



Gonbad Kavous University

Teacher-Reported Role of L2 Persian Proficiency in L3 English Learning: A Qualitative Study of Balochi-Persian Bilingual Students in Iran



Linguistics Society of Iran

Farideh Okati^{*1}  & *Vahid Ghafrooi*² 

ABSTRACT

This qualitative case study explores English teachers' perceptions of the role of L2 Persian proficiency in the L3 English learning experiences of Balochi-Persian bilingual students in Sistan and Baluchestan, Iran. Grounded in Cummins' Interdependence Hypothesis, the study draws mainly on semi-structured teacher interviews to examine reported links between Persian proficiency, classroom comprehension, literacy transfer, learner confidence, and English learning difficulties. The findings suggest that, from teachers' perspectives, Persian functions as an important instructional bridge through which students access English explanations, grammatical terminology, and literacy practices. However, the study does not establish direct causal effects. Rather, it identifies teacher-reported patterns indicating that weaker Persian proficiency may be associated with reduced access to English instruction, lower participation, and greater emotional difficulty in English classes. The findings point to the need for early Persian literacy support, balanced multilingual pedagogy, and careful use of Balochi as a supplementary scaffold in bilingual classrooms.

Article History

Received:

2025-8-27

Revised:

2025-9-20

Accepted:

2025-10-27

Published:

2026-1-1

Keywords:Balochi-Persian
Bilingual
Students,
Classroom
Comprehension
,English
Learning, Persian
Proficiency

¹ Corresponding Author: Associate Professor, English Department, Faculty of Humanities, University of Zabol, Zabol, Iran;

ORCID ID: <https://orcid.org/0000-0001-7399-8551>; Email: farideh.okati@uoz.ac.ir; farideh.okati@gmail.com

² MA graduate in TEFL, English Department, Faculty of Humanities, University of Zabol, Zabol, Iran;

ORCID ID: <https://orcid.org/0009-0001-6688-9290>; Email: vahid.ghafrooi@gmail.com

1. Introduction

Bilingualism has been widely recognized as a cognitive and linguistic advantage in language learning, influencing learners' ability to acquire additional languages beyond their first ([Bialystok, 2017](#); [Cenoz, 2013](#)). Research suggests that bilingual individuals often exhibit heightened metalinguistic awareness, which enhances their capacity to grasp linguistic structures in a third language (L3) ([Atouf & Harrizi, 2023](#); [Jessner, 2008](#)). Within the context of Iran, particularly in Sistan and Baluchestan province, a significant number of students are Balochi-Persian bilinguals who must learn English as their third language. Balochi is the mother tongue of the Baloch, who are a mainly tribal people, and seem to be migrating from the north-western part of the Iranian linguistic area to the south-east under the pressure of Arab and Turkish invasions ([Okati, 2012, 2025](#)).

Given that Persian (L2) is the dominant medium of instruction in schools, these students' proficiency in Persian plays a crucial role in shaping their English learning experiences. While previous studies have demonstrated that bilingual learners tend to perform better in phonological and fluency-related aspects of language learning compared to monolinguals ([Lohndal et al., 2019](#); [Garcia Mayo & Rothman, 2012](#)), the complexity of bilingualism varies depending on several sociolinguistic and cognitive factors.

Different bilingual individuals in multilingual communities show different levels of proficiency when speaking their languages. The acquisition of Persian as a second language by Balochi-speaking students in Iran during their childhood results in diverse levels of proficiency. The different levels of L2 Persian proficiency among students create essential questions about how these differences affect their L3 English learning process. Research on bilingual advantages has been conducted in laboratory environments, yet scholars need to study their effectiveness in actual classroom settings where students encounter multiple obstacles from their social environment, educational system and language barriers.

Research on bilingualism and third-language acquisition has often treated bilingualism as a broadly supportive condition for learning an additional language, particularly when bilingual learners are assumed to have relatively stable or balanced proficiency across their two languages ([Cenoz & Gorter, 2015](#); [De Angelis, 2007](#)). This assumption, however, is analytically limited in multilingual educational contexts such as Sistan and Baluchestan, where Balochi-speaking students acquire Persian as a second language under unequal sociolinguistic and educational conditions. In such a context, the central issue is not simply whether bilingual students benefit from knowing two languages. Rather, the more important question is whether their proficiency in Persian, as the dominant language of schooling, is strong enough

to activate the cognitive and metalinguistic advantages usually associated with bilingualism. If Persian proficiency remains weak, bilingualism may not automatically support L3 English learning, because students may lack the instructional and linguistic bridge through which English is explained, practiced, and assessed.

Therefore, the gap addressed in this study is not only the limited number of studies on Balochi-Persian bilingual students, but also the lack of analytical attention to how unequal proficiency within bilingual learners shapes L3 learning outcomes. Previous research has not sufficiently explained how the dominant L2 may function as a threshold condition that either enables or restricts English learning. For Balochi-Persian bilingual students, Persian proficiency may affect English acquisition through several interconnected routes: access to teacher explanations, understanding of grammatical terminology, transfer of literacy and vocabulary knowledge, classroom participation, and learner confidence. This study responds to this gap by examining L2 Persian proficiency as a mediating factor in L3 English learning, while also considering how bilingual teachers may help students move across Balochi, Persian, and English in classroom practice.

This study is theoretically grounded in Cummins' Interdependence Hypothesis ([Cummins, 1979](#)), which is particularly suitable for examining the relationship between L2 Persian proficiency and L3 English learning. The hypothesis argues that proficiency developed in one language can support learning in another language through shared cognitive, academic, and metalinguistic resources. In the present context, this theoretical perspective is especially relevant because Persian is not only the students' second language, but also the official language of schooling through which English is introduced, explained, and evaluated. Therefore, Cummins' framework allows the study to examine whether Persian proficiency functions as a bridge that supports L3 English learning or whether limited Persian proficiency restricts students' ability to benefit from cross-linguistic transfer.

Building on this theoretical position, the study aims to examine how different levels of L2 Persian proficiency shape L3 English learning among Balochi-Persian bilingual students in Sistan and Baluchestan, Iran. More specifically, it focuses on how Persian proficiency may influence students' phonological, grammatical, and communicative development in English, while also considering the factors that contribute to unequal Persian proficiency among these bilingual learners. By shifting attention from bilingual status itself to the functional level of proficiency in the dominant instructional language, the study treats bilingualism as a differentiated educational condition rather than a uniform advantage.

2. Literature Review

2.1. Bilingualism and L3 English Learning in Multilingual Educational Contexts

Bilingualism has been extensively studied in applied linguistics, particularly regarding its impact on third language acquisition (L3A). Researchers such as [Cenoz \(2013\)](#) and [De Angelis \(2007\)](#) suggest that bilinguals possess enhanced metalinguistic awareness, cognitive flexibility, and transferability of linguistic structures, which may influence their ability to learn additional languages. [Cummins' \(1979\)](#) Interdependence Hypothesis posits that proficiency in one language positively affects the acquisition of another, particularly in contexts where typological similarities exist; for this positive effect of proficiency in one language, the work of [Griessler \(2001\)](#), for example, shows supportive evidence for second language proficiency in third language learning. In multilingual societies, inadequate proficiency in English, as the second language, may cause students in universities not to cope with the demands of the academic programs where the medium of education is English, and that may hamper students' progress in the academic courses ([Stander, 2022, 2020](#)). This can be paralleled by the level of proficiency in a second language and its effects on the learning of a third language. A dissatisfactory level of domination on second language may bring about feelings of anxiety and tension, and decrease confidence and self-efficacy while learning.

Iranian Balochi-Persian bilingual students, who navigate between two distinct linguistic systems, provide a compelling case for examining how bilingualism affects English learning. However, studies remain limited on whether Balochi-Persian bilingualism and the proficiency of L2 Persian, the prominent language, serve as a cognitive advantage or disadvantage in acquiring English as the L3.

2.2. Theoretical framework: cross-linguistic influence and bilingual transfer

Bilingual individuals show cross-linguistic influence (CLI) because their knowledge of one language impacts their ability to learn another language, according to [Jarvis and Pavlenko \(2008\)](#). The influence of bilingualism appears through three main areas, which include phonology, syntax and lexical selection. Odlin (1989) explains that language transfer patterns vary because they depend on three main factors, which include linguistic similarity, cognitive load and exposure levels. The process of second language acquisition benefits from reading performance and strategic transfer between L1 and L2, as well as L2 reading performance, as well as motivational factors that affect this transfer. [Liu et.al. \(2023\)](#) demonstrate that reading ability directly transfers to L2 learning, but self-efficacy in reading does not transfer directly. Self-efficacy affects L2 reading performance through multiple indirect routes.

The syntactic structure of Balochi and English shows alignment because of their similar word order, but the absence of the /h/ sound in Balochi creates challenges for Persian L2 pronunciation accuracy ([Ellis, 2008](#)). The Complexity Theory perspective of [Larsen-Freeman \(1997\)](#) supports this view because bilingualism exists as multiple interconnected elements rather than a single cognitive benefit.

2.3. Critical multilingualism, language ideology, and educational equity

While cross-linguistic influence and interdependence theories explain how linguistic resources may transfer across languages, they do not fully account for the social conditions under which multilingual learners gain or lose access to these resources. A critical multilingualism perspective, therefore, helps situate Balochi-Persian bilingual students within wider relations of language hierarchy, educational inequality, and minority-language positioning. In the Iranian context, recent work has shown that language learning is shaped not only by cognitive and linguistic variables, but also by ideology, identity, cultural representation, and unequal access to valued languages. For example, [Tusi Nasrabadi and Khezri \(2025\)](#) argue that motivation for learning additional languages in Iran is shaped by English-centered hierarchies and critical multilingual identities, while [Aghaei \(2024\)](#) shows that literacy practices in EFL textbooks may create cultural gaps and marginalize learners when classroom materials do not sufficiently reflect local sociocultural realities. These perspectives are directly relevant to Balochi-Persian bilingual students, whose English learning is mediated through Persian, a dominant school language that is not equally accessible to all learners ([Tusi Nasrabadi & Khezri, 2025](#); [Aghaei, 2024](#)).

Recent Iranian studies on multilingual learners also show why Balochi-Persian students should not be treated simply as ‘weak Persian learners.’ [Salimi et al.’s \(2024\)](#) study of Turkmen-Persian bilinguals demonstrates that L3 English acquisition may be shaped by selective cross-linguistic influence from learners’ background languages. Similarly, research on family language policy among Turkmen-Persian bilingual families highlights the role of home language practices, language maintenance, and identity in multilingual development. Together, these studies suggest that Persian proficiency should be interpreted not as an isolated learner trait, but as part of a wider ecology involving family language policy, schooling, minority-language status, and access to academic literacy ([Salimi et al., 2024](#)).

2.4. Empirical findings on bilingual vs. monolingual EFL learners

Research comparing bilingual and monolingual students in English learning reveals mixed findings:

Pronunciation and Phonological Transfer: Bilingual students often outperform monolingual peers in phonetic adaptability, especially in distinguishing new phonemes ([Bialystok, 2017](#); [Pörschmann &](#)

[Arend, 2023](#)). However, when phonological structures significantly differ between L1 and L2, bilinguals may struggle ([Flege, 1995](#); [David et al., 2020](#)).

Grammar and Structural Transfer: Studies demonstrated that bilingual learners tend to transfer grammatical rules from both L1 and L2 when learning L3 ([Genesee & Cenoz, 2001](#); [Rivera Zurita et al., 2023](#)). While this can be beneficial in cases of syntactic similarity, it may also lead to negative transfer in cases of divergence ([Jiang et al., 2023](#)).

Reading and Listening Comprehension: Some studies indicated that bilinguals develop stronger inferencing skills in reading ([Koda, 2007](#); [Vieira et al., 2023](#)), whereas their listening comprehension varies based on L1-L2 exposure ([Grosjean, 2010](#); [Sun, 2020](#)).

Fluency and Communicative Competence: Bilingual students often demonstrated greater fluency due to higher lexical retrieval efficiency ([Baker, 2011](#); [Fathi et al., 2023](#)), yet their sociolinguistic competence depends on exposure and formal instruction.

[Carroll and Smallwood Ramos \(2024\)](#), studying bilingual education in Puerto Rico's public schools, which are influenced by the English of USA and become slower in adapting Spanish/English bilingual education, suggested that more targeted language policies and effective programs are crucial to overcome challenges of learning in these schools.

2.5. Motivation and socio-cultural influences

Learner motivation is another key determinant of English proficiency. [Dörnyei's \(2009\)](#) Motivational Self-System suggests that students with a clear future vision of English use (Ideal L2 Self) exhibit greater persistence. In Iran, monolingual Persian students often display stronger instrumental motivation due to economic incentives (job prospects), while Balochi students may have varying motivational orientations based on cultural identity and exposure ([Ryan & Dörnyei, 2013](#)).

Furthermore, teachers' proficiency in students' L1, Balochi, should be understood as a pedagogical resource rather than a problem. From an additive bilingual and translanguaging perspective, students' mother tongue can support comprehension, reduce anxiety, and help learners connect new concepts across languages. The concern, therefore, is not the presence of Balochi in the classroom itself, but the absence of a planned multilingual pedagogy that develops Persian as the language of schooling while also valuing Balochi as part of students' linguistic identity and learning repertoire ([Macaro, 2005](#)).

2.6. The influence of L2 proficiency on L3 acquisition

Research about how second language proficiency affects third language acquisition has become increasingly important in multilingual education studies. Recent work on Persian learning strategies also

suggests that Persian proficiency should not be treated as a uniform background condition, since learners' strategy use may vary according to social and educational variables such as age, gender, and educational level ([Vakilifard & Atashgaran, 2024](#)). Research findings from [Sánchez \(2015\)](#) and [Fernández-Berkes and Flynn \(2012\)](#) demonstrate that L2 proficiency levels directly affect the cognitive and linguistic development of L3 acquisition. The Threshold Hypothesis by [Cummins \(1976\)](#) states that learners need to achieve a specific level of L2 proficiency before they can benefit from cognitive and linguistic advantages when learning their third language. The educational and sociopolitical rules that govern Persian (L2) acquisition among Balochi-Persian bilingual students prevent them from reaching the necessary proficiency level for effective English (L3) learning. Research indicates that students who do not achieve sufficient L2 proficiency will experience restricted positive transfer and might develop more confusion and interference when learning their third language ([Cenoz, 2003](#); [Cabrelli Amaro et al., 2012](#)). Students who demonstrate better Persian language skills can use their existing grammatical, lexical and discourse patterns to enhance their English language learning ([Leung, 2005](#)). The research confirms that L2 serves as a fundamental linguistic base which determines how well students will learn additional languages. The Iranian educational system needs to focus on balancing Persian language skills among Balochi students because it directly affects their ability to learn English effectively.

2.7. Research gap

While extensive research exists on bilingual advantages in L3 learning, relatively limited attention has been given to how Balochi-Persian bilingual students' English learning is perceived within the specific educational context of Sistan and Baluchestan. Existing studies tend to generalize bilingualism as an advantage, overlooking how linguistic proximity, phonological interference, and socio-motivational factors shape language learning outcomes. Thus, this study seeks to fill this research gap by conducting a qualitative analysis of English learning among Balochi-Persian bilinguals. It explores how language skills and motivational variables interact to influence their English acquisition and how bilingualism and L2 proficiency level function as an asset or obstacle in L3 learning.

3. Methodology

The present study is theoretically grounded in the Interdependence Hypothesis, originally proposed by Jim Cummins. This hypothesis posits that the development of proficiency in a second language is partly dependent on the level of competence already achieved in the first language, due to a shared underlying cognitive and metalinguistic proficiency ([Cummins, 1979](#)). Rather than viewing languages as isolated systems, Cummins argues that they are interrelated, such that skills such as literacy,

conceptual understanding, and metalinguistic awareness can transfer across languages. This principle has been particularly influential in multilingual education contexts, where learners often acquire additional languages through a previously learned language. Subsequent elaborations of the hypothesis emphasize that cross-linguistic transfer is not automatic but mediated by factors such as exposure, instructional context, and proficiency thresholds. In educational settings where a second language serves as the medium of instruction, its level of mastery becomes a critical determinant of success in acquiring a third language. This is especially relevant in contexts like Iran, where Persian functions as the instructional language through which English is taught to bilingual learners. The methodology of the present study aligns closely with the theoretical assumptions of the Interdependence Hypothesis. By adopting an exploratory qualitative case study design, the research seeks to examine how varying levels of Persian proficiency influence English language learning among Balochi–Persian bilingual students. This design is particularly appropriate because the hypothesis itself involves complex, context-dependent cognitive and linguistic interactions that are not easily reducible to quantitative measures alone. Through the collection of in-depth insights from English language teachers, the study captures how cross-linguistic transfer manifests in real classroom settings, including perceived challenges, variations in learner performance, and instructional adaptations. Moreover, the focus on teachers' lived experiences allows the study to explore not only whether interdependence exists, but how it operates in practice. This is consistent with qualitative inquiry's strength in uncovering mechanisms and contextual factors that shape theoretical constructs ([Creswell & Poth, 2018](#); [Yin, 2018](#)). In this way, the methodology does not merely apply the Interdependence Hypothesis but actively interrogates its relevance and explanatory power within a specific multilingual educational context. Given its exploratory qualitative case study design, this study does not aim to establish direct causal relationships between Persian proficiency and English learning outcomes. Instead, it interprets recurring teacher-reported patterns within a specific multilingual educational context. The findings are therefore presented as perceived associations and classroom-based interpretations rather than experimentally verified causal effects.

3.1. Participants

Participants in this study were selected through purposive sampling ([Patton, 2002](#)) to ensure they possessed extensive experience in bilingual educational settings. A total of 20 English teachers, drawn from a diverse range of institutions—including public and private schools in both urban and rural areas of Sistan and Baluchestan—participated in the study. These educators were required to have at least five years of teaching experience and familiarity with the pedagogical challenges of instructing both monolingual Persian speakers and Balochi-Persian bilingual students. In addition to teaching experience,

academic qualifications were also considered, ensuring that participants held university degrees in fields related to language education. The demographic profile of the participants is summarized in Table 1.

This sample was selected for depth of professional experience rather than representativeness. Therefore, the study does not aim to generalize statistically to all Balochi-Persian bilingual students, all Iranian bilingual learners, or multilingual education contexts more broadly.

Table 1

Demographic Profile of the Participants

Teacher Name	Gender	Age	Years of Experience	Teaching Context	University Degree
1- Ali	Male	42	18	Urban public	MA in TESOL
2- Sara	Female	35	12	Urban public	MA in Applied Linguistics
3- Mehdi	Male	39	15	Rural public	BA in English Education
4- Zahra	Female	30	8	Rural public	MA in TESOL
5- Hassan	Male	45	22	Urban public	MA in Linguistics
6- Fatemeh	Female	33	9	Urban public	BA in English Education
7- Reza	Male	50	25	Rural public	MA in Applied Linguistics
8- Leila	Female	28	6	Rural public	BA in English Education
9- Javad	Male	38	14	Urban public	MA in TESOL
10- Maryam	Female	41	16	Urban private	MA in Applied Linguistics
11- Nima	Male	37	13	Rural public	MA in TESOL
12- Nasrin	Female	29	7	Urban public	BA in English Education
13- Kamran	Male	43	20	Urban public	MA in Linguistics
14- Elaheh	Female	32	10	Rural public	MA in TESOL
15- Saeed	Male	46	23	Urban public	MA in Applied Linguistics
16- Mahsa	Female	34	11	Urban private	BA in English Education
17- Amir	Male	31	9	Urban public	MA in TESOL
18- Negar	Female	40	17	Rural public	MA in Linguistics
19- Peyman	Male	36	12	Urban private	BA in English Education
20- Shirin	Female	27	5	Urban public	BA in TESOL

3.2. Data collection

The research team used semi-structured interviews to collect data because this approach enables researchers to study participant perspectives through flexible questioning (Kvale, 2007). The interview questions examined three essential topics about how Persian language abilities impact English pronunciation and bilingual students' grammatical patterns and their individual lexical and syntactic

methods based on Persian proficiency levels and the connection between Persian abilities and English learning motivation and confidence and effective teaching strategies for managing these difficulties. The participants selected either Persian or Balochi as their interview language to establish a relaxed atmosphere for free discussion. The participants authorized recording before each interview session which lasted between 45 to 60 minutes. The research team dedicated many hours to transcription work to achieve both reliable and accurate data results.

In this study, Persian proficiency was not measured through a standardized language test or formal proficiency scale. Rather, it was understood as teacher-reported functional proficiency in the language of schooling. Teachers described students' Persian proficiency in relation to several classroom-based indicators, including their ability to understand Persian instructions, follow teacher explanations, read and write Persian sentences, understand Persian grammatical terminology, and participate in classroom interaction through Persian. Therefore, the categories of "stronger" and "weaker" Persian proficiency should be interpreted as teachers' professional judgments based on repeated classroom experience, not as objectively measured proficiency levels.

3.3. Data analysis

The research data underwent Braun and Clarke's (2006) six-phase thematic analysis procedure. The researcher conducted multiple readings of interview transcripts to develop an understanding of the collected data. The researcher applied open coding to identify repeated concepts, which focused on phonological transfer, grammatical obstacles and teaching methods. The researchers grouped specific codes into larger thematic categories, which included "Persian proficiency effects on various language abilities." During coding, references to Persian proficiency were organized around five functional domains: oral comprehension of Persian instruction, oral expression and classroom participation, Persian literacy, grammatical/metalinguistic awareness, and academic vocabulary. These domains were derived from repeated teacher descriptions rather than from independent assessment scores. The analysis, therefore, examined how teachers perceived these functional aspects of Persian proficiency to shape English learning. The researchers used Cummins' Interdependence Hypothesis to understand how Persian proficiency in Persian affects English language learning through thematic interpretation. The researchers employed NVivo software to analyze qualitative data through systematic coding, which maintained both methodological precision and data transparency ([Bazeley & Jackson, 2013](#)).

Since the analysis focused mainly on teacher interview data, references to students' motivation, self-efficacy, frustration, shame, and linguistic helplessness were treated as teacher-reported perceptions rather than direct psychological measurements.

The research study maintained ethical standards as its core priority. The research protocol received approval from the institutional ethics committee that oversees such matters. The study participants received complete information about research goals and their freedom to leave the study at any time without facing any adverse consequences, according to [AERA \(2011\)](#) and [BERA \(2018\)](#) guidelines. The research team accessed encrypted data through secure storage systems, which used pseudonyms to protect participant identities.

This research methodology enables a thorough examination of how Persian language skills influence English language acquisition among Balochi-Persian bilingual students. The research combines semi-structured interviews with thematic analysis and Cummins' Interdependence Hypothesis to generate findings which both support theoretical frameworks and create practical solutions for bilingual education in multilingual environments.

4. Results

4.1. Theme 1: Impact of Persian proficiency

The teacher accounts in this case study point to the centrality of Persian proficiency in the English learning experiences of Balochi-Persian bilingual students in Sistan and Baluchestan. A solid understanding of Persian seems to be a crucial requirement for successful English language acquisition. Educators have consistently noted that students who are proficient in Persian literacy tend to understand English concepts more quickly than their peers with less developed skills. The excerpts below should be understood as connected pieces of evidence, not as separate or unrelated teacher comments. Read together, they suggest that Persian proficiency works as a threshold condition in students' English learning. The teachers first point to stronger Persian proficiency as a useful resource, helping students follow explanations, understand grammar, transfer literacy skills, and develop greater confidence as learners. They then draw a clear contrast with students whose Persian proficiency is weaker. In these cases, limited Persian appears to make it harder for students to understand classroom explanations, use grammatical terminology, produce written work, and take part in English lessons with confidence.

4.1.1. Positive role of high Persian proficiency

The findings indicate that students with a strong command of Persian demonstrate greater ease in learning English. Persian serves as the primary language of instruction in Iranian schools, and students with higher Persian proficiency can better comprehend explanations, analyze grammatical structures, build vocabulary connections and improve their writing.

Expert 1: "Students who are fluent in Persian grasp English concepts much faster. They can follow explanations, understand grammar, and deduce meanings from context. In contrast, students with weak Persian usually need repeated clarification before they can engage with English concepts. (Teacher No. 3)

Excerpt 2: "I had a student with strong Persian grammar skills, and he picked up English sentence structures much more quickly than his peers. When I introduced English tenses, he immediately related them to Persian, which made learning effortless for him." (Teacher No. 5)

Excerpt 3: "Students who can read and write Persian well usually perform better in English writing. I noticed that those with poor Persian literacy often struggle to form coherent sentences in English"(Teacher No. 2)

Excerpt 4: "I had a bilingual student whose mother tongue was Balochi, and also proficient in Persian. Whenever I taught English ...—explaining that the order of adjectives in English and Balochi is the same (e.g., سیاهین کوش for 'black shoes')—he grasped it quickly. Because his Persian was strong..., and did the transfer easily...." (Teacher No. 7)

Excerpt 5: "Students who have achieved high levels of proficiency and accuracy in Persian understand that learning a new language takes time. Having gone through that process before, they tend to be more patient when learning English." (Teacher No. 15)

These excerpts develop the same argument from different angles. Teacher 3 presents Persian proficiency as a general condition for faster comprehension, while Teacher 5 gives a more specific example of grammatical transfer from Persian to English. Teacher 2 adds the literacy dimension by connecting Persian reading and writing ability with English sentence production. Teacher 7 further shows that students with strong Persian can compare English not only with Persian but also with Balochi in a more conscious way. Finally, Teacher 15 shifts the focus from linguistic transfer to learner patience and persistence. Taken together, the excerpts suggest that strong Persian proficiency supports English learning through comprehension, grammatical awareness, literacy transfer, cross-linguistic comparison, and positive learning attitudes.

4.1.2. Negative role of low Persian proficiency

Teachers generally perceived weak Persian proficiency as an important barrier to English learning. They reported that students with lower Persian literacy often had more difficulty understanding English explanations, grammatical terminology, and literacy-based tasks. These accounts suggest an association between weak Persian proficiency and English learning difficulties, but they should not be read as evidence of direct causality.

Excerpt 6: *"I had a student whose Persian language skills were very weak—he could almost barely communicate in Persian. When he tried to learn English, he focused on me and paid attention in class, but he simply couldn't understand."* (Teacher No. 8)

Excerpt 7: *"I remember a student in my class—an 11th grader at a rural high school—who couldn't write in Persian adequately. When I asked him to write the English words and their Persian equivalents, he mostly couldn't do it correctly."* (Teacher No. 1)

Excerpt 8: *"Many students struggle with parts of speech and grammatical functions. For example, when I teach the concept of a 'subject' in English and say it is فاعل in Persian, I find some students do not even understand the meaning of فاعل in Persian."* (Teacher No. 4)

The three excerpts show different layers of the same problem. Teacher 8 describes the broadest difficulty: the student pays attention but cannot understand English because Persian itself is not strong enough to support instruction. Teacher 1 gives a literacy-based example, showing that weak Persian writing prevents the student from connecting English words with their Persian equivalents. Teacher 4 then identifies a more technical difficulty: students may not understand the Persian grammatical terminology used to explain English grammar. These accounts show that low Persian proficiency weakens three important bridges to English learning: classroom instruction, literacy practice, and grammatical metalanguage.

4.1.3. Difficulties faced by students

A recurring challenge among Balochi-Persian bilingual students is the struggle faced by those with weak Persian proficiency when learning English. Since Persian is the language of instruction in Iranian schools, students who lack fluency in Persian often fail to understand explanations, follow lessons, or engage with English-language materials. Teachers repeatedly observed that such students not only lag behind in English but also develop frustration and low confidence in their language-learning abilities.

Excerpt 9: *"I had a student who couldn't even follow my Persian explanations well enough, let alone grasp English. Whenever I introduced new concepts, he stared at me, unable to process what I was saying. No matter how much I tried to simplify my instructions, he struggled because his Persian skills were too weak to serve as a foundation for English learning."* (Teacher No. 6)

Excerpt 10: *"I remember a student who couldn't even write basic Persian sentences properly. When I asked him to write English equivalents of simple Persian phrases, he couldn't do it. He lacked the fundamental literacy skills needed to learn a foreign language."* (Teacher No. 13)

Excerpt 11: *"Some students tell me, 'If we can't even learn Persian properly, how can we learn English?' This mindset discourages them from trying. Their struggles in Persian create a fear of failure in English, making them hesitant to participate in class."* (Teacher No. 9)

4.1.4. Affected language skills

Teachers have observed that students who demonstrate strong Persian language abilities perform better in all English language skills, including reading, writing, listening and speaking. Students who possess strong Persian language abilities find it simpler to learn English literacy because they can transfer their current linguistic understanding to the new language. Students with poor Persian language skills face multiple challenges in their studies, especially when it comes to writing and reading because these subjects require solid knowledge of sentence structure and vocabulary.

Excerpt 12: *"Students who write well in Persian usually perform better in English writing. They understand sentence structure, punctuation, and coherence, which helps them form clear and logical English sentences. But students who struggle with Persian grammar often make fundamental mistakes in English."* (Teacher No. 11)

Excerpt 13: *"In my experience, students who read Persian fluently are better at reading English texts. They are used to decoding words, understanding sentence patterns, and predicting meaning from context. Those who struggle with Persian reading often get stuck on every word in English, which slows down their comprehension."* (Teacher No. 10)

Excerpt 14: *"Students with a strong Persian vocabulary tend to be more confident in speaking English. They have a broader linguistic base to draw from, making it easier for them to express ideas and form sentences. Those with weak Persian often hesitate, searching for words and struggling to construct sentences correctly."* (Teacher No. 12)

4.1.5. Psychological and motivational impact

Students with weak Persian proficiency not only struggle academically but also face significant psychological and motivational challenges when learning English. Many teachers observed that these students often feel frustrated, insecure, and disengaged, as they find it difficult to follow lessons and keep up with their peers. The inability to understand Persian explanations creates a sense of linguistic helplessness, leading some students to believe that learning English is beyond their ability.

Excerpt 15: *"Some students hesitate to ask questions in class because they are already ashamed of their weak Persian. They fear that struggling in English will make them look even more unskilled."* (Teacher No. 1)

Excerpt 16: *"Students who don't understand Persian well tend to avoid answering questions in English class. They fear making mistakes and feel embarrassed in front of their classmates."* (Teacher No. 8)

Excerpt 17: *"I've seen students lose interest in English altogether because they feel left behind. Their struggles with Persian create a chain reaction, making them believe that learning another language is impossible."* (Teacher No. 13)

4.1.6. Attitudes and self-efficacy

The interviews reveal that students' self-perceptions and attitudes toward learning English are closely linked to their proficiency in Persian. A lack of foundational skills can lead to diminished self-confidence and a reluctance to seek help.

Excerpt 18: *"He couldn't pronounce some Persian words and switched to Balochi to complete his sentences. This negatively affected his attitude toward learning English. Many bilingual students told me, 'Teacher, Persian is our national language and is used everywhere, yet we haven't yet mastered it. How can we possibly learn English?'"* (Teacher No. 14)

Excerpt 19: *"Students who have achieved high levels of proficiency and accuracy in Persian understand that learning a new language takes time, so they tend to be more patient when learning English. In contrast, students who did not learn Persian well often believe they cannot learn English either."* (Teacher No. 15)

Excerpt 20: *"Students who are weak in Persian often assume that any difficulty they encounter in learning English is their own fault, believing they are inherently unable to learn English. They rarely ask teachers for clarification about challenging parts of the lesson."* (Teacher No. 20)

Overall, Theme 1 shows that Persian proficiency shapes English learning through a layered process. At the cognitive level, it helps students follow explanations and compare grammatical structures. At the literacy level, it supports reading, writing, and vocabulary development. At the classroom level, it affects participation and willingness to ask for help. At the psychological level, it influences whether students see themselves as capable language learners. The excerpts, therefore, support the interpretation that Persian proficiency functions as a threshold condition: when it is sufficiently developed, it facilitates English learning, but when it remains weak, it restricts access to English instruction and weakens learner confidence.

4.2. Theme 2: causes of low Persian proficiency

4.2.1. Unplanned classroom language use and limited Persian exposure

Another emergent theme in the data was teachers' concern about unplanned classroom language practices in some rural primary schools. According to their accounts, Balochi was often used because it

was the most accessible language for both teachers and students. However, teachers felt that when Balochi use was not accompanied by systematic Persian literacy support, students had fewer opportunities to develop the Persian academic language needed for later schooling and English learning. Thus, the issue should not be understood as Balochi itself causing difficulty, but as the lack of an additive model in which Balochi and Persian are both deliberately supported.

Excerpt 21: *“To be honest, in most of our primary classes, native teachers are speaking Balochi almost all the time—because it’s easier for the kids and for the teachers too. But the problem is, the students don’t get used to Persian, and when they go to secondary school, they really struggle with reading and writing in Persian.”* (Teacher No. 17)

Excerpt 22: *“Balochi is our mother tongue, and yes, it makes communication smoother. But honestly, we are overusing it. I feel we are not preparing students for the realities of the academic world, which is in Persian—and eventually in English. They miss that ladder completely.”* (Teacher No. 19)

4.2.2. Urban–Rural disparities

The findings reveal significant differences in language proficiency and learning opportunities between urban and rural contexts. Urban students tend to benefit from richer linguistic environments and more consistent exposure to Persian, whereas rural students face, for example, pronunciation challenges.

Excerpt 23: *“In urban areas, children watch cartoons in Persian from a very young age. But in our rural community, many students don’t have that luxury. Some have never even watched a Persian-language TV show. Their first contact with many of them with Persian is at school, and they struggle from the very beginning.”* (Teacher No. 10)

Excerpt 24: *“When you teach English in a rural classroom, you first have to translate it into Persian—but then you realize some students don’t even understand Persian well. They look at you, confused, not because they are lazy, but because many of them have never had the chance to hear or use the Persian language at home.”* (Teacher No. 9)

Excerpt 25: *“I have taught both in rural and urban schools. Students in rural schools face more challenges than urban bilingual students because in big societies such as cities, they frequently interact with Persian speakers. However, in rural areas, they mostly communicate with family and neighbors who speak Balochi. As a result, urban students—who have higher Persian proficiency—tend to learn English more effectively than rural ones.”* (Teacher No. 16)

These excerpts extend the previous subsection by showing that the overuse of Balochi is intensified by place. Teacher 10 describes rural students’ limited exposure to Persian-language media, while Teacher 9 shows how this lack of exposure appears inside the English classroom when students cannot understand Persian explanations. Teacher 16 then contrasts rural and urban settings, explaining

that urban students benefit from more frequent interaction with Persian speakers. Together, the excerpts suggest that rural disadvantage is not only geographical. It is linguistic, social, and educational at the same time.

4.2.3. Household resource constraints and limited home learning support

One of the prominent themes that emerged from the interviews concerned household resource constraints and limited access to language-learning support. Teachers associated these conditions with reduced exposure to Persian-language media, books, digital tools, quiet study space, and literacy-related activities at home. These accounts should not be interpreted as blaming families for students' educational difficulties, but as pointing to wider socioeconomic and infrastructural barriers that limit children's access to language-rich environments.

Excerpt 26: *"Most of the families in our village have five to eight children, and they live in small, shared spaces. Parents are barely making ends meet, so buying a smartphone or even a simple TV isn't their priority. Without access to technology, these students miss out on even the most basic exposure to Persian, let alone English."* (Teacher No. 8)

4.2.4. Socio-Economic and technological influences

Socio-economic conditions and access to technology play a decisive role in shaping language learning outcomes. Limited economic resources in rural areas restrict students' exposure to Persian media, which in turn affects their overall language proficiency.

Excerpt 27: *"When I taught using virtual tools and technology, students adapted to Persian paid attention quite well. However, when I went to teach in a rural area, I realized many people could not afford a television or smartphone due to economic hardship. As a result, students there rarely listened to Persian programs, which made them weaker in both Persian and English."* (Teacher No. 6)

Excerpt 28 (revisited): *"Students in rural schools face more challenges than urban bilingual students because in big societies such as cities, they frequently interact with Persian speakers. However, in rural areas, they mostly communicate with family and neighbors who speak Balochi."* (Teacher No. 16)

Excerpts 26–28 show that household conditions, poverty, and technological access are closely connected. Teacher 8 links overcrowded households with limited access to television, smartphones, and other sources of Persian input. Teacher 6 adds that rural poverty reduces students' exposure to Persian programs and digital learning tools. Teacher 16 then connects these limitations to the broader rural context, where students mostly communicate in Balochi. These excerpts, therefore show that weak Persian proficiency is not caused by one factor alone, but by overlapping home, economic, technological, and community conditions.

4.2.5. Low-Literacy home environments

A recurring concern among the interviewed teachers was the impact of home environments where parents have low literacy levels and limited engagement in language-rich activities. Teachers highlighted that these home conditions and lack of parental language support contribute not only to weak Persian skills but also hinder students' readiness for learning English as a third language.

Excerpt 29: *"Most of the parents can't read or write themselves, so they don't read storybooks or do any kind of language games with their kids. The children come to school without even basic Persian vocabulary."* (Teacher No. 5)

Excerpt 30: *"I have students who have never heard Persian spoken at home, and their parents don't have the tools to help. They don't know how to read, and they don't see the value in things like storytelling or reading aloud."* (Teacher No. 13)

Excerpt 31: *"The kids are smart, but their home doesn't support learning. There are no books, no reading habits, no language interaction. It's like they only start learning Persian when they step into school, and even then, it's limited."* (Teacher No. 14)

4.3. Theme 3: proposed solutions

Given the significant impact of Persian proficiency on English learning among Balochi-Persian bilingual students, teachers proposed and emphasized some suggestions as applicable solutions. By this, they expect to overcome the existing challenges that bilingual students are facing, and aspire to achieve the desired objectives efficiently.

The proposed solutions correspond directly to the problems identified in Themes 1 and 2. Teachers did not propose a single intervention, but a layered response. Early Persian support addresses the proficiency threshold before English learning begins. Monitoring Persian use in rural primary schools responds to the overuse of Balochi. Strategic use of Balochi and recruitment of bilingual teachers respond to the need for scaffolding without replacing Persian. Family-related and curriculum-related recommendations address the broader social and institutional conditions that shape language learning.

4.3.1. Enhancing Persian proficiency in early childhood education

Strengthening Persian skills in the early stages of education can act as a useful framework for bilingual students, ensuring that gaps in Persian proficiency do not impede their progress in learning English. Teachers emphasized the significant role of improving Persian language skills in early education. Excerpt 32: *"Before expecting students to learn English, we must ensure their Persian skills are strong enough. Extra Persian language support in elementary school would prevent many of the difficulties they face later."* (Teacher No. 20)

Excerpt 33: *"I've seen it many times—students come to fifth or sixth grade and still can't form proper Persian sentences. Their vocabulary is limited, and that causes real issues when they start learning English. It's like building a third floor without a second one! Early progress in Persian is crucial."* (Teacher No. 18)

4.3.2. Monitoring Persian teaching in rural primary schools

While valuing the mother tongue is essential, the findings suggest that students also need more systematic support in Persian, the official language of schooling. This support should not be framed as replacing Balochi, but as expanding students' linguistic resources. An additive approach would allow teachers to use Balochi for clarification, identity affirmation, and conceptual scaffolding while gradually strengthening Persian academic literacy.

Excerpt 34: *"I understand the need for Balochi, but school is the only place many of these children can hear and practice Persian. If we ignore that, we are closing the door to their academic future."* (Teacher No. 19)

Excerpt 35: *"We need clear policies: at least 70 to 80 percent of instruction in early grades should be in Persian. Otherwise, students fall behind in national assessments, and it's hard to catch up."* (Teacher No. 14)

Excerpt 36: *"It's not about removing Balochi; it's about balance. Right now, in many schools, Persian has no space at all. That's harmful in the long run."* (Teacher No. 12)

The three excerpts present monitoring not as a rejection of Balochi, but as a call for balance. Teacher 19 emphasizes that school may be the only regular space where some children hear Persian. Teacher 14 translates this concern into a policy-oriented recommendation for greater Persian use in early grades. Teacher 12 clarifies the principle behind the proposal: the goal is not to remove Balochi, but to ensure that Persian has enough instructional space. These excerpts, therefore, connect classroom practice with language policy.

4.3.3. Use of Balochi as a supplementary pedagogical tool

Teachers have found that strategically incorporating Balochi as an accompanying language can provide essential scaffolding for students who struggle with Persian. A teacher pointed out that using Balochi for clarification helped reinforce English concepts and raise students' willingness to be engaged: Excerpt 37: *"Some students couldn't follow my Persian explanations, so I occasionally translated key points into Balochi. Their understanding improved instantly, and they were more willing to participate."* (Teacher No. 1)

Excerpt 38: *"For difficult topics, I sometimes explain in Balochi to ensure students grasp the meaning. It reduces their confusion and helps them connect new English words with familiar concepts."* (Teacher No. 2)

4.3.4. Recruitment of more bilingual teachers

The presence of bilingual teachers who can communicate in both Persian and Balochi plays a crucial role in supporting students with weaker Persian proficiency. Several teachers emphasized that when students struggle to understand English through Persian instruction, providing partial explanations in Balochi can help bridge the gap. They suggest hiring more bilingual educators as a solution.

Excerpt 39: *"Teachers who know Balochi can better support students who struggle with Persian. If a student cannot understand instructions in Persian, explaining briefly in Balochi prevents frustration and disengagement."* (Teacher No. 7)

Excerpt 40: *"My mother tongue is Balochi. ... some bilingual students struggled to understand Persian, so to help them grasp English better, I occasionally used Balochi equivalents for some English words. I observed that they learned more effectively."* (Teacher No. 6)

Excerpt 41: *"I believe policy makers should recruit more bilingual teachers whose native language is Balochi, or at least teachers who are proficient in Balochi. ..."* (Teacher No. 4)

Excerpt 42: *"Students weak in Persian need teachers who understand Balochi. Even occasional explanations in Balochi can help them grasp English concepts better and reduce their frustration."* (Teacher No. 10)

The recommendation to recruit more bilingual teachers follows directly from the tension discussed earlier. Students need Persian to progress academically, yet some still need support in Balochi when classroom explanations become difficult or too abstract. Teachers who can move carefully between Balochi and Persian are therefore better able to reduce frustration, explain concepts more clearly, and keep students engaged, without allowing Balochi to replace Persian as the main language of instruction. In this sense, recruiting bilingual teachers is not simply a staffing issue. It is also a pedagogical response to the threshold role that Persian proficiency plays in students' learning.

4.3.5. Decreasing family crowdedness

Many teachers highlighted that students from economically disadvantaged households often have limited access to books, digital resources, quiet study spaces, and adult literacy support. The implication is not that large families should be viewed negatively, but that families living under material pressure require stronger educational and social support systems. Community literacy programs, parent education,

affordable learning materials, and access to early childhood education may help reduce language-development gaps without placing responsibility for structural inequality on families themselves.

Excerpt 43: *"In a house with ten or more children, how can parents focus on each child's learning? These families need help to plan better for the future generations."* (Teacher No. 3)

Excerpt 44: *"I have students whose parents are exhausted. They just try to feed the children and keep them safe. Education becomes a luxury they can't manage with so many mouths to feed."* (Teacher No. 18)

Excerpt 45: *"We must think beyond classrooms. Family planning and awareness are also part of educational equity. If we want children to thrive, we need to make sure they are born into environments that can support their growth."* (Teacher No. 20)

4.3.6. Curriculum adjustments

Some of the educators proposed modifying English curricula in a way that can be more inclusive, and can entail changes to the curriculum's content: when or how it is delivered, or how students can engage in their education.

Excerpt 46: *"Current teaching materials assume all students are fluent in Persian, which is not the case. The curriculum should consider bilingual students' needs and provide alternative teaching approaches."* (Teacher No. 11)

Table 2

Teacher-reported Contrasts Showing How L2 Persian Proficiency Shapes L3 English Learning Across Cognitive, Linguistic, and Affective Domains.

Analytical dimension	What experts reported for stronger Persian proficiency	What experts reported for weaker Persian proficiency	Most accurate interpretation	Supporting excerpts
Understanding classroom instruction	Students follow explanations more easily and grasp English concepts faster	Students struggle to understand Persian explanations, which limits their English learning	Experts consistently describe Persian as the immediate instructional medium through which English is accessed	T3, T6
Grammar learning	Students relate English grammar to Persian more effectively	Some students do not understand Persian grammatical terms, which makes English grammar harder to teach	The expert data support a link between Persian grammatical awareness and English grammar learning	T5, T4

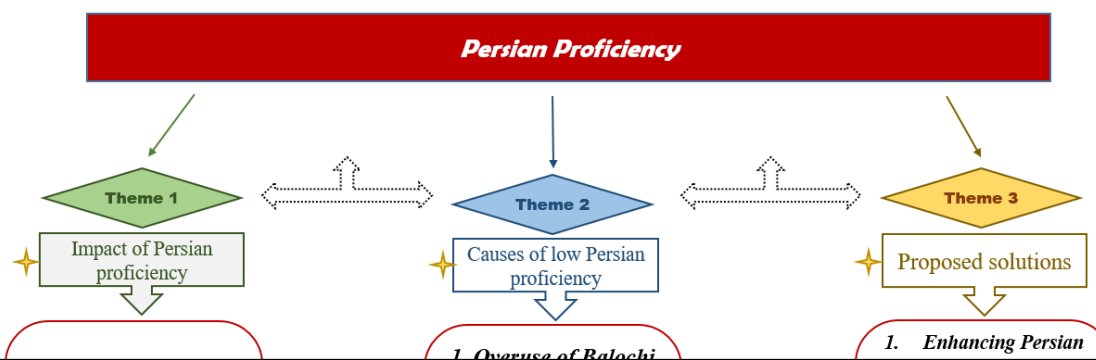
Analytical dimension	What experts reported for stronger Persian proficiency	What experts reported for weaker Persian proficiency	Most accurate interpretation	Supporting excerpts
Writing ability	Better Persian literacy is associated with better English writing and sentence formation	Weak Persian literacy is associated with difficulty writing English words and sentences	Experts repeatedly connect L2 literacy strength with L3 writing performance	T2, T11, T1, T13
Reading ability	Students who read Persian fluently tend to read English more effectively	Students with weak Persian reading tend to slow down and get stuck word by word in English	The data support perceived transfer of reading-related skills, especially decoding and comprehension habits	T10
Speaking and expression	Students with stronger Persian vocabulary are described as more confident and better able to express ideas in English	Students with weak Persian hesitate, search for words, and struggle to form sentences	The experts frame oral English difficulty partly as a consequence of limited linguistic foundation	T12, T14
Speed of English learning	Learning is described as faster and more efficient	Students may pay attention and try, but still fail to understand	Experts suggest that effort alone is not enough when Persian proficiency is too weak	T3, T8
Confidence and participation	Students with stronger Persian tend to be more patient and more willing to continue learning	Students with weak Persian avoid answering, asking questions, or participating	This pattern is strongly supported in the expert accounts and is one of the clearest themes	T15, T16, T20
Self-efficacy and beliefs about learning	Prior success in Persian seems to support belief that another language can also be learned	Students often conclude that failure in Persian means they cannot learn English either	This is supported as a recurring teacher perception about student mindset	T11, T18, T19, T20

Analytical dimension	What experts reported for stronger Persian proficiency	What experts reported for weaker Persian proficiency	Most accurate interpretation	Supporting excerpts
Cross-linguistic comparison	Some students use Persian and sometimes Balochi comparisons to understand English more successfully	Students with weak Persian are less able to benefit from such comparisons	The idea of cross-linguistic transfer (using one language to help learn another) was suggested by the teachers' observations, but it was not directly tested or measured experimentally in this study.	T5, T7, T38, T40
Emotional response to English learning	Stronger Persian proficiency is associated with patience and persistence	Weak Persian proficiency is associated with frustration, shame, fear of failure, and disengagement	The emotional dimension is very well supported across multiple excerpts	T15, T17, T18, T20

Diagram 1 shows the findings about the threshold effect of L2 Persian proficiency on L3 English learning in bilingual Balochi-Persian students, represented under the three themes of Impact of Persian proficiency, Causes of low Persian proficiency, and Proposed solutions.

Diagram 1

Effects of L2 Persian Proficiency on L3 English Learning in Bilingual Balochi-Persian Students



5. Discussion

This study examined teachers' perceptions of how L2 Persian proficiency is associated with L3 English learning among Balochi-Persian bilingual students in Iran. The findings should be interpreted as qualitative, teacher-reported patterns rather than causal evidence. Within this interpretive frame, teachers repeatedly described Persian as an instructional bridge through which students access English explanations, grammatical terminology, literacy practices, and classroom participation. This interpretation is consistent with Cummins' Interdependence Hypothesis and threshold-related views of multilingual development, which suggest that previously developed linguistic and literacy resources may support additional language learning when sufficient proficiency is available ([Cummins, 1976, 1979](#); [Cenoz, 2003](#); [Cabrelli Amaro et al., 2012](#)).

Methodologically, the interpretation is shaped by the study's reliance on teacher interviews and by the theoretical lens of linguistic interdependence. This lens helped identify meaningful patterns in the data, but it may also foreground Persian proficiency more strongly than other possible explanations, such as school quality, teacher training, socioeconomic conditions, curriculum design, or learner-level differences. For this reason, the findings should be read as context-specific qualitative interpretations requiring further triangulation through student interviews, proficiency measures, learner performance samples, and systematic classroom observation in future research.

The teachers observed that students who demonstrated superior Persian language abilities showed higher levels of confidence, better engagement and academic success in their English learning process. The research supports [Edele et al. \(2018\)](#), who discovered that Russian-German bilingual students who learned English as their third language achieved better results when they demonstrated stronger proficiency in the school language, German. [Mariani et al. \(2024\)](#) showed that Iraqi students who

demonstrated better L2 English abilities achieved superior results in their L3 Indonesian learning. Students who did not possess sufficient Persian fluency struggled to participate in English classes and showed signs of confusion, emotional detachment and hesitation. The research supports [Ryan \(2021\)](#) and [Tahoori Asl \(2012\)](#) who show that L2 proficiency creates essential conditions for students to maintain their motivation and confidence and positive self-concept.

Teachers observed that students who demonstrated proficiency in Persian could use their existing language skills to develop strategic learning approaches for English acquisition. Students who demonstrated strong reading and vocabulary skills in their L2 could better understand English texts, while Persian-speaking students felt more comfortable speaking English without worrying about mistakes. The observed patterns match the interlingual transfer mechanisms studied by [Leung \(2005\)](#) and [Fernández-Berkes and Flynn \(2012\)](#), who showed that L2 knowledge helps students build their L3 abilities.

Students who do not possess an L2 foundation experience learning as a broken and discouraging process. Teachers observed that students who did not understand Persian instructions failed to learn basic English concepts, which resulted in their disengagement from schoolwork and academic failure. The observed learning pattern shows similarities with [Cummins' \(1976\)](#) threshold concept, which demonstrates that students who do not achieve sufficient L2 proficiency will experience negative transfer and emotional exhaustion.

The study also shows that Balochi can function as an important pedagogical and affective resource. Teachers reported that brief explanations in Balochi helped students understand difficult concepts, reduced confusion, and increased participation. From a translanguaging perspective, this movement across Balochi, Persian, and English should not be treated as a weakness, but as a classroom strategy that can support meaning-making. The concern raised by teachers is therefore better understood as the absence of planned multilingual pedagogy, not the use of Balochi itself.

The findings are also consistent with one aspect of [Larsen-Freeman's \(1997\)](#) Complexity Theory, particularly the view that multilingual development is shaped by the interaction of several linguistic, pedagogical, and sociocultural factors rather than by a single variable. In the present study, English learning was not influenced only by students' bilingual status or Persian proficiency in isolation. It was also shaped by classroom language practices, the strategic or excessive use of Balochi, rural–urban differences, access to Persian exposure, home literacy conditions, and learners' confidence. Therefore, the findings support a complexity-informed interpretation of L3 learning, in which Persian proficiency interacts with other contextual conditions to either facilitate or restrict English development. The study does not claim to test Complexity Theory as a whole; rather, it draws on this perspective to interpret the interconnected nature of the reported learning challenges.

The research demonstrated that bilingual teachers hold exceptional value in educational settings. Teachers who mastered both Balochi and Persian languages effectively connected students to learning materials while creating trust-based relationships and minimizing language-based stress. The teachers used code-switching techniques to provide support to students while keeping their focus on teaching Persian and English language skills. The research by [Pando et al. \(2025\)](#) demonstrates that multilingual teacher education stands as a fundamental requirement for achieving fair and successful learning outcomes in classrooms with diverse student populations. [Johnson et al. \(2025\)](#) demonstrate that teacher preparation programs should focus on developing bilingual educators who can fulfill academic and social-emotional requirements of multilingual students.

The research established that home literacy settings determine how well students prepare for learning their second and third languages. Teachers explained that numerous students from rural areas live in big families where Persian is not spoken, and their parents lack sufficient literacy skills to help with learning through reading books or academic discussions. The existing home conditions make it more difficult for students to succeed in their classroom work. The research by [Li et al. \(2023\)](#) demonstrates that early literacy support from parents leads to better language development results. [Fayyazi et al. \(2014\)](#) studied bilingual students from homes with low literacy levels who faced difficulties with English grammar and vocabulary because they received insufficient exposure to both their native language and English.

The research established that students from urban areas receive better language learning opportunities than their rural counterparts. Students who lived in urban areas encountered Persian through media outlets, school programs and additional extracurricular activities. Rural students faced restricted access to digital resources and educational materials in Persian-speaking environments. The research of [Stander \(2022\)](#) demonstrates that unequal exposure to language during development creates lasting effects on academic performance. Teachers observed that urban students enter school with basic Persian literacy skills, but rural students face a substantial language gap, which worsens when English education starts.

Another notable pattern concerned the relationship between household resource constraints, economic hardship, and language development. Teachers reported that some families had limited access to books, digital tools, Persian-language media, and adult literacy support, which reduced children's opportunities for language-rich interaction outside school. These findings should be interpreted as evidence of structural disadvantage rather than family deficiency. Therefore, pedagogical efforts need to be accompanied by broader social and educational policies, including community literacy programs, early childhood education, parent support initiatives, and improved access to learning resources.

Teachers observed that students developed their emotional bond with language through their initial experiences with Persian. Students who failed to understand classroom instructions developed

negative self-perceptions, which resulted in their reluctance to participate and their fear of receiving criticism from others. The Motivational Self-System developed by [Dörnyei \(2009\)](#) shows that students who see themselves as proficient language users will maintain their interest in learning over time. Students who experience early damage to their L2 skills face significant challenges when they attempt to learn L3.

However, these affective findings should be interpreted cautiously. The present study captures teachers' perceptions of students' confidence, frustration, reluctance, and motivation, but it does not directly measure these states through student interviews, focus groups, or psychological instruments. Therefore, references to self-efficacy, shame, and linguistic helplessness should be understood as teacher-reported patterns rather than empirically verified learner states. This affective dimension may also be connected to culturally responsive and compassion-oriented EFL research, which emphasizes that learners' emotional experiences and classroom climate are shaped by local cultural and educational contexts ([Asanjarani et al., 2026](#)).

The research results led participating teachers to create essential recommendations for educational practice and policy development. The first recommendation involves improving Persian education during the early school years, particularly in rural areas, because these regions lack sufficient home-based language exposure. The recruitment process for bilingual teachers needs immediate attention, while their training should emphasize multilingual teaching methods and translanguaging and culturally sensitive classroom practices. The use of Balochi as a learning tool should be limited to specific instances which help students learn without replacing Persian as their primary language. The educational materials need to reflect students' language abilities through visual content, bilingual glossaries and simplified reading materials. The implementation of social programs needs to focus on three main objectives, which include home literacy support, family space reduction and parent education for language development assistance.

The proposed solutions derive from this research data and receive backing from existing academic literature. The research of [Leung \(2005\)](#), [Cabrelli Amaro et al. \(2012\)](#) and [Cenoz \(2003\)](#) demonstrates that L2 development needs support because it creates the foundation for successful L3 acquisition. The research by [Arefiyan and Dehnadi \(2019\)](#) demonstrated that English proficiency between monolingual and bilingual students remained equal when their Persian language skills reached advanced levels, thus proving that bilingualism quality matters more than bilingualism itself.

The research demonstrates that Balochi-Persian bilingual students need proficient Persian skills to achieve success in English language learning. The level of Persian proficiency determines both academic achievement and student confidence and motivation, and their ability to identify as language users. The Iranian English language education system requires immediate action to fix Persian instruction gaps while

supporting bilingual teachers and creating curricula that match the needs of rural multilingual students for achieving inclusive and effective education. The implementation of a humanized teaching approach which honors linguistic diversity while providing equal access to national and international languages represents an essential educational requirement.

6. Limitations and Future Research

A major limitation of this study is its reliance on teachers' perceptions and interpretations of bilingual learners' classroom experiences. Although teacher interviews provide valuable insight into participants' professional understandings and repeated classroom patterns ([Kvale, 2007](#)), the study did not include direct learner data such as student interviews, focus groups, Persian and English proficiency measures, learner performance samples, classroom interaction transcripts, or systematically coded observation protocols. As a result, conclusions about students' self-efficacy, frustration, shame, motivation, and perceived linguistic helplessness remain inferential and should be treated as teacher-reported interpretations rather than direct evidence of students' internal states. This limitation is especially important because motivation, self-efficacy, and affective factors are complex learner variables that are best examined through direct learner evidence or appropriate measurement tools ([Dörnyei, 2009](#); [Liu et al., 2023](#); [Stander, 2022](#)). Future studies should triangulate teacher perspectives with learner voices, written and oral performance data, proficiency assessments in Persian and English, and discourse-based analyses of classroom interaction. Such triangulation is consistent with qualitative case study principles, where credibility is strengthened through multiple sources of evidence and systematic analysis ([Creswell & Poth, 2018](#); [Yin, 2018](#)). It would also provide a more precise account of how Persian proficiency shapes English learning across cognitive, linguistic, emotional, and motivational dimensions. A further limitation concerns the contextual scope of the study. The data were collected from 20 English teachers in one province of Iran, Sistan and Baluchestan, through purposive sampling. Therefore, the findings should not be generalized to all bilingual students, all multilingual classrooms, or global multilingual education contexts. Rather, they should be understood as context-bound interpretations of teacher-reported experiences in Balochi-Persian educational settings where Persian functions as the official language of schooling and English is taught as an additional language. The value of the study lies in its analytical and contextual insight, not statistical generalization. Future research could examine similar issues across other Iranian provinces, minority-language communities, school levels, and learner groups to determine whether comparable patterns appear in different sociolinguistic and educational contexts

7. Conclusion

In this province-specific qualitative case study, teachers' accounts point to the need for linguistically responsive educational policies in multilingual regions such as Sistan and Baluchestan. While bilingualism can facilitate English acquisition, its benefits are contingent on students' proficiency in Persian, the official medium of instruction. Weak Persian skills were reported to hinder students' access to Persian-mediated English instruction and to contribute to cumulative educational difficulties. Teachers emphasized the value of strategic use of Balochi as a supportive scaffold, particularly in early grades. However, they cautioned against its unchecked overuse, which may limit exposure to Persian and undermine bilingual students' academic progression. This calls for clear pedagogical guidance on balanced language use in classrooms. The study underscores the importance of recruiting and training bilingual teachers, who can effectively navigate instruction across Balochi, Persian, and English. Such educators are better positioned to meet students' linguistic needs and mediate transitions across languages without compromising curricular goals. Equally important is the need to reinforce Persian instruction at the preschool and primary levels, especially for students who enter school with minimal exposure to the language.

Early intervention in Persian literacy and oral skills can help prepare students more effectively for L3 English learning. In addition, teachers advocated for curriculum adaptation to reflect bilingual learners' realities. This includes differentiated content, visual supports, and culturally responsive materials that address the developmental needs of students with emerging Persian literacy. Beyond the classroom, broader sociocultural challenges such as parental illiteracy and overcrowded households must also be addressed. These factors significantly limit students' home-based language development. As such, educational policy should incorporate community literacy programs and family planning awareness as part of long-term equity strategies. Collectively, these insights point to the need for a holistic, equity-driven approach to English language teaching—one that bridges linguistic, instructional, and social gaps. Without targeted reforms in early Persian instruction, bilingual teacher preparation, and curriculum design, disparities between Persian-dominant and Balochi-Persian bilingual learners are likely to persist.

Overall, the study should be read as a context-specific account of how teachers in Sistan and Baluchestan perceive the relationship between Persian proficiency, Balochi-Persian bilingualism, and access to English learning. Stronger Persian proficiency was associated with better comprehension of instruction, greater use of grammatical and literacy transfer, and stronger classroom participation, while developing Persian academic proficiency was linked to difficulty understanding Persian-mediated English instruction, reduced confidence, and lower engagement. However, these patterns should not be interpreted as evidence that Balochi or bilingualism harms English learning. Rather, they show how unequal access

to Persian academic support, rural educational inequalities, limited resources, and state language policies shape students' multilingual development. The study therefore supports an additive and linguistically responsive approach in which Balochi is valued as a legitimate resource, Persian is strengthened as the language of schooling, and English is taught through pedagogies that recognize students' full multilingual repertoires.

Declaration

We confirm that this work is original and is not under consideration by any other journal.

Transparency Statements

The datasets analyzed during the current study are available from the corresponding author on reasonable request.

Acknowledgements

The authors would like to thank all those who contributed to the completion of this project.

Declaration of Interests

The authors declare that they have no conflict of interest.

Funding

No funding was received for this study.

Ethical Consideration

This manuscript adheres to the ethical guidelines provided by the Committee on Publication Ethics (COPE) for ensuring integrity and transparency in the research publication process.

About the Authors

References

- Aghaei, K. (2024). Teachers' perceptions on language literacy practices represented in an EFL textbook. *Critical Applied Linguistics Studies*, 1 (2), 170–192. http://cals.gonbad.ac.ir/browse.php?a_id=50&sid=1&slc_lang=en
- American Educational Research Association. (2011). AERA code of ethics: American Educational Research Association approved by the AERA Council February 2011. *Educational Researcher*, 40(3), 145–156. <https://doi.org/10.3102/0013189X11410403>
- Arefiyan, Z., & Dehnadi, P. (2019). Comparison of English writing scores in bilingual (Persian and Turkish) and monolingual (Persian) students. *Journal of Cultural Sociology*, 1(1), 13–22. <http://jcsjs.ir/article-1-31-en.html>
- Asanjarani, F., Sadri Esfahani, M., Bolghan-Abadi, M., & Aghaei, K. (2026). Development and cultural adaptation of a compassion scale for EFL learners: Psychometric properties for Iranian youth. *Language Testing in Asia*, 16(1). <https://doi.org/10.1186/s40468-025-00414-4>
- Atouf, N., & Harrizi, M. (2023). Examining a reversed cross-language transfer of core metalinguistic awareness skills among Moroccan university students with reading difficulties: A longitudinal quasi-experimental study. *International Journal of Language and Education Research*, 5 (2), 78–97.
- Baker, C. (2011). *Foundations of bilingual education and bilingualism*. Multilingual Matters.
- Bazeley, P., & Jackson, K. (2013). *Qualitative data analysis with NVivo*. (2nd ed.). Sage.
- Bialystok, E. (2017). The bilingual adaptation: How minds accommodate experience. *Psychological Bulletin*, 143 (3), 233–262. <https://doi.org/10.1037/bul0000099>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

- British Educational Research Association. (2018). *Ethical guidelines for educational research*. (4th ed.). British Educational Research Association. <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018>
- Cabrelli Amaro, J., Flynn, S., & Rothman, J. (Eds.). (2012). *Third language acquisition in adulthood*. John Benjamins Publishing Company.
- Carroll, K. S., & Smallwood Ramos, J. (2024). Bilingual education in the public schools of Puerto Rico: Language policy, challenges, and possibilities. *Bilingual Research Journal*, 48 (2), 170–183. <https://doi.org/10.1080/15235882.2024.2427134>
- Cenoz, J. (2003). The additive effect of bilingualism on third language acquisition: A review. *International Journal of Bilingualism*, 7 (1), 71–87.
- Cenoz, J. (2013). Defining multilingualism. *Annual Review of Applied Linguistics*, 33, 3–18.
- Cenoz, J., & Gorter, D. (Eds.). (2015). *Multilingual education*. Cambridge University Press.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. (4th ed.). Sage.
- Cummins, J. (1976). The influence of bilingualism on cognitive growth: A synthesis of research findings and explanatory hypotheses. *Working Papers on Bilingualism*, 9.
- Cummins, J. (1979). Cognitive/academic language proficiency, linguistic interdependence, the optimum age question and some other matters. *Working Papers on Bilingualism*, 19.
- David, C., Roux, S., Bonnet-Brilhault, F., Ferré, S., & Gomot, M. (2020). Brain responses to change in phonological structures of varying complexity in children and adults. *Psychophysiology*, 57 (9), e13621. <https://doi.org/10.1111/psyp.13621>
- De Angelis, G. (2007). *Third or additional language acquisition*. Multilingual Matters.
- Dörnyei, Z. (2009). The L2 motivational self system. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 9–42). Multilingual Matters.

- Edele, A., Kempert, S., & Schotte, K. (2018). Does competent bilingualism entail advantages for the third language learning of immigrant students? *Learning and Instruction*, 58, 332–244. <https://doi.org/10.1016/j.learninstruc.2018.07.002>
- Ellis, R. (2008). *The Study of Second Language Acquisition* (2nd ed.). Oxford University Press.
- Fathi, J., Pawlak, M., Mehraein, S., Hosseini, H. M., & Derakhshesh, A. (2023). Foreign language enjoyment, ideal L2 self, and intercultural communicative competence as predictors of willingness to communicate among EFL learners. *System*, 115, 103067. <https://doi.org/10.1016/j.system.2023.103067>
- Fayyazi, A., Sahragard, R., Rovshan, B., & Zandy, B. (2014). A comparative study of bilingual and monolingual Iranian EFL students' knowledge of English grammar and vocabulary: A cognitive approach. *Journal of Linguistics & Khorasan Dialects*, 6 (10), 69–96. <https://doi.org/10.22067/lj.v6i10.36574>
- Fernández-Berkes, É., & Flynn, S. (2012). Further evidence in support of the Cumulative-Enhancement Model: CP structure development. In J. Cabrelli Amaro, S. Flynn, & J. Rothman (Eds.), *Third Language Acquisition in Adulthood* (pp. 143–164). John Benjamins Publishing Company.
- Flege, J. E. (1995). Second language speech learning: Theory, findings, and problems. In W. Strange (Ed.), *Speech Perception and Linguistic Experience: Issues in Cross-Language Research* (pp. 233–277). York Press.
- García Mayo, M. D. P., & Rothman, J. (2012). L3 morphosyntax in the generative tradition: The initial stages and beyond. In J. Cabrelli Amaro, S. Flynn, & J. Rothman (Eds.), *Third Language Acquisition in Adulthood* (pp. 9–32). John Benjamins Publishing Company.
- Genesee, F., & Cenoz, J. (Eds.). (2001). *Trends in bilingual acquisition*. John Benjamins Publishing Company.

- Griessler, M. (2001). The effects of third language learning on second language proficiency: An Austrian example. *International Journal of Bilingual Education and Bilingualism*, 4 (1), 50–60.
- Grosjean, F. (2010). Bilingualism, biculturalism, and deafness. *International Journal of Bilingual Education and Bilingualism*, 13 (2), 133–145.
- Jarvis, S., & Pavlenko, A. (2008). *Crosslinguistic influence in language and cognition*. Routledge. <https://doi.org/10.4324/9780203935927>
- Jessner, U. (2008). Teaching third languages: Findings, trends and challenges. *Language Teaching*, 41 (1), 15–56. <http://dx.doi.org/10.1017/S0261444807004739>
- Jiang, J., Chen, B., Pan, J., Wang, X., Liu, D., Jiang, J., & Long, M. (2023). Forkmerge: Mitigating negative transfer in auxiliary-task learning. *Advances in Neural Information Processing Systems*, 36, 30367–30389. <https://doi.org/10.52202/075280-1322>
- Johnson, D. C., Liu, M., Rash, K., & Slusarek, M. (2025). Advocacy and collaboration in dual language bilingual education policy and practice. *Bilingual Research Journal*, 48 (2), 155–169. <https://doi.org/10.1080/15235882.2024.2443006>
- Koda, K. (2007). Reading and language learning: Crosslinguistic constraints on second language reading development. *Language Learning*, 57, 1–44. <http://dx.doi.org/10.1111/0023-8333.101997010-i1>
- Kvale, S. (2007). *Doing interviews*. Sage. <http://dx.doi.org/10.4135/9781849208963>
- Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, 18 (2), 141–165.
- Leung, Y. K. I. (2005). L2 vs. L3 initial state: A comparative study of the acquisition of French DPs by Vietnamese monolinguals and Cantonese-English bilinguals. *Bilingualism: Language and Cognition*, 8 (1), 39–61. <https://doi.org/10.1017/S1366728904002044>

- Li, G., Lin, Z., Zhen, F., Gunderson, L., & Ji, R. X. (2023). Home literacy environment and early biliteracy engagement and attainment: A gendered perspective. *Bilingual Research Journal*, 46 (3–4), 258–274. <https://doi.org/10.1080/15235882.2023.2258823>
- Liu, Y., Cheong, C. M., Ng, R. H. W., & Tse, S. K. (2023). The role of L1 self-efficacy in L2 reading comprehension: An exploration of L1-L2 cross-linguistic transfer. *International Journal of Bilingual Education and Bilingualism*, 27 (7), 883–897. <https://doi.org/10.1080/13670050.2023.2290478>
- Lohndal, T., Rothman, J., Kupisch, T., & Westergaard, M. (2019). Heritage language acquisition: What it reveals and why it is important for formal linguistic theories. *Language and Linguistics Compass*, 13 (12), e12357. <https://doi.org/10.1111/lnc3.12357>
- Macaro, E. (2005). Codeswitching in the L2 classroom: A communication and learning strategy. In E. Llurda (Ed.), *Non-Native Language Teachers: Perceptions, Challenges and Contributions to the Profession* (pp. 63–84). Springer. http://dx.doi.org/10.1007/0-387-24565-0_5
- Mariani, N., Abdullah Al-Rawe, M. F., Al-Salami, A. A. A., & Kumar, T. (2024). The impact of bilingualism on learning a third language: A case study of Iraqi learners of Indonesian. *International Journal of Society, Culture & Language*, 12 (2), 28–36. <https://doi.org/10.22034/ijscel.2023.2008408.3119>
- Mirvahedi, S. H., Rajabi, M., & Aghaei, K. (2022). Family language policy and language maintenance among Turkmen-Persian bilingual families in Iran. In L. Wright & C. Higgins (Eds.), *Diversifying family language policy* (pp. 195–216). Bloomsbury. <https://doi.org/10.5040/9781350189928.ch-010>
- Odlin, T. (1989). *Language transfer: Cross-linguistic influence in language learning*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139524537>
- Okati, F. (2012). *The vowel systems of five Iranian Balochi dialects*. Acta Universitatis Upsaliensis.

- Okati, F. (2025). Typological and contrastive analysis of perception/cognition mental verbs in genetically related Iranian language varieties: Persian, Balochi, Sistani. *Journal of Sistan and Baluchistan Studies*, 5 (2), 25–48.
- Pando, M., León, M., Dougherty, C. A., & del Rosal, K. (2025). Exploring dual language teachers' experiences, perceptions and pedagogical implications of ChatGPT in emergent bilingual education. *Bilingual Research Journal*, 48(4), 480–494. <https://doi.org/10.1080/15235882.2025.2478499>
- Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative Social Work*, 1 (3), 261–283. <https://doi.org/10.1177/1473325002001003636>
- Pörschmann, C., & Arend, J. M. (2023). Investigating phoneme-dependencies of spherical voice directivity patterns II: Various groups of phonemes. *The Journal of the Acoustical Society of America*, 153 (1), 179–190. <https://doi.org/10.1121/10.0016821>
- Rivera Zurita, M., Paolieri, D., Iniesta, A., & Bajo, M. T. (2023). Second language acquisition of grammatical rules: The effects of learning condition, rule difficulty, and executive function. *Bilingualism: Language and Cognition*, 26(4), 639–652. <https://doi.org/10.1017/S1366728922000815>
- Ryan, È. (2021). The impact of home literacy on bilingual vocabulary development. *Bilingual Research Journal*, 44 (1), 108–123. <https://doi.org/10.1080/15235882.2021.1905105>
- Ryan, S., & Dörnyei, Z. (2013). The long-term evolution of language motivation and the L2 self. *Fremdsprachen in der Perspektive lebenslangen Lernens*, 14 (1), 89–100.
- Salimi, H., Jabbari, A. A., & Ghoorchaie, B. (2024). Third language acquisition of English adjective placement by Turkmen-Persian male and female bilinguals. *Critical Applied Linguistics Studies*, 1 (2), 148–169. http://cals.gonbad.ac.ir/browse.php?a_code=A-10-34-1&slc_lang=en&sid=1

- Sánchez, M. A. (2015) Integrating Sustainability Issues into Project Management. *Journal of Cleaner Production*, 96, 319-330. <https://doi.org/10.1016/j.jclepro.2013.12.087>
- Stander, M. (2020). The relationship between language learning strategies and language proficiency amongst multilingual L2 students. *Scrutiny2*, 25 (1), 86–103. <https://doi.org/10.1080/18125441.2020.1809505>
- Stander, M. (2022). The relationship between language learning strategies, affective factors and language proficiency. *Language Learning in Higher Education*, 12 (2), 391–408. <https://doi.org/10.1515/cercles-2022-2053>
- Sun, H. (2020). Is L2 exposure always a strong modulator of L1 influence? Evidence from Chinese EFL learners acquiring English collocations. *International Journal of English Linguistics*, 10 (5), 23–38. <https://doi.org/10.5539/ijel.v10n5p23>
- Tahoori Asl, F. (2012). *Exploring the psychological factors of Krashen in multilinguals* [Master's thesis, University of Urmia].
- Tusi Nasrabadi, M., & Khezri, F. (2025). In the shadow of English: Reimagining L2 motivation through languages other than English (LOTE)-learners' voices from Iran. *Critical Applied Linguistics Studies*, 2 (1), 91–122. <http://cals.gonbad.ac.ir/article-1-55-en.pdf>
- Vakilifard, A., & Atashgaran, M. (2024). Revolutionizing pronunciation mastery in Persian: Impact of gender, age, and educational level on learning strategies. *Critical Applied Linguistics Studies*, 1 (2), 72–90. <http://cals.gonbad.ac.ir/article-1-47-en.html>
- Vieira, C., Mariz, D., & Hoki, L. (2023). A routine to develop inferencing skills in primary school children. In *Cultivating Reasonableness in Education: Community of Philosophical Inquiry* (pp. 95–117). Springer Nature Singapore.
- Yin, R. K. (2018). *Case study research and applications*. (6th ed.). Sage.