می‌کند.

کلمات کلیدی: معلمان زبان انگلیسی به عنوان زبان خارجی در ایران، برنامه درسی زبان، رویکرد ترکیبی، شناخت معلمان



Introduction

Teachers possess vast knowledge and wisdom that is embedded into a sophisticated system of personal and professional knowledge. Over time, this knowledge becomes embedded in the form of beliefs that eventually shape teachers' interpretation, choice, and conduct (Kling et al., 2022). Such beliefs offered the focus for teachers' judgment and classroom practices and reflected both orientations and dispositions with respect to teaching (Megawati et al., 2020).

Whether they are conscious or unconscious, beliefs greatly influence people's actions and thoughts, believes Borg 2001. They are primarily built from education and life experience, adds Johnson 1994. Later in their preparation, teachers tentatively hold beliefs pertaining to learning and teaching, which could be classified into five primary key domains, namely: the nature of teaching, curriculum issues, teacher development, students and for learning. These categories are all linked and related to each other, many times in opposition to each other, confirming the troubled complexity of belief systems (Torres & Santos, 2021). The beliefs are varied, abstract, evaluative, backed by anecdotal evidence, and probably vary in between strength and weakness, being sometimes strong and sometimes weak. Most notably, Richards (1998) believes the strongly held beliefs are most influential on the teachers' actions. During the course of their duties, teachers enter the classroom with such experiences as knowledge, ideas, perceptions, insights, and memories that are used to inform their instructional strategies and learning approaches.

Studies from Abdi and Asadi, 2015; Pajares, 1992; Green, 1971; Pajares, 1992, show that the instructors' inference structures are made up of core and peripheral beliefs. Comparatively to the peripheral type, the core beliefs are more central and exert the most impact on teaching methods.

Burns (1992) interrogated six teachers' views to determine the core principles underlying their language teaching practices. These principles include the nature of language learning, strategies for learning a language, aptitudes of learners, learning environments, and the role of the teacher. They also address spoken and written language in learning relationships (Polat et al., 2021). According to Phipps and Borg in 2009, and Abdi and Asadi in 2015, the views that teachers hold about teaching and learning are influenced by their personal experience. Teachers' beliefs are highly influential in language learning in what and how students learn, their instructional practices. Even though this may not be directly observable in the classroom, the impact affects all design, development, evaluation, and administration of curricular programs, commonly referred to as the curriculum, as indicated by Li, 2020. This gets to the point that the teaching practices and classroom dynamics of teachers are highly influenced by this complex web of beliefs that is embedded with large amounts of knowledge, personal experiences, and professional training. Consequently, it impacts the learning results of students and the overall effectiveness of educational programs.

Understanding these belief systems is essential in developing and modifying teaching methodologies and designing curriculum with the ultimate intent of enhancing practice and students' achievement in language learning environments.

Literature Review

The curriculum is the general framework including principles, approaches, methods, implementation, evaluation, and administration of an educational program (Nunan, 1988). According to Nunan, curriculum development considers needs, objectives, content, materials, assessment, methodology, and evaluation, 1999. Equally, White holds that the elements of the curriculum are method, evaluation, content, and objectives, 1988.

White also reiterates that curriculum design includes goals, resources, and procedures. Thornbury, 2006, concurs and adds that the elements of curricular comprise of content,



instructional strategies, assessment, and goals. Further, according to Richards and Schmidt, a curriculum includes objectives, instructional strategies, as well as assessment. The curriculum has been defined by Richards as the overall conception or shape of a course that turns groups of different coursework into the channel of depicting some kind of specified end. According to what was cited in 2013, Richards feels that every curriculum for language teaching should have three principal parts which are input, process, and output. When language-related content provides input, the strategies of instruction and resources provide the process, and whatever the students will receive or achieve as an end result due to education is the output. Considering the above three dimensions of the language syllabus, it includes the language teaching method, ELT textbooks, and language assessment. ELT textbooks form the backbone teaching material, and the method of teaching is all the methods applied to teach language.

Textbooks are the material source of linguistic input, and the assessment is a yardstick of the input and output of the learners. Therefore, the above three dimensions need to be considered in the integration to achieve the purpose of the program. This study is focused on teachers' views about three fundamental aspects of a curriculum: language teaching methodology, ELT textbooks, and language assessment. Nunan mentions that the curriculum is generally described as needs, objectives, content, materials and assessment, where within the curriculum planning, the methodology and assessment obviously must also be taken into consideration (1999). Related to this, White interprets technique, evaluation, content and purpose to be the four inalienable elements of a curriculum. As she is the famous linguist from the Stanford University, Elsworth (1982) says, "What I cannot do. Moreover, White suggests that within the curriculum design lies tools, resource and objective)]. Thornbury elaborates on this by stating that parts of the curriculum include content, instructional strategy and assessment and the goals of the curriculum. A curriculum, suggests Richards and Schmidt, 2010, includes objectives, instructional strategy and evaluation parts.

As described above, language-related content embodies the input, instructional strategies and resources make the process, and students' outcomes are the output of their education (Johnson & Golombek, 2020). Based on such understanding, a language curriculum should incorporate three significant facets of the language teaching technique, ELT textbooks, and language assessment. ELT textbooks act as the core teaching materials, while teaching methods include various techniques and procedures in language teaching. Textbooks offer learners the linguistic input; and evaluation and assessment assess the outcome of this input in learner output. To put it differently, these three essential elements need to work harmoniously to realize the program objectives.

The present research investigates teachers' perceptions about the three main curriculum elements which are language teaching methodology, ELT textbooks, and language assessment. Study on teacher cognition in relation to the language curriculum Specific to the teaching of EFL in Iran, much scholarly attention has turned to conducting investigations into teacher cognition related to language curricula. This research serves to illuminate not only belief systems, attitude, and practices of the EFL teacher, but it also gives insight into complex interactions between educational policy and classroom practices in relation to student outcomes. Alemi and Sadehvandi (2012) carried out one of the earliest studies whose intent was to ascertain whether Iranian EFL students found the Pacesetter series suitable for their needs or not. Involved in this conference were 64 EFL teachers who had taught for at least three years. A five-point Likert scale was employed in rating issues of the textbook series relative to its effectiveness, design, relevance of content, as well as the appropriateness of language use in it. Conclusions reached by the study indicated that teachers had a positive attitude about the Pacesetter series and felt it would integrate well into an Iranian EFL communicative curriculum.

This study, hence, provides further support for the understanding that the instructional material should be adapted to meet the needs and specific educational goals of Iranian EFL



learners; thereby, optimizing language teaching and learning by the learners in such local contexts. On top of this, Baleghizadeh and Saneie Moghadam (2013) conducted research into the beliefs and practices of three experienced EFL teachers towards how to teach culture at an Iranian language school.

The two main primary data collection sources were voice-recorded class observations and the semi structured interviews, which were all administered eight weeks into the spring term of 2011. The researchers aimed at outlining the discrepancies existing between teachers' behaviors and their attitudes on matters to do with the cultural teaching to see how long-term influences from systemic educational policies and how preferences resulted due to the interaction of the educators and students at their local environment. Their findings indicated that resultant complexities and challenges of integrating cultural content into EFL teaching demand far more resourceful and localized approaches that would blend national curriculum policies and expectations with local cultural realities. Likewise, Rahmani, Hasani and Parhoodeh (2014) explored how 74 Iranian EFL high school teachers perceived the use of class observation and assessment methods. Through administering a questionnaire this study sought to investigate the interplay existing between professionalism experiences by teachers and attitudes of classroom assessment lesson. Noteworthy is the conclusion in the research that generally instructors with experience of below five years were very open-minded on the issue of monitoring and observation in the classroom. At the same time, six to ten years of experience seemed to have significantly decreased participants' attitude toward observation and evaluation. Indeed, it is quite evident that the status of teachers' attitude and perception dynamically change with practical experience gained in the class and the broader educational context. So, more research should be directed to the study of teacher cognition within Iranian EFL contexts. Future research could look into more factors influencing teacher's beliefs and practices, for instance, professional development projects, teachers' collaboration, and use of technology in language teaching.

More importantly, long-term research could enhance a proper understanding of the changes that have occurred in the cognitive processes of the teachers and complement the insightful information about how dynamic the practices are in education circles and how they affect the learning outcome of the students. In a nutshell, it is perceptible that such research in Iranian EFL settings would enrich our understanding of the effective practice of teachers and their professional development needs. This paper, through the investigation of beliefs, attitudes, and instructional practices held by EFL teachers, can facilitate providing policy makers and practitioners with empirically informed policies and practices that foster quality language instruction and sustain little educational benefits for Iranian EFL students. Through ongoing research and cooperation among educators, policy makers, and researchers, we can positively impact the quality and relevance of EFL education in Iran and in the world at large.

Objectives of the Study

This study aims to achieve several specific objectives in exploring the perceptions and practices of Iranian EFL high school teachers concerning curriculum cognition and instructional practices. The objectives are as follows:

To explore the perceptions of Iranian EFL high school teachers regarding curriculum cognition: This objective seeks to delve into how teachers perceive and interpret curriculum content and its delivery within the context of Iranian EFL education.

To examine the instructional practices employed by Iranian EFL high school teachers: This objective focuses on investigating the methods and strategies used by teachers in the classroom to implement and deliver curriculum content effectively.



To identify the factors contributing to effective teaching environments in Iranian EFL contexts: This objective aims to uncover the elements within the educational environment that foster conducive learning atmospheres and support student engagement and achievement.

To evaluate the role of collaborative learning and classroom management strategies: This objective seeks to assess how collaborative learning approaches and effective classroom management strategies contribute to enhancing student participation, interaction, and overall learning outcomes.

To assess the suitability and effectiveness of instructional materials used in Iranian EFL classrooms and propose enhancements: This objective aims to critically evaluate the existing instructional materials, particularly the widely used Prospect book, and suggest improvements to better align with the linguistic and cultural needs of Iranian EFL learners.

Research Questions

This study is driven by multiple research Questions that seek to investigate the perspectives, methodologies, and contextual elements that impact the understanding of curriculum among Iranian EFL instructors in high school. The research inquiries are as follows:

RQ1. What is the perception of Iranian EFL high school instructors regarding curriculum cognition, which encompasses its content, delivery methods, and conformity with educational goals?

RQ2. What teaching methods do Iranian English as a Foreign Language (EFL) high school instructors use to enhance the delivery of the curriculum and improve student learning outcomes?

RQ3. What are the main aspects that contribute to the establishment of supportive and inclusive classroom settings in Iranian English as a Foreign Language (EFL) contexts?

RQ4. How do collaborative learning methods contribute to improving academic performance and promoting interpersonal skills among students in Iranian English as a Foreign Language (EFL) classrooms?

RQ5. What classroom management tactics do Iranian EFL high school teachers employ to effectively maintain discipline and cater to the different requirements of their students?

Methodology

Research Design

The present study employed a qualitative-quantitative research design to address a variety of inquiries and attain the intended objectives. The research design process was guided by an applied framework that encompassed concepts, assumptions, expectations, beliefs, and hypotheses (Maxwell, 2005). This framework informed the design. The framework commences with a general statement of the research problem or topic, which is referred to as the focus of inquiry for the qualitative researcher.

The ongoing necessity to gain a more comprehensive understanding of the English language approach in Iranian institutions is suggested by the general statement of the research topic or problem of this study. The cognitive processes of teachers have a substantial impact on the way in which they conceptualize and execute instruction in the classroom. The results indicate that Iranian English instructors may encounter cognitive obstacles.

Novice researchers should select a research topic that they are sincerely interested in further exploring. The current research topic was selected in part due to the researcher's personal experiences and perspectives regarding specific individuals, locations, or groups. The researcher had a variety of research queries in mind for this investigation.

One of the research questions evaluates the cognitive processes of Iranian EFL high school instructors in relation to the language curriculum. In order to comprehend the experiences,



attitudes, and opinions of participants, the researcher implemented numerous methodologies for data acquisition. Consequently, the primary research question and methodological triangulation were addressed by employing interviews as a research instrument. The Delphi method and interviews have recently disclosed their most recent discoveries.

The researcher employed a mixed-methods approach for this evaluation, which included elements of both qualitative and quantitative research. In mixed methods research, distinct procedures are implemented to capture data, analyze data, and evaluate evidence (Stern et al., 2020). The keyword in this context is "mixed," as it is essential to incorporate information at the appropriate stage of the research process in mixed methods research. Researchers can gain a comprehensive understanding of the research landscape by actively integrating their data by analyzing phenomena through a variety of analytical approaches and lenses (Hong et al., 2018).

In order to gain a more comprehensive understanding of the relationships or distinctions between quantitative and qualitative data, a mixed methods study may be implemented. Furthermore, it facilitates the discussion and exchange of ideas among participants during the research process. Ultimately, mixed methods approach offers a diverse array of research opportunities that contribute to the body of knowledge and facilitate the resolution of research questions. By offering valuable insights into the research issues, engaging with multiple perspectives can enhance academic rigor and enrich the experiences of researchers (Timans, Wouters, & Heilbron, 2019). In the initial stage, the researcher employed interviews, followed by data coding in the second phase. In the third and fourth phases, the researcher applied the Delphi-Fazi methodology.

Participants

A restricted number of participants is typically employed in qualitative research (Mackey & Gass, 2005). The methodology employed in this study was comparable, with 40 EFL instructors, including an equal number of men and women. The participants' ages varied from twenty to thirty-three, with an average age of 25.34. They had been teaching for an average of 5.41 years, with a range of 1 to 15 years. Fifteen of the participants held a bachelor's degree, while twenty-five held a master's degree. All of the degrees were explicitly related to teaching English to foreigners.

The geographical distribution consisted of twenty instructors from Tehran, ten from Karaj, and ten from Lorestan. Twenty secondary school teachers from Lorestan, Karaj, and Tehran comprised the sample, while the remaining participants were drawn from other public secondary institutions.

Instruments

A sophisticated blend of qualitative techniques, including the Teacher Background Questionnaire, Interviews, and the Delphi Method, was implemented in this study's research methodology. The Delphi technique, which is renowned for its ability to elicit expert consensus remotely, was particularly helpful in guaranteeing a thorough data collection procedure. Nevertheless, the Covid-19 pandemic's onset required immediate adjustments as a result of the widespread closure of schools and the implementation of severe restrictions on in-person interactions. As a result, the research protocol was substantially altered to accommodate these unprecedented obstacles.

The researchers promptly transitioned to online methodologies in response to the pandemic's limitations, utilizing virtual interviews and panel discussions that were conducted through social networking platforms. This strategic shift was essential in resolving the health and safety concerns of the study's participants, who were primarily educators, thereby ensuring their



ongoing and active involvement in the research endeavor. In addition to ensuring the integrity of the study's findings, the methodological rigor was upheld by embracing digital platforms, which also facilitated uninterrupted engagement.

The study skillfully navigated the complexities imposed by the pandemic by utilizing the capabilities of virtual communication technologies, thereby ensuring the well-being of its participants and the research process. This proactive approach not only emphasized the researchers' dedication to methodological excellence but also demonstrated their ability to adapt to unforeseen circumstances, thereby strengthening the study's relevance and resilience in a changing research environment.

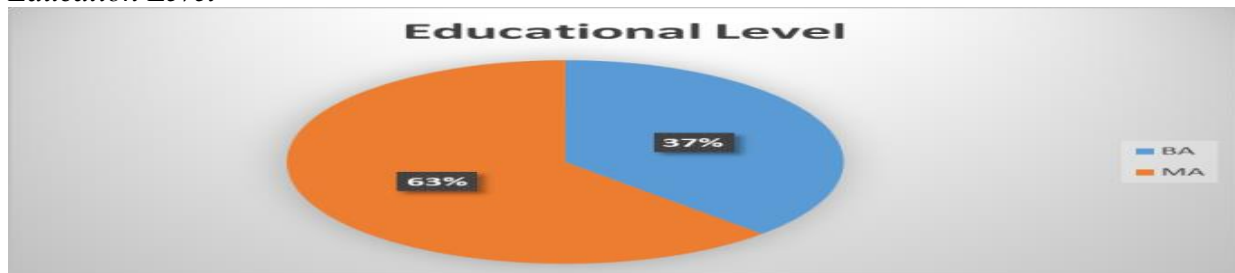
In essence, the study's adaptability and commitment to conducting rigorous and ethically sound research are emphasized by the seamless integration of online methodologies amidst challenging circumstances. This methodological approach not only guaranteed the exhaustive collection of qualitative data but also served as a model for maintaining research integrity and participant engagement during unprecedented global disruptions.

Results

The majority of the teachers in the study held a master's degree (63%), while approximately 37% held a bachelor's degree. The educators involved in the research exhibit a substantial prevalence of higher academic qualifications, as evidenced by this educational distribution.

Chart 1

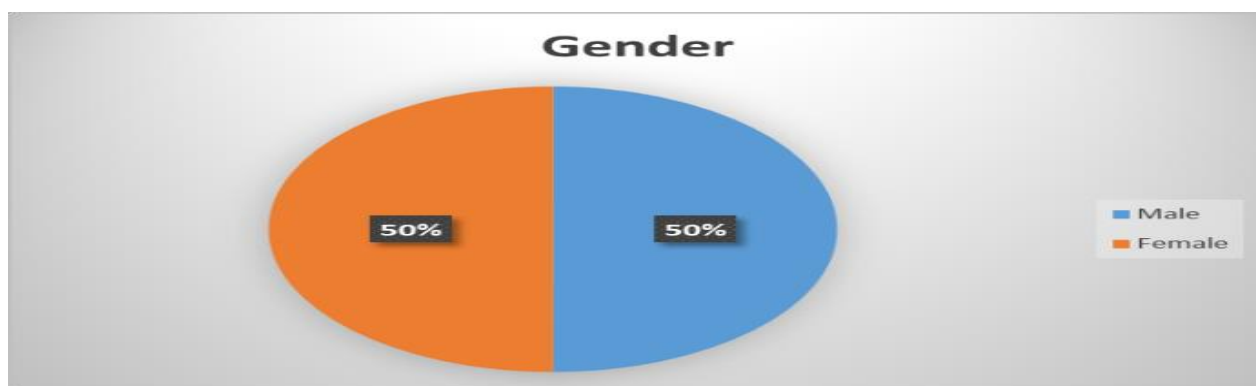
Education Level



The study observed an equal distribution of gender among the teachers, with 50% identified as male and the remaining 50% as female. This balanced representation ensured that gender diversity was maintained within the participant group, reflecting a fair and inclusive approach to the research findings.

Chart 2

Gender

**Table 1***Themes Results in Three Levels*

Inclusive themes	Organizing themes	Basic themes
Curriculum	Interaction	Paying attention to students' learning level
		Pay attention to students' feelings.
		Emotion management
		Motivation
	Book content	Teacher's guide
		DVD / CD
		Language skill level
		Class exercises
		Homework
	Environment of class	Social skills training
		Thinking skills training
		Educational activities in class

Table 2*Identified Factors and Factor Load of Each Variable (Rotating Factor Matrix)*

		Identify The Factors						
Indicator		1	2	3	4	5	6	7
Teacher's handbook	C1	0.764						0.379
DVD / CD	C2	0.752						0.373
Language proficiency level	C3	0.843						
Class activities	C4	0.786	0.335					
Homework	C5	0.661	0.406					
Paying attention to students' learning level	C6		0.793	0.485			0.367	
Pay attention to students' emotions.	C7		0.604		0.411		0.487	
Emotion management	C8		0.716				0.382	
Motivation	C9		0.600				0.457	
Teaching social skills	C10			0.682				
Teaching thinking skills	C11			0.695	0.433			0.318
educational activities in the	C12		0.318	0.734				0.314



classroom					
Lesson Plan	C13				0.731
Use of mother tongue	C14				0.830
The need for homework	C15	0.353	0.327	0.655	
Correction method	C16	0.328	0.308	0.770	
Correction time	C17			0.434	0.692
Evaluation method	C18				0.782
Evaluation time	C19				0.812
Use of technology	C21			0.340	0.703
Use the right training strategy.	C21			0.346	0.748

Figure 1
Values of Factor

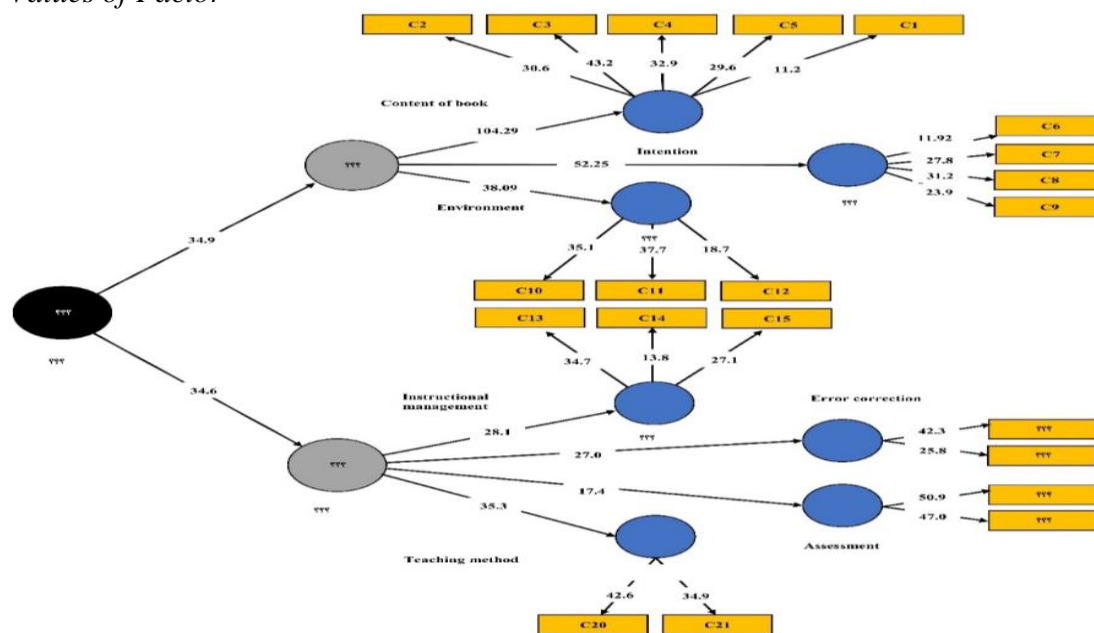


Table 3
Results of Factor Load Values of Observable Variables

Results of Factor Loadings by Observed Variables											
Indicator	First Time					Second Time			Third Time		
	Items		Factor Load	T-Value	P Values	Factor Load	T-Value	P Values	Factor Load	T-Value	P Values
Curriculum	C1	<-	0.690	11.24	0.00	0.940	104.260	0.00	0.833	34.50	0.00
	<hr/>										
	C2	<-	0.850	30.62	0.00						
	<hr/>										
	C3	<-	0.887	43.20	0.00						
<hr/>											
	C4	<-	0.872	32.92	0.00						

Book Content							
C5	<-	0.861	29.60	0.00			
Book Content							
C6	<-	0.736	11.92	0.00	0.821	34.67	0.00
interactio n							
C7	<-	0.868	27.80	0.00			
interactio n							
C8	<-	0.879	31.39	0.00			
interactio n							
C9<- interactio n		0.816	23.95	0.00			
C10	<-	0.872	35.11	0.00	0.877	38.08	0.00
class environm ent							
C11	<-	0.886	37.73	0.00			
class environm ent							
C12	<-	0.817	18.70	0.00			
class environm ent							

The factor load values presented in Table 3 meet the acceptable criteria, indicating a homogeneous measurement model. Specifically, all factor load values surpass the threshold of 0.4, suggesting robust relationships between the observed indicators (items) and their respective latent variables.

In Table 4, the t-statistic values underwent a comprehensive analysis, revealing that all items exceeded the critical threshold of 2.58. This analysis was conducted at a 99% confidence level, providing strong evidence of significant associations between the items and their underlying latent variables. This high confidence level underscores the reliability and validity of the measurement model used in the study, ensuring that the relationships identified are statistically significant and substantively meaningful.

Table 4
Cronbach's Alpha and Composite Reliability

Variable	Dimension	Dimension		Total	
		Cronbach's alpha	Composite reliability	Cronbach's alpha	Composite reliability
Curriculum	Interaction	0.844	0.896	0.935	0.944
	Book content	0.899	0.920		
	Classroom environment	0.822	0.894		



Language pedagogy	teaching method	0.675	0.860	0.878	0.903
	Assessment	0.780	0.901		
	Error correction	0.634	0.845		
	Education	0.728	0.847		
	Management				

The study's tables, specifically Tables 4-14, showcase the results of Cronbach's alpha coefficient and compound reliability analysis. According to the findings, the values of these indexes for all latent variables exceed 0.7. It indicates that the measurement techniques utilized in the research are highly reliable and consistent.

Internal consistency reliability is measured by Cronbach's alpha coefficient, with values greater than 0.7 typically regarded as appropriate for research purposes. Likewise, strong reliability is indicated by compound reliability, which surpasses 0.7 in structural equation modeling and evaluates the dependability of latent variables.

These robust reliability scores, as indicated by the tables, affirm the credibility and dependability of the measurement instruments employed in the study. This reliability is crucial for ensuring the accuracy and validity of the findings, as supported by previous research (Hansler et al., 2011; Hir, 2017), which emphasizes the importance of reliable measurement techniques in empirical studies.

Table 5

Mean of Extracted Variance

		(AVE)	
Indicator	Dimensions	Dimensions amount	Total
Curriculum	Interaction	0.683	0.508
	Book content	0.698	
	Classroom environment	0.737	
Language pedagogy	teaching method	0.755	0.587
	Assessment	0.820	
	Error correction	0.731	
	Education Management	0.651	

The variance values reported in Table 5, calculated based on the latent variables in the study, indicate that all variables exceeded a threshold of 0.5. The mean-variance index was utilized to evaluate the convergent validity of the measurement instruments.

In structural equation modeling (SEM) and related methodologies, convergent validity assesses the extent to which multiple indicators of a latent construct (variable) converge or agree in their measurement of that construct mean-variance index, which contrasts each latent variable's average variance extracted (AVE) with a given threshold—typically 0.5—is a frequently used measure of convergent validity. Suppose the AVE value is more than 0.5. In that case, it indicates that the latent variable that the indicators are meant to measure accounts for a considerable amount of the variance in the indicators. Therefore, the variance values exceeding 0.5 in Table 5 indicate that the measurement instruments used in the study demonstrate satisfactory convergent validity. It strengthens the reliability and validity of the constructs under investigation, assuring that the indicators effectively measure their intended latent variables consistently.

Table 6

Fornell-Larker Test

	Assessment	Error correction	Interaction	teaching method	Book content	Classroom environment	Education Management
Assessment	0.905						
Error correction	0.604	0.855					
Interaction	0.478	0.594	0.827				
teaching method	0.559	0.616	0.542	0.869			
Book content	0.478	0.554	0.774	0.539	0.803		
Classroom environment	0.512	0.622	0.731	0.574	0.735	0.859	
Education Management	0.518	0.707	0.677	0.569	0.610	0.672	0.807

It is clear from Table 6's results that each latent variable's root mean square value (RMS) is higher than the highest level at which it correlates with another latent variable. The Fornell-Larcker criterion was applied to make sure the measurement model had divergent validity.

The average variance extracted (AVE) square root for each latent variable is compared to the correlations between that latent variable and the other latent variables in the model to determine whether it meets the requirements of the Fornell-Larcker criterion. Applying this criterion aids in assessing the degree of separation between latent variables.

Put another way, it indicates that a measurement model has good divergent validity if the RMS values for every latent variable, as listed in Table 6, are greater than the correlations between that variable and others. It indicates that, in terms of what it measures, each latent variable is sufficiently distinguished from the others, thereby bolstering the model's construct validity.

As a result, Table 6's application of the Fornell-Larcker criterion offers assurance that the study's measurement model preserves the proper level of divergent validity. It ensures that every latent variable accurately reflects a unique facet of the construct it is meant to measure and that there is minimal overlap with other constructs.

Table 7
Divergent Validity of Reciprocal Factor Loads

	Assessment	Error correction	Interaction	teaching method	Book content	Classroom environment	Education Management
C1 <- Book Content	0.394	0.461	0.504	0.345	0.690	0.564	0.492
C2 <- content of the book	0.383	0.449	0.610	0.446	0.850	0.597	0.461
C3 <- Book Content	0.337	0.460	0.683	0.493	0.887	0.587	0.494
C4 <- Book Content	0.429	0.449	0.694	0.471	0.872	0.647	0.541
C5 <- Book Content	0.416	0.501	0.719	0.481	0.861	0.672	0.562
C6 <- interaction	0.292	0.467	0.737	0.378	0.538	0.420	0.475
C7 <- interaction	0.396	0.456	0.868	0.417	0.737	0.648	0.548
C8 <- interaction	0.443	0.520	0.879	0.533	0.651	0.631	0.548



C9 <- interaction	0.436	0.526	0.816	0.459	0.617	0.691	0.627
C10 <- interaction	0.427	0.504	0.691	0.505	0.701	0.872	0.624
C11 <- interaction	0.462	0.568	0.619	0.512	0.613	0.886	0.654
C12 <- interaction	0.425	0.535	0.567	0.458	0.572	0.817	0.692
C13 <- Educational Management	0.480	0.567	0.649	0.537	0.622	0.778	0.853
C14 <- Educational Management	0.351	0.573	0.409	0.392	0.298	0.429	0.715
C15 <- Educational Management	0.415	0.575	0.563	0.438	0.530	0.610	0.744
C16 <- Error correction	0.521	0.878	0.564	0.630	0.556	0.636	0.645
C17 <- Error correction	0.513	0.832	0.444	0.410	0.380	0.413	0.560
C18 <- Evaluation	0.909	0.552	0.457	0.525	0.422	0.469	0.490
C19 <- Evaluation	0.901	0.542	0.408	0.486	0.443	0.458	0.448
C20 <- Teaching method	0.532	0.555	0.440	0.877	0.479	0.521	0.495
C21 <- Teaching method	0.436	0.515	0.540	0.860	0.458	0.475	0.494

In order to assess the unique contributions of each item to the measurement model and its differentiation from other variables, we implemented the cross-factor loading indicator in our investigation. This indicator was essential for evaluating the differential validity of our measurement instruments.

Cross-factor loading is the term used to describe the situation in which an item has a higher loading on its designated latent variable than it does on other latent variables in the model. It aids in determining whether each item accurately measures the construct it is intended to represent, while simultaneously preventing a significant amount of overlap with other constructs.

We could identify items that are strongly and uniquely associated with their respective latent variables by analyzing cross-factor loadings. This evaluation guaranteed that our measurement instruments maintained high construct validity, as each item contributed uniquely to its intended measurement without any ambiguity or cross-contamination with other constructs. Consequently, the cross-factor loading indicator was instrumental in verifying the differential validity of our measurement instruments, thereby bolstering the reliability and validity of our findings.

Discussion

The multifaceted investigation of the perceptions and practices of Iranian EFL high school teachers regarding curriculum cognition was facilitated by the integration of quantitative surveys and qualitative interviews, which was an extension of the methodological approach employed in this study. We were able to gain a more comprehensive and nuanced comprehension of how educators navigate their roles within the educational landscape by combining these two research methods. The quantitative surveys offered valuable insights into the frequency and prevalence of specific instructional practices. Simultaneously, the qualitative interviews conducted a more in-depth examination of the fundamental beliefs, motivations, and obstacles encountered by educators in the implementation of these practices.

Using this mixed-method approach, our research illuminated the diverse aspects of curriculum cognition among Iranian EFL high school teachers, revealing a multifaceted interplay

of factors that influence their instructional strategies and decision-making processes. We identified significant themes that emphasized the significance of establishing supportive and inclusive classroom environments, promoting collaborative learning experiences, and implementing effective classroom management strategies. These themes are not only consistent with the existing literature on effective teaching practices, but they also provide distinctive perspectives on the unique context of English language instruction in Iran.

Additionally, our results underscore the necessity of ongoing professional development initiatives that are specifically designed to meet the requirements of Iranian EFL educators. Such initiatives can improve the quality of language instruction in Iranian high schools by providing educators with the requisite knowledge, skills, and resources to enable them to more effectively navigate the complexities of curriculum cognition. Furthermore, our research emphasizes the significance of continuous research and discourse in the field of language education, which cultivates a culture of innovation and inquiry that ultimately benefits both students and instructors.

In a variety of contexts, including Iranian EFL high schools, the educational experiences and outcomes of students are significantly influenced by supportive and inclusive classroom environments. Our investigation explored the extent to which these environments influence learners' holistic development in addition to their academic success. Educators establish environments that promote active participation and engagement among students by cultivating a climate of inclusivity in which diversity is celebrated and all voices are heard. This inclusivity is especially noteworthy in the context of English language education, as students may originate from a variety of cultural and linguistic backgrounds.

Additionally, our results emphasized the importance of supportive classroom environments in the development of critical thinking abilities. Students are more inclined to engage in meaningful discussions, investigate novel concepts, and take intellectual risks when they perceive that they are valued and supported. This aspect of our research is consistent with the existing literature, which consistently identifies supportive environments as a catalyst for academic success and cognitive development.

Our research underscored the critical role of inclusive classrooms in fostering socio-emotional development, in addition to academic achievements. Educators assist students in the acquisition of critical social skills, empathy, and resilience by cultivating a sense of community and belonging. This aspect is especially relevant in the Iranian EFL context, where the learning experiences of students are influenced by the cultural and social dynamics. Consequently, our research broadens the comprehension of effective pedagogical practices by underscoring the fundamental significance of inclusive and supportive classroom environments. Educators enhance academic achievement and develop well-rounded individuals who are capable of flourishing in diverse and interconnected global contexts by prioritizing these elements. In order to guarantee that all students have equitable access to high-quality learning environments that foster their academic, social, and emotional development, it is essential to maintain advocacy and conduct ongoing research on inclusive education.

Our research on Iranian EFL high school settings has demonstrated that collaborative learning is a critical element of supportive classroom environments. Our results emphasize that collaborative strategies not only enhance academic performance but also provide a transformative influence on the development of critical interpersonal skills that are essential for students' future activities. Collaborative learning fosters a sense of mutual respect and collective responsibility among peers by actively engaging students in group activities, discussions, and projects. This participatory approach not only improves students' comprehension of academic content but also cultivates critical thinking, communication, and problem-solving skills.



The Iranian EFL context is profoundly influenced by the concept of collaborative learning, which is emphasized by cultural and educational norms that emphasize the importance of teamwork and collective effort. Our research indicates that students derive substantial advantages from collaborative assignments that foster the exchange of ideas, the negotiation of perspectives, and the cooperation in pursuit of shared objectives. This collaborative spirit not only improves academic performance but also equips students with the necessary skills to confront real-world challenges that necessitate collaboration and cooperation.

Moreover, our research emphasizes that collaborative learning environments foster a more profound connection with educational resources. Through peer explanations, feedback, and shared experiences, students are more likely to develop a more profound comprehension of concepts when they engage in active collaboration. This interactive process cultivates a supportive learning community in which students are encouraged to participate in classroom discussions and take responsibility for their learning.

Consequently, our investigation of collaborative learning in Iranian EFL high schools emphasizes its significance in enhancing the educational experience beyond conventional teaching methods. Educators can establish dynamic learning environments that are essential for the holistic development and future success of students in a globally interconnected world by promoting collaboration, which in turn cultivates both academic excellence and interpersonal skills. It is imperative to maintain the emphasis on collaborative learning in educational practices in order to equip students with the necessary skills to succeed in the ever-changing professional landscapes.

Our research on Iranian EFL high school settings has revealed that conducive learning environments are significantly enhanced by the implementation of effective classroom management strategies. Our research emphasizes the multifaceted nature of effective classroom administration, emphasizing several critical components that contribute to its success. The significance of instructors establishing explicit expectations for student behavior and academic performance is the most critical of these components. Educators establish a structured environment in which students comprehend the expectations from the outset, thereby reducing ambiguity and fostering a sense of accountability.

Additionally, our research emphasizes the importance of upholding discipline in the classroom. This definition of discipline includes the establishment of routines and procedures that facilitate the preservation of order and focus during instructional periods, in addition to the enforcement of rules. A learning environment that is respectful and productive, where students can actively participate in learning activities without interruptions, is guaranteed by the consistent enforcement of behavioral expectations.

The capacity of instructors to respond empathetically to the unique needs and challenges of their students is equally critical to the effective management of the classroom. Our results suggest that educators who exhibit empathy and understanding toward their students cultivate a supportive environment in which students feel respected and valued. Educators can establish a learning environment that is responsive to a variety of learning styles and personalities by recognizing the unique circumstances of students and adopting instructional approaches accordingly.

Furthermore, our research indicates that effective classroom management strategies not only improve the overall learning experience but also enable instructors to perform instruction more efficiently. Teachers can allocate additional time and energy to the facilitation of meaningful learning experiences and the imparting of content when they employ effective management strategies. This proactive approach optimizes students' opportunities for academic development and achievement by minimizing disruptions and maximizing instructional time.



In addition to our investigation of classroom dynamics and management strategies, our research also included an assessment of instructional materials, with a particular emphasis on the Prospect book, which is frequently employed in Iranian EFL high schools. Our research identified significant opportunities to improve these materials in a variety of language skills domains. Our investigation emphasized the necessity for more interactive and culturally pertinent content, despite the fact that the current materials generally align with curriculum objectives.

Instructional materials' effectiveness in language learning is contingent upon their capacity to resonate with and engage learners' linguistic and cultural contexts, in addition to their alignment with educational objectives. Adapting these materials to better align with the unique requirements and preferences of Iranian EFL learners is essential, as our research has demonstrated. Interactive components, including multimedia resources, collaborative learning activities, and culturally sensitive content, can enhance the effectiveness and dynamic nature of instructional materials in the development of language proficiency and acquisition.

Additionally, our research promotes the continuous assessment and improvement of instructional materials to guarantee that they remain pertinent and up-to-date in response to the changing educational environment. Educators can provide students with more comprehensive support in their language learning journey by consistently updating content to reflect contemporary language usage, cultural nuances, and technological advancements. This method not only increases student engagement but also fosters a more profound comprehension and appreciation of the English language in Iranian EFL contexts.

In the final analysis, the development of instructional materials is essential for the cultivation of a learning environment that is both effective and supportive for Iranian EFL learners. Educators can enable students to achieve greater academic success and linguistic competence by investing in the development of pedagogically sound and culturally responsive materials. This strategic adaptation of instructional resources serves to emphasize our dedication to the development of global competencies among learners in a variety of educational environments and the advancement of language education.

This study is a substantial contribution to the mixed-method research methodology, as it demonstrates the effectiveness of combining quantitative surveys with qualitative interviews to investigate complex educational phenomena. Our research achieved a level of depth and richness that exceeds what could have been achieved with either approach in isolation by integrating these two distinct yet complementary methodologies. This methodological approach, which was integrated, not only improved the comprehensiveness of our findings but also emphasized the rigorous and valuable nature of mixed methods in educational research.

Mixed-methods research provides unique benefits in educational settings by enabling researchers to triangulate data from a variety of sources, thereby enhancing the reliability and validity of their conclusions. The quantitative surveys conducted in our study offered quantitative insights into the prevalence and distribution of specific attitudes and practices among Iranian EFL teachers. At the same time, qualitative interviews produced contextually grounded, nuanced narratives that shed light on the underlying motivations and intricacies that influence these practices.

Also, the integration of qualitative and quantitative data facilitated a comprehensive examination of curriculum cognition among EFL educators in Iran. It facilitated a comprehensive comprehension of their instructional strategies, beliefs, and challenges, thereby contributing to a more comprehensive representation of the factors that influence educational practices in this particular context. By employing a mixed-method approach, we not only successfully addressed our research questions but also illustrated the robustness and adaptability of this methodology in the analysis of multifaceted educational phenomena.



In conclusion, this investigation underscores the multifaceted character of curriculum cognition among Iranian EFL high school teachers. It emphasizes the critical significance of culture-relevant instructional materials, effective classroom management strategies, collaborative learning approaches, and supportive classroom environments in improving educational outcomes. We aspire to inform evidence-based educational practices and contribute to ongoing endeavors aimed at improving language instruction across diverse educational settings by advancing our comprehension of these dynamics through mixed methods.

Conclusion

This investigation has illuminated the critical role that teacher cognition plays in the classroom by investigating the continuous professional development of educators and effective teaching dynamics. Our research has extensively examined the perspectives of Iranian EFL (English as a Foreign Language) high school teachers on curriculum cognition, emphasizing their significant impact on the educational experiences and outcomes of their students, in addition to their delivery of curriculum content.

By employing a comprehensive mixed-method approach, this investigation meticulously captured the richness and diversity that are inherent in the instructional practices and beliefs of EFL instructors in Iran. We endeavored to develop a more sophisticated comprehension of the manner in which these educators perceive and execute their responsibilities within the educational framework by combining quantitative surveys with qualitative interviews. This methodological approach enabled us to investigate the scope and depth of their instructional strategies, beliefs, and classroom challenges.

Throughout our investigation, several prominent themes were identified that emphasized the fundamental components that contribute to effective teaching environments in Iranian EFL contexts. The primary focus of these themes was the critical importance of establishing inclusive and supportive classroom environments. Our research consistently demonstrated that these environments are not only conducive to learning but also essential for the nurturing of socio-emotional development, the promotion of critical thinking skills, and the cultivation of student engagement.

The concept of collaborative learning is essential to the efficacy of these environments. We have observed that collaborative approaches not only improve academic performance but also facilitate the development of interpersonal skills that are essential for the future success of students. By fostering a sense of community within the classroom, a cooperative learning approach motivates students to engage actively in their education and engage in meaningful interactions with their peers.

Effective classroom management strategies emerged as critical components in the establishment of conducive learning environments, in addition to collaborative learning. The capacity of teachers to establish clear expectations, maintain discipline, and respond empathetically to students' needs was identified as a critical element of successful classroom management. Not only do these strategies foster a positive learning environment, but they also assist instructors in effectively delivering instruction and managing the diverse needs and behaviors of its students.

Additionally, our assessment of instructional materials, which encompassed the Prospect book, identified potential areas for improvement in a variety of language skills domains. Although the current materials were generally consistent with the curriculum objectives, our results indicated that there was a requirement for more interactive and culturally pertinent content. It necessitates a critical reevaluation of instructional materials to guarantee that they effectively address the linguistic and cultural contexts of Iranian EFL learners, thereby improving their proficiency and engagement in the acquisition of the English language.



Our research promotes the ongoing pursuit of targeted professional development initiatives to improve the cognitive abilities of teachers. Our objective is to enhance the quality of language instruction in Iranian EFL classrooms by providing educators with a more profound understanding of effective instructional practices and encouraging a reflective teaching approach. Professional development programs should not only enhance pedagogical abilities, but also foster a more profound understanding of curriculum frameworks, evaluation methods, and the integration of technology in educational environments.

Moreover, our findings underscore the importance of ongoing research projects and collaborative collaborations in the broadening of our understanding of teacher cognition and its impact on educational practices worldwide. It is essential for researcher, teacher, legislator, and stakeholder dialogue to inform evidence-based practices and policies that promote student learning and achievement due to the complexity of teaching and learning in various educational contexts.

In conclusion, this research has yielded a substantial comprehension of the intricate dynamics of curriculum cognition among EFL high school instructors in Iran. Our objective is to make a substantial contribution to the ongoing enhancement of the multifaceted challenges and opportunities of language instruction, with a focus on enhancing educational outcomes for English as a EFL students in Iran and other countries. We aspire to create learning environments that are more productive, engaging, and diverse, thereby preparing students for success in a world that is becoming increasingly interconnected. This will be achieved by collaborating to enhance faculty and enhance teaching strategies.

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Biodata

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