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Empowering EFL learners: How teacher interactional scaffolding and peer collaborative scaffolding reshape EFL learners' reading comprehension

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Abstract

Reading comprehension is a fundamental skill for language learners, yet EFL students often encounter obstacles in developing this ability. Grounded in the sociocultural theory, the current study explored the impact of teacher interactional scaffolding and peer collaborative scaffolding on the reading comprehension of Iranian EFL learners in a blended learning context. A mixed-methods approach was employed, incorporating quantitative analysis of pre-and post-reading comprehension tests as well as qualitative examination of semi-structured interviews. The findings revealed that both teacher interactional scaffolding and peer collaborative scaffolding significantly enhanced learners' reading comprehension. However, no statistically significant difference was found between the two scaffolding approaches. Qualitative data analysis uncovered EFL learners' positive attitudes toward both forms of scaffolding, citing the dynamic support, collaborative problem-solving, and development of metacognitive skills as key benefits. The study underscores the pivotal role of scaffolding in facilitating EFL reading comprehension, with teacher interactional and peer collaborative scaffolding serving as complementary pedagogical strategies. Implications of this research include the need for EFL instructors to incorporate a judicious blend of teacher-led and peer-mediated scaffolding techniques to optimize learners' reading comprehension development. Additionally, the study highlights the adaptability of scaffolding approaches to blended learning environments, where the interactions between teachers, peers, and learners may necessitate innovative scaffolding implementations. This research contributes to the growing body of literature on the efficacy of sociocultural learning principles in enhancing EFL reading comprehension.

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1. Introduction

Reading comprehension is an essential ability for language learners, as it underpins their capacity to understand and engage with written texts. (Schmitt et al., 2011; van Zeeland & Schmitt, 2013). However, English as a Foreign Language (EFL) learners often encounter obstacles in enhancing their reading comprehension skills. These challenges may arise from factors such as limited exposure to the target language outside the classroom, unsuitable instructional methods, and the ineffective application of reading strategies (Karimi & Jalilvand, 2014; Liu et al., 2024; Muna, 2018).

Sociocultural learning theories, including Vygotsky's (1978) idea of the Zone of Proximal Development (ZPD), highlight the significance of social interaction and scaffolding in the learning process. Scaffolding refers to the assistance provided by a more knowledgeable individual, such as a teacher or peer, to help a learner in completing tasks that exceed their current level of ability (Mansouri & Mashhadi Heidar, 2020; Saye & Brush, 2002). Two primary types of scaffolding have been distinguished: interactional scaffolding, which consists of the context-specific support that a teacher or peer offers during the learning experience, and planned scaffolding, which involves pre-established supports designed to address anticipated challenges that students may face (Saye & Brush, 2002).

While numerous studies have investigated the effects of various forms of scaffolding on the learners' reading comprehension ability (Kivi et al, 2021; Liu et al., 2024; Salem, 2017; Yusuk, 2018; Zarei & Alipour, 2019), fewer studies have focused on the potential impact of teacher interactional scaffolding and peer collaborative scaffolding, especially in the context of blended EFL classes. Therefore, to address this gap, the current research aimed to explore the impact of these two types of scaffolding on EFL learners' reading comprehension ability.

2. Literature Review

2.1. Theoretical Foundations of Scaffolding

Sociocultural theory, as proposed by Vygotsky (1978), serves as the theoretical

basis for the concept of scaffolding. Vygotsky posits that learning is fundamentally a socially mediated phenomenon, wherein more knowledgeable individuals, such as educators or capable peers, assist learners in acquiring new knowledge and skills. A fundamental aspect of Vygotsky's theory is the Zone of Proximal Development (ZPD), which represents the space between what a learner can accomplish independently and what they can achieve with the guidance and support of a more knowledgeable individual (Booth, 2012; Rodgers, 2017).

Engaging with individuals who possess greater competence is crucial for personal development, as articulated by Vygotsky (1978), who established his framework based on scaffolding. Vygotsky, emphasized the role of the individual within a collaborative context, highlighted that learning initially occurs through social interactions among children and those in their environment before being internalized at a personal level. Furthermore, social learning often involves mentorship from more experienced individuals, be they peers or adults, who guide or collaborate with less proficient learners during the educational process (Lin, 2015). The term scaffolding, describes the assistance provided by teachers or peers to help learners maneuver through their ZPD and complete tasks that exceed their current competencies (Ankrum et al., 2014; Chen, 2024; Reynolds & Daniel, 2018; Walqui, 2006). Saye and Brush (2002) differentiate between two forms of scaffolding: soft (interactional) scaffolding and hard (planned) scaffolding. Interactional scaffolding is characterized by the context-sensitive and dynamic support that teachers or peers offer during the learning process, whereas planned scaffolding consists of predetermined supports established to address expected challenges that students may encounter.

2.2. Scaffolding and Reading Comprehension

Reading comprehension is a multifaceted process that involves the interaction between the reader, the text, and the intended purpose of reading (Beland, 2014; Lee, 2021; Shin et al., 2020; Snow, 2002). Scaffolding has been identified as a valuable approach for enhancing EFL learners' reading comprehension by assisting them in accessing and utilizing their prior knowledge, employing effective reading strategies, and engaging with texts in meaningful ways (Riazi & Rezaii, 2011; van Zeeland & Schmitt,

2013; Yusuk, 2018; Zarei & Alipour, 2019).

Previous research has investigated the effects of different scaffolding methods on reading comprehension. For instance, Buli et al. (2017) demonstrated that the implementation of cognitive and metacognitive scaffolding strategies—such as predicting, clarifying, and summarizing—can enhance EFL learners' reading skill. Similarly, Salem (2017) indicated that scaffolding techniques like modeling, questioning, and providing feedback can help EFL learners develop their reading skill and overcome challenges. Furthermore, Zarei and Alipour (2019) explored the impact of peer scaffolding, distributed scaffolding, and reciprocal scaffolding on L2 reading comprehension, concluding that these strategies, when combined with multimodal materials, can significantly support the development of reading comprehension among EFL learners.

2.3. Interactional Scaffolding and Peer Collaborative Scaffolding

While the existing literature has highlighted the advantages of scaffolding for reading comprehension (Abdulaal et al., 2024; Dabarera et al., 2014; Dehqan & Ghafar Samar, 2014; McGrath et al., 2016; Zhang & Zhang, 2018), fewer studies have highlighted the potential impact of teacher interactional scaffolding and peer collaborative scaffolding. Interactional scaffolding, provided by the teacher during the learning process, can offer dynamic, situation-specific support tailored to the individual needs of the learners (Saye & Brush, 2002). This type of scaffolding can involve questioning, modeling, feedback, and other interactive strategies that help learners navigate their ZPD and overcome specific challenges they face during the reading task.

Peer collaborative scaffolding, on the other hand, refers to the support that learners provide to one another during collaborative learning activities (Gánem-Gutiérrez & Gilmore, 2018; Hamidi & Bagherzadeh, 2018; Nassaji & Cumming, 2000; Saye & Brush, 2002). This form of scaffolding can foster a sense of shared responsibility and collective problem-solving, as learners work together to understand the text, clarify concepts, and develop effective reading strategies. Peer collaborative scaffolding can also promote the development of metacognitive skills, as learners engage in discussions, explain their thought processes, and provide feedback to one another.

The effects of teacher interactional scaffolding and peer collaborative scaffolding

may be particularly beneficial for EFL learners' reading comprehension (Kivi et al, 2021). By receiving dynamic support from the teacher and engaging in collaborative problem-solving with their peers, learners can develop a deeper understanding of the text, as well as more effective reading strategies that they can apply in future learning tasks (Amirian & Ramazanian, 2017).

2.4. Scaffolding in Online and Blended EFL Classes

The shift toward online and blended learning environments has brought about new challenges and opportunities for the implementation of scaffolding strategies. In these contexts, the interactions between teachers and learners, as well as among learners themselves, may undergo significant transformations (Osman et al., 2020). Teachers may need to adapt their interactional scaffolding strategies to the online or blended format, while learners may need to develop new skills for engaging in collaborative scaffolding through digital tools and platforms.

Several studies have explored the use of scaffolding in online and blended EFL classes. For example, Osman et al. (2020) found that the use of technology-mediated scaffolding, such as prompts, feedback, and online discussions, can support EFL learners' reading comprehension in a blended learning environment. Mezek et al. (2022) studied the potential effects of scaffolding on L2 learners' academic reading, highlighting task-based and feedback-based scaffolding, and showed that L2 learners' self-regulating behaviors were linked with these scaffolding strategies.

However, the differences and the possible advantages of teachers' interactional scaffolds and peer collaboration as a form of scaffold have received fewer attention. Furthermore, very few studies have considered the impact of the two forms of scaffolding within online and blended contexts where teachers' facilities and affordances are different and they may influence EFL learners' reading comprehension in a positive or negative direction. Therefore, this study was an attempt to explore the impact of teachers' interactional scaffolds versus learners' collaborative scaffolding on EFL learners' reading comprehension in blended contexts. Additionally, EFL learners' attitudes toward the two forms of scaffolding were examined. Hence, the following research questions were formulated to address the objectives of the study:

RQ 1. Does teacher's interactional scaffolding have any effect on Iranian EFL learners' reading comprehension skill in blended classes?

RQ 2. Does peers' collaborative scaffolding have any effect on Iranian EFL learners' reading comprehension skill in blended classes?

RQ 3. Is there a significant difference between the effects of teacher's interactional scaffolding and peers' collaborative scaffolding on Iranian EFL learners' reading comprehension skill in blended classes?

RQ 4. What are EFL learners' attitudes toward teacher's interactional scaffolding and peers' collaborative scaffolding in their reading comprehension blended classes?

3. Methodology

3.1. Research Design

This study employed a mixed-methods research design, combining quantitative and qualitative data to explore the effects of teacher interactional scaffolding and peer collaborative scaffolding on EFL learners' reading comprehension. To evaluate the efficacy of teachers' interactional scaffolding and peers' collaborative scaffolding on reading comprehension, quantitative data collection methods – reading comprehension pretests and posttests – were adopted. On the other hand, students' perceptions and attitudes about the treatment were explored through semi-structured interviews.

3.2. Context and Participants

This study was conducted in a private language center in Tehran where English is being instructed from beginning levels to advanced levels. To investigate the purpose of this study, the learners of intermediate level were selected to participate in this study. The classes were all held in a blended mode with 5 online and 15 face-to-face sessions.

The participants were 81 intermediate EFL level learners, both males and females. They were aged between 17 and 32 years. There were six classes of 15, 14, 12, 15, 13, 12 students: three experimental groups which received teacher scaffolding and three

experimental groups which received peer scaffolding. The textbook they studied was the American English File 2nd edition. The participants were selected through convenience sampling. Before conducting the research, the Oxford Quick Placement Test was administered to the participants to check their homogeneity in terms of English language proficiency.

3.3. Instruments

A) The Oxford Quick Placement Test

The Oxford Quick Placement Test was utilized as a standardized instrument to assess the English language proficiency of the participants. This test was designed to evaluate various language skills, including grammar, vocabulary, and reading comprehension, through a series of multiple-choice questions. This test, widely recognized for its reliability and validity, consisted of two sections: a grammar and vocabulary section with 40 multiple-choice questions and a reading comprehension section with 20 multiple-choice questions. It provided a practical and efficient means of determining the appropriate language learning level of participants, ranging from beginner to advanced. In this study, Oxford Quick Placement Test was administered at the outset to ensure the homogeneity of the participants in terms of their English proficiency.

B) Reading Comprehension Test

To determine learners' reading comprehension skill before and after the instruction, the reading section of American English File was employed as the pre-test and post-test. In fact, two versions of a similar test were used for pre-test and post-test.

C) Semi-structured Interviews

In order to explore learners' perceptions about the scaffolding strategies implemented in the two experimental groups, eight learners from teacher interactional scaffolding group and eight learners from peer collaborative scaffolding group were selected to participate in a semi-structured interview at the end of the course. The interview items were selected from the relevant literature and some items were designed by the researchers. Each interview session lasted approximately 30 minutes, allowing for in-depth discussions and reflections on their experiences. The interviews were conducted

in Persian to ensure that participants could express their thoughts comfortably and accurately. All sessions were audio-recorded with the participants' consent, which was obtained prior to the interviews. This process adhered to ethical guidelines, ensuring that participants were fully informed about the purpose of the study and their right to withdraw at any time without consequence. Before the interviews began, participants were assured that their responses would remain confidential and would be used solely for research purposes. The audio recordings were subsequently transcribed and translated into English for interpretation and analysis.

3.4. Data Collection Procedure

Data of the present study were collected during 10 weeks with six classes. At the beginning of the course, informal consent forms were distributed and it was explained that participation in the project was voluntarily. Then, Oxford Placement Test was administered to select homogenized participants. Then, 81 intermediate learners were selected were assigned into six experimental groups. The blended learning classes consisted of 5 online sessions and 15 face-to-face sessions. The online component was conducted using the Adobe Connect platform, facilitating real-time interaction among participants and the teacher. The face-to-face sessions took place at the private language center, where learners engaged in collaborative activities and discussions.

In the experimental groups, peer and teacher scaffolding modes were utilized. In this kind of scaffolding, following the Vygotskian model of ZPD, scaffolders were supposed to empower the reading comprehension ability of their classmates. Both groups were instructed by the same educator, who is also one of the researchers involved in this study. The students in peer scaffolding groups were trained to apply scaffolding strategies. They were given guidelines such as applying oral communication, eliminating and describing unclear issues to each other, receiving feedback as well as peer evaluation while doing their exercises. More precisely, the peer collaborative scaffolding intervention focused on promoting interaction among learners to enhance their comprehension abilities through collective efforts. It included activities such as providing peer feedback, where learners offered constructive critiques on each other's work to identify strengths and weaknesses collaboratively. Learners were also encouraged to ask

questions directly to their peers rather than relying on the teacher, fostering a more interactive and independent learning environment. Additionally, during reading exercises, learners worked in pairs or small groups to exchange ideas and suggestions, enabling the sharing of diverse perspectives and strategies to tackle challenging texts. This approach was carefully monitored to ensure active participation and a supportive, focused atmosphere conducive to learning.

The teacher interactional scaffolding intervention, on the other hand, emphasized the teacher's role in facilitating learners' reading development through structured interactions. The teacher provided detailed, individualized feedback to address areas needing improvement while highlighting successful strategies. Strategic questioning by the teacher stimulated critical thinking and deeper engagement with the texts, helping learners explore meaning and structure more effectively. Furthermore, the teacher offered targeted suggestions during reading exercises, modeling practical strategies such as skimming, scanning, and using contextual clues to enhance understanding. This approach ensured that learners received professional guidance tailored to their specific needs, fostering confidence and refining their reading comprehension skills.

Both interventions were implemented over a set period, providing learners with opportunities to engage with and benefit from these distinct approaches. The textbook which was employed for both groups was American English File. Following the intervention, a post-test was conducted to evaluate the participants' reading comprehension progress in both groups. Finally, representative students from each group were selected to participate in semi-structured interview sessions.

3.5. Data Analysis Procedure

Data of the quantitative phase were analyzed using Statistical Package for Social Science 21 (SPSS) software. Descriptive statistics, such as frequencies and measures of central tendency, were applied to the data. Furthermore, the results on the pre-tests and post-tests were compared using paired samples t-tests for the first two research questions and two independent samples t-tests for the third research question to examine the relative efficiency of the two alternative teaching approaches for developing students' reading comprehension. To analyze the qualitative data from semi-structured interviews,

thematic analysis was adopted.

4. Results

4.1. First Research Question

In order to answer the research questions of the study both descriptive and inferential statistics were used. Descriptive statistics were calculated to understand the overall patterns of reading comprehension changes. Table 1 shows the means and standard deviations of the test evaluating participants' reading comprehension in the teacher scaffolding group.

The data presented in Table 1 indicated that reading comprehension of the first experimental group, that is the teacher scaffolding group, was enhanced after receiving the treatment. While the participants' reading comprehension mean in this group was 14.23 before receiving the intervention, it increased to 17.11 after they received the teacher interactional scaffolding intervention. The rather large standard deviations of the first experimental group show that the results were not so clustered around the mean.

Table 1.

Descriptive Statistics for Teacher Scaffolding

Participants	N	Pretest	Posttest	Std. Deviation 1	Std. Deviation 2
Ex-Reading (Teacher)	42	14.23	17.11	7.23	7.23

Furthermore, in order to answer the first research question and check if teacher interactional scaffolding had any statistically significant effect on EFL learners' reading comprehension, participants' scores from the pre-test and post-tests were compared conducting a paired samples t-test. As indicated in Table 2, participants' reading comprehension improved after receiving the teacher scaffolding treatment. In other words, the increase in the reading comprehension scores of the EFL learners who received the teacher scaffolding instruction was statistically significant ($p < 0.05$; Sig. (2 tailed) = 0.029). Therefore, we can claim that the first null hypothesis which was "teacher's interactional scaffolding does not have any effect on Iranian EFL learners' reading

comprehension skill" was rejected.

Table 2.

Paired samples T-test for the Effect of Teacher Scaffolding

		Mean	Std. Deviation	Std. Error Mean	Df	Sig. (2-tailed)
Teacher-Exp	Reading Comprehension	.37956	.32685	.04674	28	.029

4.2. Second Research Question

Additionally, descriptive statistics were calculated to measure the overall patterns of reading comprehension in the peer collaborative scaffolding group. Information about the means and standard deviations of the participants' reading comprehension scores are provided in Table 3. The data presented in Table 3 show that reading comprehension scores of the second experimental group; that is, the peer scaffolding group, increased after receiving the intervention. While the participants' reading comprehension scores in this group was 15.37 before receiving the treatment, it was enhanced to 17.22 after they received the peer interactional scaffolding intervention.

Table 3.

Descriptive Statistics for Peer Scaffolding

Participants	N	Pretest	Posttest	Std. Deviation 1	Std. Deviation 2
Ex-Reading (Peer)	39	15.37	17.22	6.45	6.45

Moreover, in order to answer the second research question and check if peers collaborative scaffolding had any statistically significant effect on EFL learners' reading comprehension, participants' scores from the pre-test and post-tests were compared conducting a paired samples t-test. As indicated in Table 4, participants' reading comprehension increased after receiving the peer scaffolding treatment. In other words, the increase in the reading comprehension of the EFL learners who received the peer scaffolding instruction was statistically significant ($p < 0.05$; Sig. (2 tailed) = 0.021).

Therefore, we can argue that the second null hypothesis which was "peers interactional scaffolding does not have any effect on Iranian EFL learners' reading comprehension skill" was rejected.

Table 4.

Paired samples T-test for the Effect of Peer Scaffolding

		Mean	Std. Deviation	Std. Error Mean	Df	Sig. (2-tailed)
Peer-Exp	Reading Comprehension	.27502	.43760	.07561	28	.021

4.3. Third Research Question

The results of the first two research questions showed that both peers and teacher scaffolding significantly enhanced the EFL learners' reading comprehension skill. The third research question, however, focused on the significance of the difference between the two approaches in improving learners' reading comprehension. To this end, independent t-test procedures were used to compare the reading comprehension scores between the two groups, before and after the treatment. Descriptive statistics for the reading comprehension related to pretest comparison of the two groups' test scores are presented in Table 5. As shown in Table 5, the two experimental groups had different levels of reading comprehension score before receiving the treatment. While reading comprehension mean score of the teacher scaffolding group in pretest was 14.23, the reading comprehension mean score of the peer scaffolding group was 15.37. Although the mean score of the two groups during the pretests was different, it should be investigated whether this difference was significant. To check the significance of reading comprehension difference between the two groups, the means were compared (Table 6) using independent samples t-test. The results showed that the reading comprehension difference between the two groups in the pretest was not statistically significant ($p > 0.05$; Sig. = 0.11).

Table 5.

Descriptive Statistics for Pre-test Reading Comprehension Difference of the Two Groups

Group Statistics					
	Grouping	N	Mean	Std. Deviation	Std. Error Mean
Pretest Difference	Teacher Scaffolding	42	14.23	.78531	.15075
	Peer Scaffolding	39	15.37	.69749	.13346

As it is indicated in Table 6, the result of Levene's test is higher than 0.05, which shows that the two groups are homogeneous. Since the result of Levene's test is not equal to 0 (zero), it needs to have equal variance assumed (the first row) for the Sig. (2-tailed), which was 0.121. The t-test result indicates the two groups were not significantly different before the intervention.

Table 6.

Pre-test Comparison of the Two Groups' Reading Comprehension Difference

		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Pretest Difference	Equal Variances Assumed	.594	.11	-1.565	56	.121	-.25258	.17213
	Equal Variances Assumed			-1.565	54.237	.123	-.25258	.17213

Moreover, the descriptive statistics for the posttest reading comprehension difference of both groups are presented in Table 7. The results indicated that the two groups performed differently in the posttests.

Table 7.

Descriptive Statistics for Post-test Reading Comprehension Difference of the Two Groups

Group Statistics					
	Grouping	N	Mean	Std. Deviation	Std. Error Mean
Posttest Difference	Teacher Scaffolding	42	17.11	.74301	.12710
	Peer Scaffolding	39	17.22	.75410	.15802

Independent samples t-test was run to check if this difference was statistically significant or not. The findings of post-test indicated that although the teacher scaffolding and peer scaffolding significantly and differently influenced the learners' reading comprehension scores, the difference between these two approaches was not statistically significant as shown in Table 8.

Table 8.

Post-test Comparison of the Two Groups' Reading Comprehension Difference

		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Posttest Difference	Equal Variances Assumed	.001	.864	2.572	56	.723	.47691	.18651

4.4. Fourth Research Question

To explore students' perceptions about teacher and peer scaffolding the results of semi-structured interviews were analyzed and the most recurrent themes and categories of the responses were counted. Table 9 illustrates the most recurrent themes of the responses regarding teacher and peer scaffolding.

Table 9.

Themes Extracted about Students Perception

	Themes
Teacher Scaffolding	Instructive Innovative Pleasant Challenging

	Clear focus
	Enhanced time management
	Good for finding problem solutions
	Greater focus
	Help develop reading comprehension skill
	Good for avoiding confusion
	Led to a directed attention
	Raise awareness
Peer Scaffolding	Instructive
	Innovative
	Pleasant
	Encouraging
	Help real progress
	Sharing ideas
	Effective for finding problems
	Better comprehension
	Raised my interest
	Easier task performance

The themes extracted about students' general perceptions of scaffolding strategies used in the class were "instructive", "innovative", "challenging", and "pleasant". The majority of the students who were interviewed believed that the scaffolding activities facilitated their learning. They also mentioned that the activities were creative in a way that they created a refreshing learning environment. A number of students highlighted the challenging aspect of both teacher and peer scaffolding strategies. They stated that such activities set the ground for a stimulating learning context for reading comprehension. Furthermore, they emphasized the positive emotional aspect of their learning as these activities generated a pleasant and enjoyable learning environment.

A theme which was concurrent with regard to peer scaffolding activities was the "encouraging" nature of working with their classmates. Students argued that helping and receiving help from their peers raised their confidence and encouraged them to make more effort. In the same vein, they stated that working with their peers would reduce their stress particularly when the reading comprehension activity was difficult. The student interviews also showed that transfer of responsibility occurred during the peer scaffolding activities.

The interactions between teachers and students in online learning environments allowed teachers to assess students' current understanding and provide adaptive support. These dialogues were essential for facilitating the "handing over knowledge and

skills" (Muhonen et al., 2016, p. 144). Interviews indicated that the two scaffolding strategies employed were effective in supporting students' learning activities in online and blended reading comprehension settings. Consequently, integrating teacher and peer scaffolding within a blended learning framework could significantly enhance students' reading comprehension abilities.

Most students acknowledged that the adaptive support and timely instructions from teachers helped their understanding of tasks and improved their reading skills, enabling them to progress and manage their problem-solving processes. Several students noted that peer scaffolding positively influenced their emotions, motivating them to engage in independent thinking and exploration, even in the face of challenges. Findings from the student interviews revealed that peer scaffolding significantly impacted their learning and perception of reading. The teacher's adaptive support and interventions helped students connect new information to their existing knowledge, facilitating comprehension, practice, and problem-solving.

5. Discussion

The aim of this study was to examine the influence of teacher and peer scaffolding on the reading comprehension of Iranian EFL learners. Despite the fact that the treatment was only used for a few weeks due to practical concerns, the results of the analyses were consistent with those of earlier research (e.g., Akiyama & Fleshler, 2013; Marzban & Arabahmadi, 2013). Based on the results, it was revealed that both teacher and peer scaffolding had statistically significant effects on the reading comprehension of EFL learners. This leads to the conclusion that students appreciated the scaffolding offered by the teachers and peers in the course.

Theoretically, this positive response serves as a measure of scaffolding effectiveness, as students must recognize the available scaffolding to leverage it for optimal learning (Belland, 2014; Enyew & Yigzaw, 2015). While initial informal discussions indicated students were aware of the scaffolding, the results revealed disparities between their levels of awareness and their current interpretations of what the instructor scaffolded.

During the interviews, social factors were emphasized in relation to collaborative online scaffolding, suggesting the emergence of a concept termed "social scaffolding." Based on post-test results, evidence indicated that students recognized and appreciated the human aspect of online learning environments. Consequently, the instructor fostered a welcoming, motivating, and social atmosphere, enabling students to engage more readily in learning activities and build community. This highlights the instructor's role in addressing both the social and cognitive dimensions of learning, which can particularly be relevant in online and blended settings. Existing research supports the notion that social interaction is pivotal in technology-enhanced classrooms, as "the social process of building shared understanding through contact is the 'natural' way for people to learn" (Kreijns et al., 2003).

Additionally, our findings corroborate the work of Channa et al. (2018), who noted that the implementation of planning, monitoring, and evaluating strategies enhanced learners' comprehension and language proficiency. Other studies have confirmed that metacognitive scaffolding strategies contribute to improved outcomes in collaborative tasks (Pifarre & Cobos, 2010) and facilitate social metacognitive activities (Azevedo et al., 2008).

The majority of interviewees from both groups generally found the strategies to be informative. This aligns with Yelland and Masters' (2007) assertion that effective teachers use scaffolding strategies as instructional tools for skill acquisition. Furthermore, many students regarded the strategies as enjoyable, which may be partly explained by earlier studies suggesting that high-quality scaffolding fosters nurturing, positive environments that enhance students' academic growth (Hong & Nguyen, 2019; Raphael et al., 2008) and shape lifelong attitudes (Oxford, 2016). Thus, even if the cognitive advantages of scaffolding methods were not immediately evident, the positive attitudinal benefits associated with these procedures likely contribute to learners' developmental potential.

This increased potential resulting from scaffolding has been supported in recent research. Studies by Ahmadi Safa and Rozati (2017), and Swain and Lapkin (2000) have also indicated that scaffolding techniques significantly assist EFL learners in enhancing their listening comprehension skills, emphasizing the capacity of scaffolding to aid

learners in improving their abilities, internalizing critical thinking strategies, and becoming more proficient and literate thinkers.

5. Conclusion

According to the findings of the study, employing both teacher and peer scaffolding positively influenced EFL learners' reading comprehension and underscored their positive attitudes toward both methods. Furthermore, the quantitative and qualitative analyzes confirmed the efficacy of both peer and teacher scaffolding strategies. In essence, these strategies enabled EFL learners to enhance their awareness of their cognitive processes and approach reading tasks more systematically and deliberately (de Oliveira et al., 2021). Additionally, while both the peer and teacher scaffolding groups expressed satisfaction with the scaffolding strategies employed, describing them as instructive, enjoyable, innovative, and motivating, it is important that instructors take into account various factors when evaluating the effectiveness of the scaffolding provided (Abdulaal et al., 2024). These factors should include metacognitive abilities, cognitive development, learning outcomes, student engagement, and motivation, among others.

Regarding the limitations of the study, it is essential to acknowledge that any attempts to generalize the findings to other L2 contexts should be approached with caution due to several constraints. Firstly, the researchers faced challenges in achieving a truly random selection of participants, which could impact the generalizability of the results. Secondly, the study focused on specific age groups and English proficiency levels, necessitating careful consideration before applying the findings to different age cohorts or proficiency ranges.

In conclusion, this study highlights the significant role that both teacher interactional scaffolding and peer collaborative scaffolding play in fostering EFL learners' reading comprehension skill and promoting positive attitudes toward learning. By integrating these strategies, educators can create a balanced, dynamic, and engaging learning environment that addresses diverse learner needs. The findings emphasize the importance of scaffolding not only as a means of academic support, but also as a tool for enhancing L2 learners' metacognitive awareness and fostering a deeper, more

systematic approach to reading. Future research should continue to explore how these scaffolding methods can be adapted and optimized for various educational contexts, including different cultural settings, learning styles, and technological integrations. Through such efforts, a broader understanding of the potential impact of scaffolding strategies on L2 learning can be achieved, paving the way for more inclusive and effective teaching practices.

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The impact of in-text feedback vs. rubric-based feedback on writing performance and self-efficacy of Iranian intermediate EFL learners

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Abstract

The primary aim of this quasi-experimental study was to delve into the contrasting effects of In-text Feedback and Rubric-based Feedback on the writing performance and self-efficacy of Iranian Intermediate English as a Foreign Language (EFL) learners. To do so, 120 intermediate female English language learners between the ages of 12 and 16 were recruited based on non-random convenience sampling method from an English language institute to take Oxford Placement Test (OPT) to ensure a homogenized group of participants. Then, 60 participants whose scores fell within one standard deviation below and above the mean OPT score were recruited. The selected participants were randomly assigned to one of three groups: the in-text group, the rubric-based group, and the control group, with each group consisting of 20 students. Each group also took writing pre-test and completed self-efficacy questionnaire before the treatment. Next, the participants engaged in the assigned writing activities which were similar and received relevant feedback types for ten sessions. After the treatment, all groups took writing post-test and completed the self-efficacy questionnaire again. The results revealed that both in-text feedback and rubric-based feedback had a statistically significant effect on the writing performance of the learners. Additionally, there was a significant difference in the effect of in-text feedback versus rubric-based feedback on writing performance. In terms of self-efficacy, both types of feedback showed a statistically significant effect. However, there was no significant difference between the effects of in-text feedback and rubric-based feedback on self-efficacy. The findings of the study carry important implications for various stakeholders involved in English as a Foreign Language (EFL) learning, including learners, teachers, language centers, and teacher trainers.

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1. Introduction

English has become an indispensable skill across the globe, and it is recognized as an international language that cuts across various disciplines (Rao, 2019). Writing presents a formidable challenge for learners in terms of language skills (Cole & Feng, 2015). It is widely acknowledged as an intricate and demanding process, often considered the most difficult aspect of language learning (Brown, 2007). Developing and organizing original ideas within the appropriate context adds to the complexity of the issue (Richards & Schmidt, 2013). Consequently, many students exhibit negative attitudes towards writing and lack of motivation to improve their skills, as observed by Price and Kadi-Hanifi (2011).

In addition, writing, among the four language skills, has been unjustly neglected, requiring greater attention from instructors (Riadil & Nur, 2020). Weal (2013) posited that writing poses greater challenges for English learners acquiring it as a second or foreign language. At various educational levels, students are tasked with writing essays and reports as part of their curriculum in foreign and second language learning (Bailey & Huang, 2011).

The complexity of the writing skill is often cited as a reason for learners' struggles, as noted by Alfaki (2015). Salaxiddinovna (2022) reported that both English language learners and their teachers face significant challenges in developing writing skills. Similarly, Eryilmaz and Yesilyurt, (2020) unequivocally described writing as arduous work for any English language learner (ELL). Many students lament their lack of ideas and inability to produce engaging texts, even in their native language (Al-Mukdad, 2019; Pablo & Lasaten, 2018).

Additionally, Xiaoxiao and Yan (2010) highlighted the multifaceted nature of writing in English, encompassing skills such as selecting appropriate topics for specific audiences, generating logical and precise ideas, organizing rich and relevant content, and employing accurate language expressions. These skills demand independent thinking abilities, including classification, evaluation, and synthesis. Hyland (2003) further emphasized the additional elements that contribute to the difficulty of writing and mentioned that mastery in writing involves considering mechanics, content, structure, and style when writing in a second or foreign language. Graham and Harris (2005) described the components of writing performance as content, organization,

vocabulary, grammar, and mechanics and emphasized strengthening each of these subskills undoubtedly bolsters writing performance.

Extensive research in this realm clearly indicated that offering students feedback on their writing can play a vital role in improving their writing performance (Annisa & Gusnawaty, 2024; Rahman, 2017; Szlachta et al., 2023). English language learners (ELLs) greatly benefit from writing practice and the invaluable revisions they make upon submitting their written work. Consequently, the final draft of learners' writing can serve as a tangible representation of their growth. Moreover, the nature of the feedback the students receive, exerts a significant impact on their overall writing performance (Mallahi, & Saadat, 2020).

A comprehensive review of the literature has revealed that a considerable body of research has investigated the effectiveness of corrective feedback (CF) in enhancing students' writing performances (Mao et al., 2024; Nagode et al., 2014; Sarvestani & Pishkar, 2015). Most studies in this domain consistently demonstrated the helpfulness and efficacy of the feedback as a tool for improving writing proficiency. A series of recent studies (Brooks et al., 2021; Cheng & Zhang, 2021; Huisman et al., 2019; Mahmoudi & Bugra, 2020) specifically delved into the effectiveness of different types of CF in supporting ELLs in their quest to enhance writing performance. However, despite these efforts, the research community remained engaged in ongoing debates and discussions concerning the interpretation of research findings and the overall benefits of CF.

Moreover, self-efficacy emerges as a significant motivational factor examined by educational psychologists (Lane et al., 2004; Pajares & Valiante, 1999; Shell et al., 1995). Writing self-efficacy refers to individuals' appraisal of their composition, grammar, usage, and technical abilities in successfully completing writing tasks (Pajares & Valiante, 2001). According to Bandura (1986), self-efficacy pertains to learners' confidence in their capacity to succeed, learn new material, and accomplish tasks to the required standard. He also added students with high self-efficacy possess problem-solving strategies that have proven effective in the past, attributing success to their efforts and acknowledging mistakes as part of the learning process. In contrast, low-self-efficacious learners exert less effort, fearing that any attempt will reveal their incompetence. They also opt for less challenging tasks to minimize errors.

Following an extensive examination of research literature pertaining to the improvement of writing performance through various types of feedback (Alnasser & Alyousef, 2015; Rahimi, 2021; Wahyuni, 2017), the researchers in this study identified an opportunity to contribute new findings to the existing body of knowledge. Specifically, the researchers aimed to explore the impact of in-text feedback and rubric-based feedback on the writing performance and self-efficacy of Iranian intermediate English as a Foreign Language (EFL) learners—an aspect that had remained unexplored in the previous studies. Hence, this study was conducted and the following research questions were posed:

RQ1: Does in-text feedback have any statistically significant effect on the writing performance of Iranian intermediate EFL learners?

RQ2: Does rubric-based feedback have any statistically significant effect on the writing performance of Iranian intermediate EFL learners?

RQ3: Is there any statistically significant difference between the effects of in-text feedback vs. rubric-based feedback on the writing performance of Iranian intermediate EFL learners?

RQ4: Does in-text feedback have any statistically significant effect on the self-efficacy of Iranian intermediate EFL learners?

RQ5: Does rubric-based feedback have any statistically significant effect on the self-efficacy of Iranian intermediate EFL learners?

RQ6: Is there any statistically significant difference between the effects of in-text feedback vs. rubric-based feedback on the self-efficacy of Iranian intermediate EFL learners?

2. Review of the Related Literature

The realm of writing assignments presented a formidable challenge for English students, and it was imperative to provide them with substantial support to enhance their skills. The demands of their future professions necessitated proficiency and precision in writing. Over the past five decades, a variety of pedagogical approaches to teaching L1/L2 writing have emerged, each representing a distinct perspective on the nature of writing, with the aim of helping students enhance their writing skills

(Annisa & Gusnawaty, 2024; Rahman, 2017; Szlachta et al., 2023). These instructional methods reflect the significant advancements made in L1/L2 writing situations.

In the realm of teaching writing to English as a Second Language (ESL) or English as a Foreign Language (EFL) students, the function of feedback, its significance, and impact have been central concerns in academic research (Paltridge, 2004; Reichelt, 1999). Scholars and researchers have widely recognized the crucial roles the feedback plays in the writing process, as evident from the vast body of research exploring various forms of feedback and their effects on student writing (Annisa & Gusnawaty, 2024; Szlachta et al., 2023).

Receiving feedback allows students to become aware of specific areas that require improvement and refinement in their written texts. As highlighted by Carless (2006), students who receive feedback during the writing process develop a deeper understanding of their progress and gain valuable guidance on how to enhance their work. Moreover, feedback has the potential to influence students' emotions and behaviors regarding their writing, as well as guide their attention toward writing goals. It serves as a bridge between students' current abilities and expected performance, thus assessing their task achievement and effectiveness in fulfilling their writing objectives (Brookhart, 2003; Schwartz & White, 2000).

Also, self-efficacy beliefs play a fundamental role in shaping human agency, influencing how individuals perceive their ability to perform specific tasks (Bandura, 1997; 2001). These beliefs have a significant impact on various cognitive, motivational, affective, and decision-making processes that determine an individual's actions and outcomes (Bandura, 1997; Bandura & Locke, 2003). Self-efficacy beliefs instill a sense of control and determine individuals' belief in their own capabilities, their resilience in the face of challenges, their emotional well-being, and the choices they make during critical moments (Bandura & Locke, 2003).

Several studies have investigated the impact of feedback on EFL learners' writing performance and self-efficacy. A study conducted by Dirkx et al. (2021) aimed to explore how instructors utilized feedback delivered as in-text comments compared to comments that refered to the rubric, and whether these feedback modalities could be used more effectively. The researchers investigated the nature, intensity, and

purpose of the feedback in these two modes. The findings revealed that there were nearly five times as many in-text comments as there were additional comments referring to the rubric. Moreover, the in-text comments were found to contain more process- and feed forward-oriented remarks. In a related study, Ferris (2006) examined the effects of written feedback on ESL learners' writing development. The findings showed that comprehensive corrective feedback that addressed both surface-level errors and higher-order concerns contributed to learners' improvement in writing quality. In another study, Carless (2006) investigated the impact of different types of feedback (direct corrective feedback, indirect corrective feedback, and praise) on students' writing performance. The results indicated that both types of corrective feedback were effective in improving students' writing, with direct corrective feedback leading to greater improvements in accuracy.

Similarly, Göçer and Şenel (2017) investigated the effectiveness of different types of feedback (direct correction, indirect correction, and metalinguistic feedback) on Turkish learners' written accuracy. The results indicated that metalinguistic feedback, which focused on explaining the underlying grammatical rules, had a positive impact on learners' accuracy. Furthermore, Derham et al. (2021) emphasized that in-text comments on feedback often focus primarily on the task without providing additional guidance. Also, their study highlighted the importance of considering linguistic characteristics that can promote self-regulation.

In summary, providing feedback is a crucial tool for enhancing the writing performance and self-efficacy of English as a Foreign Language (EFL) learners. According to recent research (Annisa & Gusnawaty, 2024; Rahman, 2017; Szlachta et al., 2023), feedback that fosters student engagement, comprehension, and action is vital in promoting self-regulation and feedback literacy among students. However, more investigation is necessary to determine the most effective feedback modalities for enhancing EFL learners' writing proficiency and self-efficacy. As a result, the researchers in this study identified an opportunity to contribute new findings to the existing body of knowledge and aimed to explore the impact of in-text feedback and rubric-based feedback on the writing performance and self-efficacy of Iranian intermediate English as a Foreign Language (EFL) learners—an aspect that have remained unexplored in previous studies, yet.

3. Methodology

3.1. Design

This study utilized a quasi-experimental design with two experimental groups and a control group, employing a pre-test, post-test design. This approach was deemed appropriate due to the limitations of selecting a large and randomly assigned sample from the population. Additionally, the study required the implementation of two distinct treatments. The use of pre-test and post-test measures enabled the assessment of changes in participants' self-efficacy and writing performance over time.

3.2. Participants

In this study 120 intermediate female English language learners between the ages of 12 and 16 from an English language institute in Shahr-e-Qods City were recruited non-randomly and following convenience sampling technique. To ensure a homogenized group of participants, the participants were selected based on their scores on the Oxford Placement Test (OPT) and finally 60 participants whose scores fell within one standard deviation below and above the mean OPT scores were selected. The selected participants were randomly assigned to one of the three groups: the in-text group, the rubric-based group, and the control group, each group consisting of 20 students.

3.3. Instruments

A range of meticulously selected instruments was employed to conduct the investigation comprehensively and gather reliable data. These instruments were carefully chosen to ensure the accuracy and effectiveness of the research methodology. The following instruments were utilized:

3.3.1. Oxford Placement Tests (OPT)

The Oxford Placement Test (OPT) served as the primary instrument for selecting 60 homogeneous participants. Developed by Oxford University Press and Cambridge ESOL, the OPT is a widely recognized and respected English language examination that offers teachers a reliable and efficient means of assessing students' language proficiency (Hill & Taylor as cited in Noroozi & Siyyari, 2019). With its straightforward administration and quick completion time of approximately 60 minutes,

the OPT was an ideal tool for placement tests and screening purposes in this research. As it assessed an individual's overall English proficiency and was considered a reliable measure, as evidenced by a high level of internal consistency (Cronbach's alpha = .91). Furthermore, previous research had established good construct validity for the examination (Wistner et al., 2009 as cited in Al-Saadi, 2020).

3.3.2. Pre-test and Post-test

To assess the participants' writing performance, all groups were given a writing task centered on the topic of "characteristics of a successful language learner." This topic selection aligned with the study's focus on examining the participants' writing performance. Prior to the treatment sessions, as well as after the intervention, participants were requested to write an essay on this given topic.

To ensure the evaluation of the participants' writing was done reliably, two expert teachers were responsible for rating the essays. The rating process employed a scale specifically developed for assessing writing performance in IELTS Writing Task 2 by the University of Cambridge. This scale has been widely used and validated for evaluating writing proficiency in academic contexts. Furthermore, it was essential to establish the inter-rater reliability of the two raters.

3.3.3. Self-Efficacy Questionnaire

To assess the participants' self-efficacy, a self-efficacy questionnaire was utilized (Appendix A). This questionnaire incorporated the General Self-Efficacy Scale developed by Jerusalem and Schwarzer (1992). This scale served as a psychometric tool designed to measure individuals' optimism and their perceived ability to handle various challenging situations in life. It consisted of 10 Likert-scale items. Participants read each statement and indicated their level of agreement or disagreement, choosing from options such as "strongly disagree," "moderately disagree," "moderately agree," or "strongly agree." This response format allowed for a nuanced assessment of participants' self-efficacy beliefs.

The reliability analysis of the questionnaire, indicated by Cronbach's alpha, was 0.69 (Jerusalem & Schwarzer, 1992). This value reflected the internal consistency of the scale, indicating the extent to which the items in the questionnaire reliably measured the same construct.

3.4. Procedure

The study started by selecting participants from a pool of 120 intermediate English language learners. To ensure homogeneity among the participants, they took the Oxford Placement Test (OPT). The participants had a designated time of 60 minutes to complete the test, which consisted of 60 multiple-choice questions covering various aspects of the English language.

After scoring the test using the answer key, 60 students whose scores fell within one standard deviation above or below the mean were selected as participants in the study. This criterion ensured a representative sample of intermediate English language learners. The selected participants were then randomly assigned to one of three groups: two experimental groups and a control group. The inclusion of a control group allowed for the comparison of the experimental treatments' effects (Mackey & Gass, 2015). Subsequently, all participants took the self-efficacy questionnaire. This questionnaire aimed to assess the participants' optimism and their perceived ability to handle demanding situations.

As a pre-test, the participants were also given 20 minutes to prepare an essay on the topic of "characteristics of a good language student." The written assignments were evaluated using the writing scoring rubric developed by the University of Cambridge for IELTS Writing Task 2. Two teachers, with over ten years of teaching experience, assessed the essays based on the criteria outlined in the rubric.

In the first experimental group, in-text feedback group, the participants were asked to complete the designated writing assignments and the teacher applied text-processing program (Microsoft Word) to provide in-text feedback on digital text. This program technically offers two different options for in-text feedback, namely, comments (annotations) and track changes. In this study, text-progressing program were used and they provided the possibility to add comments next to the text. These comments were used to place a correction next to the text.

In the second experimental group, known as the rubric-based group, the participants were asked to complete the designated writing assignments similar to the first group. To control for the potential intervening effect of the error correction tool in Microsoft Word, participants in this group were required to write their essays in Microsoft Word and submit them electronically to their teacher. The teacher then

provided feedback on two specific aspects of each essay—coherence and cohesion, as well as task achievement—using the corresponding rubrics. The participants were given time to review the provided feedback before working on their next assignment.

In the control group, the participants also completed writing assignments similar to those in the first and second groups (See Appendix B). However, in this group, the teacher collected hard copies of their written work, and gave them some general feedback.

After ten sessions of the treatments, all the participants took a post-test, which mirrored the pre-test. Additionally, they completed the self-efficacy questionnaire once again to gauge any potential changes in their self-efficacy beliefs. The post-test essays were rated by the same two expert teachers who evaluated the pre-test assignments.

3.5. Data Analysis

To address the research questions and examine the potential changes in participants' writing performance and self-efficacy between the pre-and post-test, the researchers employed an independent-samples t-test. This statistical test assessed whether there was a statistically significant difference in the means of the two groups, allowing for a comparison of the participants' performance and self-efficacy scores before and after the treatment.

To ensure that the data met the assumption of normality, the researchers conducted a one-sample Kolmogorov-Smirnov test. This test examined whether the distribution of the data significantly deviated from a normal distribution.

Additionally, to address the third and sixth research questions, the researchers conducted a one-way ANOVA (analysis of variance) and Turkey's post hoc test. The one-way ANOVA examined the differences between multiple groups, specifically comparing the effects of different feedback modalities on participants' writing performance. The post hoc test further analyzed pairwise comparisons between the groups to identify specific differences. These analyses provided insights into the variations in writing performance among the different treatment groups.

4. Results

4.1. The Results of OPT

In order to select 60 homogenized participants, 120 learners who were at the intermediate level of English language proficiency took part in an Oxford Placement Test (OPT). Table 1 shows the mean and standard deviation of this test.

Table 1.

The Results of OPT

	N	Minimum	Maximum	Mean	Std. Deviation
OPT	120	30.00	42.00	35.8750	3.79421
Valid N (listwise)	120				

According to the results of the OPT (*M*=35.87 and *Std.*=3.79), 60 English language learners whose scores ranged between one standard deviation above and below the mean were selected and assigned into three groups, i.e., the in-text group, the rubric-based group, and the control group.

4.2 The Result of Inter-Rater Reliability

Table 4 shows the inter-rater reliability of the pre-test writing, which was rated by two expert raters. It is essential to mention that all 60 participants participated in the writing task in both pre-and post-tests. A Pearson product-moment correlation was run to determine if there was an agreement between the two raters. There was a strong, positive correlation between two raters, which was statistically significant (r = .773, n = 60, p = .001).

Table 2.

Inter-Rater Reliability of Pre-test

		Pre-test (Rater 1)	Pre-test (Rater 2)
Pre-test (Rater 1)	Pearson Correlation	1	.773[**]
	Sig. (2-tailed)		.000
	N	60	60
Pre-test (Rater 2)	Pearson Correlation	.773[**]	1
	Sig. (2-tailed)	.000	
	N	60	60

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

Similar to the inter-rater reliability of the raters in the pre-test, the inter-rater reliability of the raters in the post-test was also computed. Table 3 shows that there was a strong, positive correlation between the two raters, which was statistically significant (r = .742, n = 60, p = .001).

Table 3.

Inter-Rater Reliability of Post-test

		Post-test (Rater 1)	Post-test (Rater 2)
Post-test (Rater 1)	Pearson Correlation	1	.742**
	Sig. (2-tailed)		.000
	N	60	60
Post-test (Rater 2)	Pearson Correlation	.742**	1
	Sig. (2-tailed)	.000	
	N	60	60

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

4.3. Normality Test

In order to check the normality of the data, a one-sample Kolmogorov-Smirnov test was employed. Table 4 shows that the pre-test and post-test results had a normal distribution (*p*>.05); therefore, parametric tests such could be used.

Table 4.

Tests of Normality

	Groups	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pre-test_Self_Efficacy	Rubric-Based Group	.125	20	.200*	.934	20	.186
	In-Text Group	.125	20	.200*	.934	20	.186
	Control Group	.125	20	.200*	.934	20	.186
Post-test_Self_Efficacy	Rubric-Based Group	.125	20	.200*	.934	20	.186
	In-Text Group	.125	20	.200*	.934	20	.186
	Control Group	.125	20	.200*	.934	20	.186
Pre-test_Writing	Rubric-Based Group	.085	20	.200*	.966	20	.659
	In-Text Group	.085	20	.200*	.966	20	.659
	Control Group	.085	20	.200*	.966	20	.659
Post-test_Writing	Rubric-Based Group	.198	20	.039	.895	20	.034
	In-Text Group	.315	20	.000	.802	20	.001
	Control Group	.213	20	.018	.913	20	.072

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

4.4. Reliability of Self-Efficacy Questionnaire

The reliability of the self-efficacy questionnaire applied to this study was calculated using the Cronbach alpha method. Table 5 shows the reliability coefficient of the questionnaire, which was .76, showing a reasonably acceptable index of reliability coefficient.

Table 5.

Reliability of Self-Efficacy Questionnaire

Cronbach's Alpha	N of Items
.762	10

4.5. Addressing the First Research Question

In order to address the first research question of the current study, the researchers employed independent-samples t-test. Table 6 shows the mean scores of the control group (*M*=4.89) and the in-text group (*M*=4.72) in the pre-test.

Table 6.

The Comparison of Groups' Pre-tests

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pre-test of Writing	In-Text Group	20	4.9650	.45338	.10138
	Control Group	20	4.8900	.54955	.12288

Table 7 depicts that there was not a statistically significant difference between the pre-test of the control group and the in-text feedback group (*P*=.389, *P*>.05).

Table 7.

Independent Samples Test of Pre-tests

Levene's Test for Equality of Variances

					t-test for Equality of Means				
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.760	.389	.471	38	.640	.07500	.15930	-.24749	.39749
Equal variances not assumed			.471	36.676	.641	.07500	.15930	-.24788	.39788

Table 8 shows the mean scores of the control group (*M*=4.92) and the in-text

feedback group (*M*=7.15) in the post-test.

Table 8.

The Comparison of Groups' Post-test

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Post-test of Writing	In-Text Group	20	7.1500	.23508	.05257
	Control Group	20	4.9200	.71936	.16085

Table 9 reveals that there was a statistically significant difference between the post-test of the control group and the in-text feedback groups (*p*=.001, *P*<.05).

Table 9.

Independent Samples Test of Post-test

Levene's Test for Equality of Variances

			t-test for Equality of Means							
						Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
	F	Sig.	t	df					Lower	Upper
Equal variances assumed	34.839	.000	13.178	38	.000	2.23000	.16922	1.88742	2.57258
Equal variances not assumed			13.178	23.012	.000	2.23000	.16922	1.87994	2.58006

Therefore, it was confirmed that the in-text feedback had a statistically significant effect on the writing performance of Iranian intermediate EFL learners.

4.6. Addressing the Second Research Question

In order to address the second research question, the researchers, an independent-samples t-test was employed. Table 10 depicts the mean scores of the control group (*M*=4.89) and the rubric-based feedback group (*M*=5.015) in the pre-test.

Table 10.

*The Comparison of Groups' Pre-test*s

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pre-test of Writing	Rubric-Based Group	20	5.0150	.44162	.09875
	Control Group	20	4.8900	.54955	.12288

Table 11 shows that there was not a statistically significant difference between the pre-test of control and rubric-based feedback group (*P*=.199, *P*>.05).

Table 11.

Independent Samples Test of Pre-tests

Levene's Test for Equality of Variances

				t-test for Equality of Means				95% Confidence Interval of the Difference	
	F	Sig. t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Equal variances assumed	1.709	.199 .793	38	.433	.12500	.15764		-.19413	.44413
Equal variances not assumed		.793	36.318	.433	.12500	.15764		-.19462	.44462

Table 12 also reveals the mean scores of the control group (*M*=4.92) and the rubric-based group (*M*=7.15) in the post-test.

Table 12.

The Comparison of Groups' Post-test

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Post-test of Writing	Rubric-Based Group	20	6.1500	.67473	.15087
	Control Group	20	4.9200	.71936	.16085

Table 13 shows that there was not a statistically significant difference between the post-test of the control group and the rubric-based feedback groups (*p*=.715, *P*<.05).

Table 13.

Independent Samples Test of Post-test

Levene's Test for Equality of Variances

					t-test for Equality of Means				95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Equal variances assumed	.135	.715	5.577	38	.000	1.23000	.22054		.78354	1.67646
Equal variances not assumed			5.577	37.845	.000	1.23000	.22054		.78348	1.67652

As the statistics show, although there was a difference between the mean

scores of the rubric-based group and the control group, the difference was not significant. Therefore, it is confirmed that rubric-based feedback did not have a statistically significant effect on the writing performance of Iranian intermediate EFL learners.

4.7. Addressing the Third Research Question

In order to address the third research question, a one-way ANOVA, and Tukey Post Hoc was deployed. As Table 14 shows, there was a statistically significant difference between the post-test of three groups (P=.001, P<.005).

Table 14.

ANOVA: Post-test of Writing

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	49.905	2	24.953	72.819	.000
Within Groups	19.532	57	.343		
Total	69.437	59			

Table 15 shows the results of the comparison between the three groups' post-tests. It also shows that the mean scores of the three post-tests were statistically significantly different.

Table 15.

Multiple Comparisons of Post-test

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Rubric-Based Group	In-Text Group	-1.00000*	.18511	.000	-1.4455	-.5545
	Control Group	1.23000*	.18511	.000	.7845	1.6755
In-Text Group	Rubric-Based Group	1.00000*	.18511	.000	.5545	1.4455
	Control Group	2.23000*	.18511	.000	1.7845	2.6755
Control Group	Rubric-Based Group	-1.23000*	.18511	.000	-1.6755	-.7845
	In-Text Group	-2.23000*	.18511	.000	-2.6755	-1.7845

*. The mean difference is significant at the 0.05 level.

Table 16 depicts that there was a statistically significant difference between groups in post-tests. A Tukey post hoc test revealed that the in-text feedback group (M=7.15) was statistically significantly higher than the control group (M=4.92) and the rubric-based feedback group (M=6.15).

Table 16.

Turkey Post Hoc Results of Post-tests

		Subset for alpha = 0.05		
Groups	N	1	2	3
Control Group	20	4.9200		
Rubric-Based Group	20		6.1500	
In-Text Group	20			7.1500
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

Therefore, it was confirmed that there was a statistically significant difference between the effects of in-text feedback vs. rubric-based feedback on the writing performance of Iranian intermediate EFL learners.

4.8. Addressing the Fourth Research Question

The researchers used the independent-samples t-test to deal with the fourth research question of the current investigation. Table 17 displays the mean scores of the in-text feedback group (M=23.85) and the control group (M=24.30) in the pre-test of self-efficacy.

Table 17.

The Comparison of Self-Efficacy of In-Text and Control Groups in Pre-tests

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pre-test of Self-Efficacy	In-Text Group	20	23.8500	1.98083	.44293
	Control Group	20	24.3000	1.45458	.32525

Table 18 shows that there was not a statistically significant difference between the pre-test of the control and in-text feedback group (P=.141, P>.05).

Table 18.

Independent Samples Test of Pre-tests

								95% Confidence Interval of the Difference	
Levene's Test for Equality of Variances			t-test for Equality of Means						
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	2.262	.141	-.819	38	.418	-.45000	.54952	-1.56245	.66245
Equal variances not assumed			-.819	34.875	.418	-.45000	.54952	-1.56573	.66573

Table 19 also shows the mean scores of the control group (*M*=24.25) and the in-text feedback group (*M*=27.20) in the post-test of self-efficacy questionnaire results.

Table 19.

The Comparison of Self-Efficacy of In-Text and Control Groups in Post-test

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Post-test of Self-Efficacy	In-Text Group	20	27.2000	1.00525	.22478
	Control Group	20	24.2500	2.14905	.48054

Table 20 demonstrates that there was a statistically significant difference between the control group and the in-text feedback groups (*p*=.001, *P*<.05) in the post-test of self-efficacy questionnaire results.

Table 20.

Independent Samples Test of Post-test

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	24.002	.000	5.561	38	.000	2.95000	.53052	1.87603	4.02397
Equal variances not assumed			5.561	26.935	.000	2.95000	.53052	1.86135	4.03865

Therefore, it was confirmed that in-text feedback had a statistically significant effect on the self-efficacy of Iranian intermediate EFL learners.

4.9. Addressing the Fifth Research Question

The researcher used the independent-samples t-test to address the fifth research question of the current investigation. Table 4.21 shows the mean scores of the rubric-based group (M=23.85) and the control group (M=24.30) in the pre-test of self-efficacy.

Table 21.

The Comparison of Self-Efficacy of Rubric-based and Control Groups in Pre-tests

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pre-test of Efficacy	Self-Rubric-Based Group	20	24.0000	1.777047	.39736
	Control Group	20	24.3000	1.45458	.32525

Table 22 shows that there was not a statistically significant difference between the pre-test of the control and rubric-based group (*P*=.340, *P*>.05).

Table 22.

Independent Samples Test of Pre-test

Levene's Test for Equality of Variances									
			t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.933	.340	.584	38	.563	3.0000	.51350	1.3395	.7395
Equal variances not assumed			.584	36.57	.563	3.0000	.51350	1.3408	.7408

Table 23 also shows the mean scores of the control group (*M*=24.25) and the rubric-based group (*M*=27.85) in the post-test of self-efficacy.

Table 23.

The Comparison of Self-Efficacy of Rubric-based and Control Groups in Post-tests

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Post-test of Efficacy	Self-Rubric-Based Group	20	27.8500	1.98083	.44293
	Control Group	20	24.2500	2.14905	.48054

Table 24 reveals that there was not a statistically significant difference between the control group and the rubric-based feedback groups (*p*=.785, *P*<.05) in the post-test of self-efficacy questionnaire results.

Table 24.

Independent Samples Test of Post-test

Levene's Test for Equality of Variances

					t-test for Equality of Means				
					Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
	F	Sig.	t	df				Lower	Upper
Equal variances assumed	.785	.381	5.509	38	.000	3.60000	.65353	2.27699	4.92301
Equal variances not assumed			5.509	37.75	0.000	3.60000	.65353	2.27670	4.92330

Therefore, it was confirmed that rubric-based feedback did not have a statistically significant effect on the self-efficacy of Iranian intermediate EFL learners.

4.10. Addressing the Sixth Research Question

To address the sixth research question, a one-way analysis of variance (ANOVA) was applied and subsequently, a Tukey post hoc analysis was conducted. The obtained results, as presented in Table 25, indicates the presence of a statistically significant difference among the post-test scores of the three groups (P = .001, P < .005).

Table 25.

ANOVA: Post-test of Self-efficacy

		Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)	147.233	2	73.617	23.119	.000
	Linear Term Contrast	129.600	1	129.600	40.701	.000
	Deviation	17.633	1	17.633	5.538	.022
Within Groups		181.500	57	3.184		
Total		328.733	59			

Furthermore, Table 26 illustrates the comparative outcomes of the post-tests for the three groups, clearly demonstrating that the mean scores of the in-text feedback group and the rubric-based feedback group were statistically significant compared to the control group.

Table 26.

Multiple Comparisons Post-test

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Rubric-Based Group	In-Text Group	.65000	.56429	.487	-.7079	2.0079
	Control Group	3.60000*	.56429	.000	2.2421	4.9579
In-Text Group	Rubric-Based Group	-.65000	.56429	.487	-2.0079	.7079
	Control Group	2.95000*	.56429	.000	1.5921	4.3079
Control Group	Rubric-Based Group	-3.60000*	.56429	.000	-4.9579	-2.2421
	In-Text Group	-2.95000*	.56429	.000	-4.3079	-1.5921

*. The mean difference is significant at the 0.05 level.

Additionally, Table 27 provides evidence of a statistically significant disparity between the groups concerning their post-test results. A subsequent Tukey post hoc test was conducted, indicating that the in-text feedback group (M = 27.20) exhibited substantially the same mean scores in comparison to the rubric-based feedback group (M = 27.85).

Table 27.

Tukey HSD of Post-test

Groups	N	Subset for alpha = 0.05	
		1	2
Control Group	20	24.2500	
In-Text Group	20		27.2000
Rubric-Based Group	20		27.8500
Sig.		1.000	.487

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

Consequently, it was confirmed that there was no statistically significant difference between the effect of in-text feedback and rubric-based feedback on the self-efficacy of Iranian intermediate EFL learners.

5. Discussion

The current investigation provided compelling evidence regarding the impact of two distinct forms of feedback, namely in-text feedback and rubric-based feedback, on the writing performance of Iranian intermediate English as a Foreign Language (EFL) learners. The findings of this study revealed that both types of feedback yielded statistically significant effects on the participants' writing proficiency. However, it was observed that the effect of in-text feedback was more pronounced and yielded more favorable outcomes compared to the effect of rubric-based feedback.

These results highlight the significance of employing targeted and personalized feedback approaches in enhancing the writing skills of EFL learners. The utilization of in-text feedback, characterized by its contextual and specific nature, proved to be particularly effective in this study. Through the provision of detailed comments and suggestions directly within the text, this feedback approach demonstrated its potential to facilitate learners' comprehension of their strengths and weaknesses in writing, ultimately leading to improved performance.

On the other hand, rubric-based feedback, which involves the use of predetermined criteria for evaluation, also exhibited a statistically significant impact on the participants' writing performance. However, the magnitude of this effect was comparatively lower than that of in-text feedback. This finding suggests that while rubric-based feedback can provide learners with a structured framework for assessing their writing, it may lack the individualized and tailored nature that in-text feedback offers.

Also, the findings of this study indicated that both in-text feedback, and rubric-based feedback had a statistically significant effect on the self-efficacy of the participants. The intervention groups, consisting of participants who received either in-text feedback or rubric-based feedback, exhibited higher levels of self-efficacy compared to the control group. This finding suggests that the provision of feedback, regardless of the specific modality, contributed to the enhancement of self-efficacy beliefs among Iranian intermediate EFL learners.

Furthermore, it was revealed that there was no statistically significant difference between the effects of in-text feedback and rubric-based feedback on the self-efficacy of the participants. This implies that both feedback approaches yielded similar

outcomes in terms of promoting self-efficacy beliefs among the learners. Consequently, the choice between these two feedback modalities may depend on other factors such as instructional preferences, learner characteristics, or contextual considerations.

The results of this study align with the research conducted by Lv et al. (2022), emphasizing a shared focus on the influence of feedback on ESL/EFL writing. Moreover, the findings of the current study not only are reinforced but further enriched by the groundbreaking research conducted by Hasan (2022) in both robust understanding of the potential benefits and implications of employing rubric-based feedback techniques for high school students' writing are emphasized.

Furthermore, the present study's findings on self-efficacy are corroborated by Ruegg's (2018) research who claimed that learners who receive teacher feedback demonstrate a significantly greater increase in writing self-efficacy compared to the group engage in peer feedback. In addition, the present study's findings regarding self-efficacy align with the research conducted by Bürgermeister et al. (2021), which further supports the importance of structured peer feedback in enhancing self-efficacy. The results of Bürgermeister et al.'s study demonstrated a positive association between structured peer feedback and self-efficacy. Participants who received well-structured feedback from their peers reported increased confidence in their abilities to perform tasks successfully.

6. Conclusion

The implications of this study highlight the potential benefits and practical applications of in-text feedback and rubric-based feedback in improving writing performance and self-efficacy among Iranian intermediate EFL learners. Learners can benefit from the personalized and precise guidance offered by in-text feedback, which allows them to identify specific areas for improvement and take targeted steps to enhance their writing skills. Also, teachers, as key facilitators of learning, can utilize the findings of this study to inform their instructional practices. Incorporating in-text feedback and rubric-based feedback into their teaching approach can help teachers provide effective support to learners. In addition, teacher trainers can utilize the study's findings to enhance their training programs for EFL educators. By highlighting the effectiveness of in-text feedback and rubric-based feedback, trainer trainers can

emphasize the importance of incorporating these approaches into instructional practices. They can provide guidance on how to deliver feedback effectively, including strategies for providing specific and relevant comments and implementing rubrics for evaluation. Teacher trainers can also promote the development of teachers' feedback skills through workshops, courses, and ongoing professional development opportunities.

In conclusion, the present study highlighted the significant effects of in-text feedback and rubric-based feedback on the writing performance and self-efficacy of Iranian intermediate EFL learners. However, further research is warranted to deepen our understanding in this area. By conducting longitudinal studies, investigating individual differences, comparing feedback types, exploring transferability, considering cultural factors, exploring feedback preferences, and investigating teacher training, researchers can advance the understanding of feedback's impact on language learning. These research endeavors will inform instructional practices and contribute to the broader field of second language acquisition.

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The impact of in-text feedback…..

Appendix

Self-Efficacy Questionnaire (Jerusalem & Schwarzer, 1992)

	Not at all true	Hardly true	Moderately true	Exactly true
1.I can always manage to solve difficult problems if I try hard enough				
2. If someone opposes me, I can find the means and ways to get what I want.				
3. It is easy for me to stick to my aims and accomplish my goals.				
4. I am confident that I could deal efficiently with unexpected events.				
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.				
6. I can solve most problems if I invest the necessary effort.				
7. I can remain calm when facing difficulties because I can rely on my coping abilities.				
8. When I am confronted with a problem, I can usually find several solutions.				
9. If I am in trouble, I can usually think of a solution				
10. I can usually handle whatever comes my way.				

Appendix B. Topics for Writing Assignments

1. The importance of education on happiness

2. The disadvantages of smoking

3. The impact of walking on weight loss

4. Describing an excellent teacher

5. The advantages and disadvantages of marriage

6. The benefits of urban living

7. The effect of pollution on people's health

8. The effect of education on people's attitudes

9. The danger of crime for society

10. The dangers of child punishment

The effect of cognitive-based learning on Iranian EFL learners' reading comprehension components

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Abstract

This study aimed at examining the effect of cognitive-based learning on Iranian EFL learners' reading comprehension components; identifying the main idea, making Inferences, recognizing unfamiliar vocabulary, text organization, and information recall. In doing so, the researchers selected 84 homogeneous intermediate level male and female EFL learners with the age range 18 to 25 out of 110 conveniently nominated sample of students majoring in different fields in a Vocational and Technical college in Dezful. A standard version of Quick Oxford Placement Test (QPT) was used to homogenize the participants and the selected ones whose scores were within one SD above and below the mean, were considered as the experimental (i.e., cognitive-based learning, n=41) and control (n=43) groups in line with the nature of convenience non-random sampling. Then, the learners in both groups experienced the processes of pretesting, 12 sessions of intervention which were presented through synchronous online Interactions using Adobe Connect, and post-testing. A validated researcher-made L2 reading comprehension test tapping different reading components was used to collect the data. The results of Analysis of Covariates (ANCOVA) and Multivariate Analysis of Covariates (MANCOVA) proved the effectiveness of cognitive based learning, using Bloom's Taxonomy levels in developing L2 reading and its components among the participants. The findings can be used to enrich cognitive learning and analytical views in the L2 reading classroom, helping both teachers and learners in this regard.

Keywords: Bloom's Taxonomy, Cognitive-based Learning, EFL Learners, Reading Comprehension Components, Synchronous Online Interactions

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1. Introduction

Although learning to read is a skill taught in formal educational settings, a lot of it happens on the learner's own trails and due to their efforts in the informal settings and outside the classroom context (Tong et al., 2024). In an English as a Foreign Language (EFL) setting, reading comprehension (RC) is the most important method of information access (Crystal, 1999). The mastery of reading skill in English, besides other skills, is a priority for many language learners in the EFL context (Amiri & Maftoon, 2010; Ferris & Hedgcock, 2023). Besides, L2 reading proficiency is supposedly the most important aspect of teaching and learning a language, and it has lately become more so in EFL classrooms (Bozan, 2024; Nor & Sihes, 2021). Additionally, RC poses a significant challenge for Iranian EFL learners at the university level (Ahmadian et al., 2024; Akbari et al., 2021; Azmoode et al., 2024; Namaziandost et al., 2022). Moreover, Iranian institutions place a strong emphasis on RC as a primary language competency (Marzban, 2011; Soltani & Taghizadeh, 2023). Even though reading is a major focus of the English language curriculum in Iran's educational system, students face significant hurdles when it comes to comprehension techniques such as identifying the text's key concepts, main idea, and dealing with new terminology (Azmoode et al., 2024; Soltani & Taghizadeh, 2023).

Considering reading as one of the vital and pervasively used language skills in EFL contexts, Crystal (1999) claimed that in EFL environments, RC emerges as a fundamental method for accessing information. According to Habók and Magyar (2019), RC strategies enjoy a developmental feature in L2 classroom. Moreover, RC is a prominent topic within the field of education and fostering learners' development (Chen & Abdullah, 2024; Yusuf et al., 2024). Likewise, Piñero and Cañedo (2024) argued that "reading comprehension abilities are essential for educational growth" (p. 974). In addition, the main aim of reading is collecting information from the reading material. Achieving this, the reader's interaction with the passage is needed in order to get meaning from the passage correctly (Tong et al., 2024).

Reading comprehension is considered necessary for the life success of the EFL learners with regard to the challenges of the world today, demanding a thorough

comprehension of passages in the scientific books or newspapers and the social media (Piñero & Cañedo, 2024). As one of the reading components understanding the text purpose requires extensive cognitive processes encompassing both lower-order thinking and higher-order thinking levels. Such skills represent critical thinking (CT) skills (Bloom, 1956; Huyen & Ngoc 2024; Todorova, 2024). Additionally, CT is vital for answering RC questions, especially those related to the main ideas and inferencing from the text (Huyen & Ngoc, 2024). In addition, comprehension emerges as a result of cognitive processes and skills and it is a process of thought, inference, evaluation, and problem solving and a necessary ability needed for real life success with the emphasis on the three skills of evaluation, inference, and analysis (Facione, 2023). Furthermore, the reading skill allows learners to develop their CT skills which demands an effective method since it is a cognitive process vital for language learning and acquisition, necessarily in the area of EFL (Okasha, 2020; Huyen & Ngoc, 2024).

Second language RC has been considered as a significant skill in different foreign language teaching methods and approaches. However, the cognitive approach, which can be manifested in employing Bloom's taxonomy of learning (Bloom, 1956) and its revised version (Anderson, & Krathwohl, 2001) has been taken into account in teaching reading to the EFL learner just in a few cases (Horváthová & Naďová, 2021), though it has recorded a lot in the testing domain of this skill (Febrina et al., 2019; Pakpahan et al., 2021; Stevani & Tarigan, 2023; Ulum, 2022; Valentiyo, 2024).

The present study took support from Cognitive Learning Theory (CLT) (Piaget, 1983) and its more specific extension labeled Social Cognitive Theory (SCT) (Bandura, 2001). The CLT invites students to reflect on their own thought processes and the ways in which both internal and external factors impact their thinking (Fitriani et al., 2021). These factors can encompass an individual's level of focus, the degree of distraction they have experienced, and the community's value of the knowledge they are acquiring. Metacognition, or thinking about thinking, is at the heart of the most basic kind of cognitive learning. Maruf et al. (2024) mentioned that reading materials are excellent sources of input for language learners and the goal of most reading programs is to turn "learning to read" into "reading to learn." Cognitive-based learning, as a method for teaching reading, is used to teach them to read materials and use their thoughts and thinking skills to learn

and comprehend, and employ their learning in their real life.

It is assumed that the six thinking levels of Bloom's taxonomy including *remembering, understanding, applying, analyzing, evaluating,* and *creating*, as cognitive thinking levels, can play a vital role in the development of L2 reading comprehension among EFL learners (Fitri et al., 2024). Therefore, regarding the importance of developing second language reading, especially in the EFL context, the main goal of the current research was to investigate the effect of cognitive-based learning; the Bloom's Taxonomy levels, on RC components of Iranian EFL learners.

2. Review of the Related Literature

2.1 Reading Comprehension Components

A reader's interest in the text, their familiarity with the various text types, and the reader's prior knowledge and strategy use are all factors that interact with one another to form reading comprehension (Brandon, 2021). In addition, EFL learners require specific techniques to help them understand, apply, and retain the information they read (Piñero & Cañedo, 2024). Skilled readers have their own reading methods and are able to adapt those tactics to various text types. Students who have difficulty reading might benefit from instruction in RC methods and the appropriate applications of these strategies to various text types (Allen et al., 2014). Recognizing a student's individual reading issue(s) can lead to the development of an effective program to improve their reading skills (Davidson, 2021).

As a goal component of RC, understanding what one reads should be one's primary objective (Vaughn et al., 2024). Comprehension is the ability to understand written language and it should be highlighted that identifying words is not the same as comprehension. Hence, identifying the text's core concept is the ultimate aim of reading, and just word recognition and semantic meaning fall short of this goal (Brandon, 2021; Meneghetti et al., 2006). Readers employ a multi-step mental process known as comprehension to make sense of what they have read. An individual's ability to understand written language and decode it is what ultimately determines her RC (Ulin,

2020). The solution to achieving genuine reading comprehension is to prioritize teaching both basic reading skills and RC techniques explicitly (Elleman & Oslund, 2019; Piñero & Cañedo, 2024). Thus, it is important for the teacher to ensure that reading training consistently targets phonological awareness, phonics, vocabulary, and reading fluency. Moreover, students need to become proficient in different aspects of RC such as identifying the main idea (paying attention to overall meaning and the text details), drawing conclusions from the text (answering inferential questions), guessing the meaning of unfamiliar words (inferencing from the text analysis), comprehending how the text is structured (recognizing text-organization), and remembering what is read (answering recall questions) (Piñero & Cañedo, 2024).

2.2 Cognitive-based Learning

Cognitive learning, as proposed by Yilmaz (2011), is "an approach to education that emphasizes the importance of students actively engaging with the material and ma king better use of their brainpower" (p. 204). It is not about rote memorization but rather mastering the process of learning. Cognitive learning makes use of mental operations such as paying attention, observing, and retrieving information from long-term memory. Giving learners a better understanding of a topic and how it applies to their job might help them learn it more explicitly (Fitriani et al., 2021). Likewise, Maruf et al. (2024) advocated cognitive learning as an educational strategy that places an emphasis on students' active engagement with the content and improved use of their brainpower. Cognitive learning utilizes mental functions such as attention, observation, and the application of long-term memory (Anderson & Krathwohl, 2001).

The idea of having a well-organized mental picture of the text is crucial to effective understanding and is at the heart of cognitive theories of RC (Duke et al., 2021). The textual information is integral to this cohesive representation, which is both accessible and applicable in many contexts (Abenojar, 2024; Oakhill et al., 2014) and takes into account the reader's prior knowledge (Abenojar, 2024). While reading, a reader makes connections between key elements of the text using a mix of instinctive and purposeful processes. These relationships enhance structure and coherence (Tracey & Morrow, 2024). There is a considerable correlation between cognitive learning, creative thinking,

RC, and CT skills (Almulla & Al-Rahmi, 2023; Siburian et al., 2019). Every academic program should make developing students' CT skills in L2 reading a priority, as it is the most transferable talent a school can offer (Richards et al., 2020). Bloom's Taxonomy (Bloom, 1956) and the Revised Bloom's Taxonomy (Anderson & Krathwohl, 2001) serve as the foundation for cognitive-based learning (CBL). From the most basic to the most complex levels of thought, Bloom's stages are believed to be essential for reading and comprehending a text (Bakhtiari Moghadam et al., 2023; Ennis, 2018; Huang, 2024).

2.3 Bloom's Taxonomy and L2 RC

For the learner to be satisfied, RC requires both cognitive and metacognitive strategies. According to several studies (Aránguiz Améstica, 2021; Bakhtiari Moghadam et al., 2023; Bilki & Irgin, 2022; Chen & Abdullah, 2024; Fitri et al., 2024), effective reading requires the integration of different levels of cognition.

Bloom saw his six stages of cognitive learning as more than just a tool for evaluating the outcomes of comprehension (Bozan, 2024; Krathwohl, 2002). According to Scully (2017), Bloom blurred the boundaries between lower- and higher-order thinking. This prompted a revision to the taxonomy (Anderson & Krathwohl, 2001) that maintained the original six levels for evaluating cognition but divided them into two groups according to the types of thinking abilities they tested. The Lower-Order Thinking Skills (LOTS) consist of the first three levels: remembering-keeping in mind specific details and fundamental ideas; understanding-putting that knowledge into words; and applying-solving issues by using what you have learned in novel contexts. The next three stages, including analyzing, evaluating, and creating are known as Higher-Order Thinking Skills (HOTS). EFL learners need to go all the way to the top of the pyramid to get real mastery and understanding of the text. The ability to draw valid conclusions depends on carrying out exhaustive evaluations (Shabatura, 2018). Different studies have reported that the hierarchical sequence of cognitive proficiencies in Bloom's taxonomy makes it a useful tool for learners to develop their cognitive abilities as well as their RC skills (Fastiggi, 2014; Horváthová & Naďová, 2021; Persaud, 2018). Albeckay (2014) explored how a critical reading program affected the growth of critical RC in undergraduate EFL students from Libya. Other studies conclude that teaching students to think critically in language

classes is an excellent way to boost their RC abilities, regardless of their age (Ramezani et al., 2016; Yousefi & Mohammadi, 2015; Ulum, 2022).

In conclusion, educators can use Bloom's taxonomy as a framework to design well-defined English classes that evaluate students' comprehension at all language thinking levels, from primary to secondary. Additionally, it enables educators to see a cohesive connection between textbook information and the cognitive process of learning outcomes (Boeren & Iniguez-Berrozpe, 2022). By giving English instructors, a framework to create different learning activities and tactics for employing texts in the L2 classroom, the Bloom's taxonomy might assist students to read critically (Djallel, 2022). The current study set out to examine how Iranian EFL learners' RC abilities were affected by cognitive domain of Bloom's Taxonomy. With respect to the purpose of the study, the researchers raised the following questions:

1. Does cognitive-based learning, using Bloom's Taxonomy, improve EFL learners' overall RC ability?

2. Does cognitive-based learning, using Bloom's Taxonomy, improve EFL learners' RC components (i.e., main idea, inferencing, unfamiliar vocabulary knowledge, text organization, and information recall)?

3. Methodology

3.1 Participants

The participants of the study were 84 intermediate level male (n=36) and female (n=48) B.A. students within the age range of 18-25 majoring in different fields taking a three-credit general English course at a Vocational and Technical College of Dezful city. The participants were chosen based on their performance in a standard version of Quick Oxford Placement Test (QPT) administered to 110 EFL learners who had been initially chosen by convenience sampling. The students whose scores were within one standard deviation above and below the mean served as the study's main participants. The students who did not meet the criteria were nonetheless permitted to participate in the study due to the rules and regulations of the university in which the study was carried out,

but their scores were excluded from the data analysis. The selected participants in two different classes were considered as the experimental group (n=41) receiving cognitive-based learning and the control group (n=43) receiving the conventional Grammar Translation Method (GTM) which is the most frequently used method in EFL courses in Iranian universities (Rassouli & Osam, 2019). Then, the participants went through the process of pretesting, intervention, and post-testing for the effect of cognitive-based learning on their reading comprehension skills.

3.2 Instruments

The QPT was used to homogenize the participants prior to the intervention phase. According to Cronbach's alpha, the test is highly reliable (α=.91) (Berthold, 2011, p. 674). Wistner et al. (2009) and Motallebzadeh and Nematizadeh (2011) report that the test has high construct validity based on factor analysis of the data and the credence it receives due to its widespread international use. It should be noted that in the present study, the QPT enjoyed a KR-21 reliability index of .86 which is considered as "appropriate" as noted by Fulcher and Davidson (2007, p. 107).

A 30-item multiple-choice reading test was developed based on eight lessons of the students' course book; e.g., "Read This! Intro Student's Book: Fascinating Stories from the Content Areas" (Mackey et al., 2012), in line with the five significant components of reading comprehension; i.e., finding the main idea (4 items), inferencing (4 items), guessing the unfamiliar vocabulary (10 items), realizing text organization (3 items), and recalling information (9 items) (Piñero & Cañedo, 2024). The six passages appearing in the test were randomly selected out of the texts appearing in the students' course book. To score the test sheets, one correct answer was considered for each item; a zero point was given to choices that were wrong. As a result, the highest score of each participant was 30. The test was put to the scrutiny of three TEFL PhD holders teaching in Islamic Azad University to ensure the test's content validity. Then, the test was piloted in online mode among 30 EFL learners with similar characteristics to those of the study's main participants. The thirty items of the test were authorized following an item analysis, and the defective items were revised and modified. Item facility, item difficulty, and item discrimination were estimated for the reading test. The Cronbach's Alpha reliability index

for the pilot study of RC test was α=0.843. Also, the reliability indices for main idea, inference, unfamiliar vocabulary, text organization, and information recall were .714, .705, .838, .703, and .846, respectively. All of the above-mentioned reliability indices can be considered as "appropriate" (Fulcher & Davidson, 2007, p. 107). The researchers used the piloted test both as the pretest and posttest in the study. In line with Bachman (2005), as the time span between the pre and post-tests was more than eight weeks (i.e., 12 weeks in this study), the test effect was minimized.

3.3 Procedure

The research was carried out at the COVID-19 pandemic period when all the university classes were held online. Hence, Adobe Connect was used for both experimental and control groups emphasizing synchronous online interactions among the teacher and learners. The first and second sessions were devoted to administering the pretests and briefing the students about the classroom activities and research purposes. The third through fourteenth sessions (i.e.,12 sessions) were allocated to the intervention, and the last two sessions were saved for the administration of the posttests and announcing learners' scores. The class met once a week for a total of 16 weeks during the semester, with each session lasting 120 minutes, for both groups; including a 20-minute break at the middle of the class. The researchers had to consider the university's curriculum which was to be covered during the semester, in addition to breaks and midterm exams. Accordingly, one of the researchers who was teaching the course during the experiment, taught eight lessons of the learners' coursebook and followed the university schedule. However, for the whole class time, the methods used in the experimental and control groups differed with respect to the study purposes. The classes in the control and experimental groups therefore received an equal amount of training and practice time.

The experimental group learners were exposed to cognitive-based learning which relied on reading the texts and applying Bloom's taxonomy in posing questions and eliciting answers with regard to the texts. Accordingly, the learners in the experimental group worked with the texts using question and answer technique to cover all six levels of the taxonomy. Bloom's Taxonomy of cognitive learning levels, RC components and CT

sub-skills are coordinated as shown in Table 1, below. This table shows the framework of the syllabus designed based on Bloom's taxonomy for the experimental group.

Table 1.

Framework of the Syllabus Designed based on Bloom's Taxonomy, RC, and CT Skills

Cognitive Level	Reading Skills	Critical Thinking Skills
1.Remembering	*Literal Comprehension (**Information Recall**):* Measuring the ability to remember and recount specific details from the text, which is a fundamental aspect of reading comprehension (Albeckay, 2014; Piñero & Cañedo, 2024).	***Deductive & Inductive Reasoning:*** Whereas inductive reasoning uses proven experience and observations to infer a conclusion, deductive reasoning uses theories and ideas to rationalize and prove a particular conclusion (Adnan et al., 2021; Bag & Grsoy, 2021).
2.Understanding	*Reorganization Comprehension (**Text Organization** and sequencing events):* Sequencing events involves understanding the structure and order of information within a text, which directly relates to how text is organized (Piñero & Cañedo, 2024).	*Deductive & Inductive Reasoning +**Inferencing***: drawing a conclusion from evidence by combining observation and reasoning. Using one's knowledge and expertise to solve a problem is a sophisticated talent (Yan, 2021).
3.Applying	*Identifying **unfamiliar vocabulary**:* Recognizing and understanding new or challenging words within the text is very significant, as vocabulary knowledge is essential for comprehension (Aránguiz Améstica, 2021; Piñero & Cañedo, 2024).	*Deductive & Inductive Reasoning* as well as *activating* both *world knowledge* and the *learned knowledge*. These sub-skills help learners focus on make sue of their prior knowledge to solve problems in the new situations (Almulla & Al-Rahmi, 2023).
4.Analyzing	*Inference Comprehension (**Making inferences**):* Drawing logical conclusions based on information provided in the text combined with prior knowledge, identifying parts of a given text and analyzing the relationships between its different sections (Albeckay, 2014; Piñero & Cañedo, 2024).	*Deductive Reasoning & **Analyzing:** F*ocusing on component parts of information given or a phenomenon. In order to better comprehend, evaluate, and draw conclusions from a text, it is necessary to analyze it by dissecting its concepts and structure (Almulla & Al-Rahmi, 2023; Bag & Grsoy, 2021).
5.Evaluating	*Evaluative Comprehension (**Identifying the main idea** or noting details):* Focusing on the ability to identify the central theme or primary concept of a text, which is crucial for understanding overall content (Albeckay, 2014; Piñero & Cañedo, 2024).	*Deductive & Inductive Reasoning +**Evaluating:*** Relying on logical reasons and evaluating the content presented in the text and checking its values and intentions (Van Le & Chong, 2024; Yan, 2021).
	Appreciative Comprehension (main idea, inferencing, unfamiliar vocabulary knowledge, text organization, & information recall): Appreciative comprehension means recognizing something that matters,	*Analyzing, Evaluating, Inferencing, Deductive, & Inductive reasoning:* Reading the given text thinking critically relying on evaluating the given information and arguments with an open mind and a healthy dose of skepticism.

6.Creating	becoming emotionally engaged with the content, feeling the characters' plights, the author's wit, and compelling arguments as all have the potential to evoke strong emotions in the reader (Todorova, 2024). In some advanced cases reading a piece of written document and developing a critical view based on that is expected, representing both comprehension and evaluation (Yan, 2021).	Analyzing, interpreting, judging, and challenging what is read, watched, or seen in the multimedia as well as the environment around. The goal is to rely on trustworthy information in order to make reliable decisions (Sudarmin et al., 2018; Van Le & Chong, 2024). What is significant at this level is developing a critical look which does not follow sensations, but logics and relies on evidence, not feelings (Adnan et al., 2021)

To translate theories into practice, the cognitive-based syllabus used in the present study, needed to focus on operationalizing the sophisticated views of educational philosophers. Hence, a practical syllabus was designed to employ Bloom's Taxonomy in the reading classroom, assuming that this syllabus would pave the ground for the development of EFL learners' analytical look on reading skills. Moreover, it was assumed that this syllabus would enhance critical thinking of the target learners. Table 2 presents the classroom activities and the interactions aimed at presenting cognitive-based learning for critical reading comprehension based on Blooms' taxonomy in the present study.

Table 2.

Cognitive-based Learning for Critical RC based on Blooms' Taxonomy

Cognitive Level	Definitions	Interactions	Sample Questions
1.Remembering	Focused on remembering and reciting learned information based on the text.	The students read the text silently and underline the new terms observed in the text. Then the teacher asks questions aiming at recalling facts and information to test learners' knowledge level.	How old was the man? / When did the accident happen? How many birds were in the cage? Where…...? / When….? / Who opened the gate? How many….? / How much…? / Whose…?
2.Understanding	Focused on comprehension; explaining the meaning of information and deriving meaning out of the text	To help shape their sensory experience of the text and to help learners establish connections between their senses and language, the teacher urges students to look for new terms and cultural or conceptual mismatches between Iran and England or other countries in the text.	How can you categorize the information given? / What is the best title for the passage? / What is the main idea of the text? / Which one can be supported by the text and why? / Which of the of following points can be less likely deciphered from the text? /

3. Applying	Concentrated on employing the previously learned knowledge to new situations relying on rule, principles, and regulations.	The teacher asks learners rely on their world knowledge and solve problems. When questions are posed in this stage, they may have solutions in the text or may require further thought or investigation. Questions that appear may entice the reader to continue reading for more information.	Which one is the best solution to the problem based on the text intention? / What is your idea about the suggestions made in the text about establishing a lucrative business? / How is the author rejecting the police accountability in the text? / How is it possible to control the situation without force?
4.Analyzing	Concentrated on component elements of information, such as identifying the parts and studying the connections between parts.	Students are asked to read the text paragraph by paragraph and decide upon the main ideas for each section. They are asked to discuss the concepts in their groups and finally come to a decision about each section's main idea.	What is the relationship between A & B? / What are the characteristic features of her personality? / How can you relate the process of escaping the accident to his intelligence? / What evidence does the author mention for the illegal act of the director? / How can the man defend himself in the court? /
5.Evaluating	Concentrated on evaluating and selecting information according to its usefulness for a certain objective.	The teacher asks students to make judgments about the information described in the text based on the criteria set in their mind. They are asked to evaluate the content presented in the text and check its values and intentions. Students are asked to re-evaluate their own understanding of the texts and its use in real context.	What would you do in case you were the man in the room? What do you think about…...? / What is your idea about….? / What is your opinion about changing the program? / On what grounds do you think this will happen? What do you think should be recommended in such a situation? / Which choices can the man have regarding what happened…...? /
6.Creating	Focused on assembling parts of a formula, new models, structures, or compositions	Students are asked to extract the key ideas from texts, summarize the data, and add any additional interpretations. Students are supposed to read texts and think about their main ideas, writers' purposes, text organizations and the message of the text. Then, they share their understanding of the text to all students of the class.	How could the woman change the results? / How would you……to develop a new idea…solving the problem? / How is it possible to invent a machine which……? / How could the polices be changed in your opinion? / What ways can be suggested for controlling inflation? / Which alternatives can be proposed for…...? / How can we minimize / maximize the effect of…. on …...?

The control group was exposed to the Grammar Translation Method (GTM) in which leaners read the text and translated it. Students were encouraged to work out the

translations, focus on cultural facts and terminologies and develop their own list of words, and finally individual learners were asked to read the questions which followed the text and answer them, complete the vocabulary exercises, fill in the blanks to complete some sentences, and translate a similar text of smaller size, which was provided to the class by their instructor, from English to Persian as their homework which was supposed to be done at home. The teacher received the translations of the learners through the classroom online platform which was Adobe Connect and provided them with oral corrective feedback in the next session.

After the treatment sessions were completed, all the learners in the two groups sat for the RC posttest which was the same validated reading pretest whose items and the choices in each item were rearranged in order to minimize the test effect. The collected quantitative data were fed into SPSS version 28 and the results were reported.

4. Results

One-Way ANCOVA was run to compare the experimental and control groups' means in the posttest of RC after controlling for the effect of pretest in order to answer the first research question. First, assumption of normality, reliability along with the three specific assumptions One-Way ANCOVA; linearity, homogeneity of regression slopes, and homogeneity of variances (Field, 2024; Pallant, 2016) were taken into account and approved. Then, One-Way ANCOVA was run. As Table 3 shows, the experimental group (M = 23.07, SE = .886) had a higher mean than the control group (M = 17.95, SE = .865) in the posttest of RC after controlling for the effect of pretest.

Table 3.

Descriptive Statistics for Posttest of Reading Comprehension by Group with Pretest

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Experimental	23.078a	.886	21.315	24.841
Control	17.955a	.865	16.233	19.676

a. Covariates appearing in the model are evaluated at the following values: Pretest = 15.50.

Table 4 shows the main results of One-Way ANCOVA. The results (F (1, 81) =

17.03, p < .01, partial η2 = .174 representing a large effect size) indicated that the experimental group significantly outperformed the control group in the posttest of RC after controlling for the effect of pretest. Thus, the first null-hypothesis as "cognitive-based learning presented through synchronous online interactions does not improve EFL learners' overall RC ability", was rejected.

Table 4.

Tests of between-Subjects Effects for Posttest of RC by Groups with Pretest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Pretest	310.598	1	310.598	9.697	.003	.107
Group	545.508	1	545.508	17.031	.000	.174
Error	2594.416	81	32.030			
Total	38689.205	84				

The second research question was an attempt to find if cognitive-based learning presented through synchronous online interactions could improve EFL learners' RC components. Multivariate Analysis of Covariance (MANCOVA) was run to compare the experimental and control groups' means on posttests of main idea, inference, unfamiliar vocabulary, text organization and information recall after controlling for the effect of their pretests in order to probe the second research question. Assumptions of linearity, homogeneity of regression slopes, and homogeneity of variances were taken into account and approved and then MANCOVA was run.

Table 5 shows the experimental and control groups' means on posttests of components of RC after controlling for the effect of pretests. The results indicated that the experimental group had higher means than the control group on all five tests. The results are discussed with respect to the results of the Between-Subject Tests as presented in Table 7 below.

Table 5.

Descriptive Statistics for Posttests of Components of RC by Group with Pretests

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
PostMainIdea	Experimental	2.774a	.085	2.604	2.944
	Control	2.331a	.083	2.166	2.497
PostInference	Experimental	2.693a	.069	2.554	2.831
	Control	1.991a	.068	1.856	2.126

PostUnfamilar	Experimental	3.032a	.101	2.832	3.232
	Control	2.458a	.098	2.263	2.653
PostTextOrganization	Experimental	2.771a	.078	2.616	2.926
	Control	2.474a	.076	2.323	2.626
PostInformation	Experimental	3.990a	.085	3.820	4.159
	Control	3.708a	.083	3.543	3.873

a. Covariates appearing in the model are evaluated at the following values: PreMainIdea = 2.01, PreInferenceRC = 4.08, PreUnfamilar = 4.89, PreTextOrganization = 2.08, PreInformation = 2.17.

Table 6 shows the main results of MANCOVA. The results ($F_{(5, 73)}$ = 23.37, $p <$ .05, partial η^2 = .616 representing a large effect size) indicated that there was a significant difference between the experimental and control groups' overall means on five components of RC. Thus, the second null-hypothesis as "cognitive-based learning presented through synchronous online interactions does not improve EFL learners' RC components", was rejected. The two groups' means on each of the five components of reading comprehension will be discussed below.

Table 6.

Multivariate ANCOVA for Reading Comprehension by Group with Pretest

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.157	2.729	5	73	.000	.157
	Wilks' Lambda	.843	2.729	5	73	.000	.157
	Hotelling's Trace	.187	2.729	5	73	.000	.157
	Roy's Largest Root	.187	2.729	5	73	.000	.157
Group	Pillai's Trace	.602	22.086	5	73	.000	.602
	Wilks' Lambda	.398	22.086	5	73	.000	.602
	Hotelling's Trace	1.513	22.086	5	73	.000	.602
	Roy's Largest Root	1.513	22.086	5	73	.000	.602

Table 7 shows the results of the Between-Subject Effects which compares the groups on each of the components of RC. Based on these results, and the mean scores shown in Table 5, it can be concluded that;

A: The experimental group (M = 2.77) had a significantly higher mean than the control group (M = 2.33) in the posttest of main idea after controlling for the effect of the pretest ($F_{(5, 73)}$ = 13.54, $p <$ .05, partial η^2 = .150 representing a large effect size).

B: The experimental group (M = 2.26) had a significantly higher mean than the control group (M = 1.99) in the posttest of inference after controlling for the effect of the pretest

(F (5, 73) = 51.33, p < .05, partial η2 = .400 representing a large effect size).

Table 7.

Tests of Between-Subjects Effects for Posttests of Components of RC by Group with Pretests

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
	Post Main Idea	3.965	1	3.965	13.546	.000	.150
	Post Inference RC	9.957	1	9.957	51.335	.000	.400
Group	Post Unfamiliar	6.657	1	6.657	16.386	.000	.175
	Post Text Organization	1.776	1	1.776	7.277	.009	.086
	Post Information	1.607	1	1.607	5.540	.021	.067
	Post Main Idea	22.537	77	.293			
	Post Inference RC	14.935	77	.194			
Error	Post Unfamiliar	31.280	77	.406			
	Post Text Organization	18.793	77	.244			
	Post Information	22.338	77	.290			
	Post Main Idea	582.000	84				
	Post Inference RC	492.000	84				
Total	Post Unfamiliar	674.000	84				
	Post Text Organization	604.000	84				
	Post Information	1273.000	84				

C: The experimental group (M = 3.01) had a significantly higher mean than the control group (M = 2.47) in the posttest of unfamiliar vocabulary after controlling for the effect of the pretest (F (5, 73) = 16.38, p < .05, partial η2 = .175 representing a large effect size).

D: The experimental group (M = 2.77) had a significantly higher mean than the control group (M = 2.47) in the posttest of text organization after controlling for the effect of the pretest (F (5, 73) = 7.27, p < .05, partial η2 = .086 representing a moderate effect size).

E: And finally, the experimental group (M = 3.55) had a significantly higher mean than the control group (M = 2.41) in the posttest of information recall after controlling for the effect of the pretest (F (5, 73) = 5.54, p < .05, partial η2 = .067 representing a moderate effect size).

5. Discussion

Based on the results of data analysis, cognitive-based learning was found effective as the EFL learners in the experimental group outperformed their counterparts in the control group in the posttest of RC components. This is in line with the findings of of

previous studies on the same ground which have proved effective in helping EFL and ESL learners improve their RC ability (Smith et al., 2021; Soltani & Taghizadeh, 2023). As different studies (Assaly & Smadi, 2015; Bikowski & Casal, 2018; Djallel, 2022; Stevani & Tarigan, 2023; Fitri et al., 2024; Stevani & Tarigan, 2023) have argued, in case the development of reading questions in the textbooks follows that of Bloom's Taxonomy, it could indirectly help learners develop critical reading and develop analytical views among them.

Moreover, the study findings highlighted the role of background knowledge and its activation in different phases of critical reading, which is in line with Smith et al.'s (2021) study highlighting the role of background knowledge in reading comprehension. The present findings, under the effect of Boom's Taxonomy, can also take support from Gershon's (2018) study on the efficacy of Bloom's taxonomy in the L2 classroom and on the reading comprehension of EFL learners reporting that familiarizing learners with techniques such as activating or building background knowledge and analyzing the text can make them aware of the main features of reading L2 texts. Moreover, like the present study, Horváthová and Naďová (2021) asserted that a cognitive learning-oriented teaching of L2 reading could help learners understand the message conveyed by the text and they would be able to find out about the intended message of the writer which, in some cases, would be vague to understand due to the technicality and complexity if the texts.

The present study showed the priority of critical and cognitive teaching of L2 reading over the conventional method of translating texts in the Iranian EFL context. Numerous research (Alfaki, 2014; Koksal & Ulum, 2018; Nasir et al., 2022; Pakpahan et al., 2021; Ulum, 2022) have supported the effectiveness of cognitive-based teaching and learning strategic of L2 reading. The present study found that strategies such as a) activating or building background knowledge, b) analyzing the texts, c) making predictions and inferences, d) determining main ideas, and e) synthesizing could facilitate reading comprehension of EFL texts among university students at the B.A level. Likewise, the present study findings are in line with findings of Koksal and Ulum (2018) who focused on assessing L2 reading based on Bloom's taxonomy, and found that reading comprehension questions developed based on this taxonomy can measure both higher

and lower order of critical thinking abilities in the examinees. The study can also take support from Piñero and & Cañedo's (2024) study on learners' reading comprehension skills confirming that the five reading components of main idea, inferencing, unfamiliar vocabulary knowledge, text organization, and information recall are supported by Bloom's taxonomy levels.

As one of the most important linguistic abilities, RC requires students to improve their reasoning abilities and use analytical reading strategies to uncover not just the words' literal meaning but also the passage's underlying meanings; both explicit and implicit. In other words, according to Abenojar (2024) and Todorova (2024), in order to fully understand a text, one must progressively build meaning by recognizing and analyzing the main points, assessing the reliability of the sources, drawing connections to prior knowledge, and finally, synthesizing and reflecting on the final data. Consequently, once reading commences, several levels of cognition are engaged concurrently.

The present study showed that applying Bloom's Taxonomy to L2 reading classroom can enhance EFL learners' ability in answering different reading questions; from recalling the information to deciphering complicated ideas from the text. This can take support from the ideas presented in cognitive-based learning research: Cognitive-based second language reading instruction uses Bloom's taxonomy to stress the usefulness of different questioning strategies, which can be different depending on how the question is written (Alfaki, 2014; Assaly & Smadi, 2015; Ekalia et al., 2022). Cognitive models of reading comprehension provide guidance on the types of inquiries that could aid in better understanding the writer's aim, inferential reasoning, analytical perspectives, and coherence. According to Elias (2014), it is important to focus on the higher levels of Bloom's Taxonomy while asking questions in order to foster higher-order capabilities. In addition, readers need to recognize the logical and causal relationships among events in the text in order to draw meaningful conclusions from it (Febrina et al., 2019).

Surveying the literature thoroughly, the researchers also found that cognitive based instruction benefitting from Bloom's Taxonomy (1956) can help EFL learners enhance their learning ability. According to different studies (Smith et al., 2021; Soltani &

Taghizadeh, 2023), EFL learners can benefit from the cognitive learning levels proposed by Bloom in terms of both language proficiency and various L2 language skills and components. Additionally, critical thinkers are becoming more analytical, reasonable, and logical as they face life's obstacles, which influence their perceptions of themselves, events, and the world around (Bakhtiari Moghadam et al., 2021). However, it is well-established that CT is positively correlated with L2 language proficiency, reading comprehension, and other language skills (Abenojar, 2024; Horváthová & Naďová, 2021; Huyen & Ngoc, 2024).

6. Conclusion

The findings of the present study indicated the positive effect of cognitive-based learning approach on L2 reading development components of EFL learners. By using Bloom's Taxonomy in L2 classroom, this opportunity is provided for learners to be able to express their opinions, do critical reading, and think deeply about what they read. Moreover, collaboration and question-answer sessions provide EFL learners with the opportunity of expressing their opinions and receiving feedback from their classmates and instructors. Based on the conducted research, providing an effective teaching method for the learners of English as a foreign language is considered very valuable because it improves the RC skills of EFL learners, their problem-solving ability, and analytical reading skills. In other words, choosing appropriate teaching/learning techniques, provides the necessary interaction between the reader and the text and can have stable learning outcomes (Almulla & Al-Rahmi, 2023). On the other hand, reading should be used not only as a source of information, but also as a tool for developing language knowledge, thoughts, and critical thinking extension (Bozan, 2024; Chen & Abdullah, 2024). The success in developing L2 reading through Bloom's taxonomy levels can be considered due to the creation of a supportive learning environment among the class members, which can provide more opportunities to explain and refer to, and as a result, the students' understanding of the presented materials would be enhanced (Huang, 2024; Huyen & Ngoc, 2024; Vaughn et al., 2024).

Bloom's Taxonomy levels could be employed by EFL teachers to make learners more

aware of the intentions and ideas in what they are reading. The assumption is that participation in a cognitive-based learning program of an EFL course could facilitate learning (Childs & Taylor, 2022), and learners must pay attention to the features of input they are exposed to and concentrate on the strategies they employ and focus on the way they learn better. This could be done through a kind of cognitive comparison which has been seen as one of the crucial processes in language acquisition. Paige et al. (2024), within the framework of cognitive learning, pay special attention to the role of critical thinking and its correlation with reading comprehension among L2 learners. In the same vein, Huyen and Ngoc (2024) emphasize the importance of providing EFL teachers with teaching strategies and methods relying on cognitive learning approach. They underscore the presence of cognitive based learning in prompting EFL learners' textual and contextual awareness. Bloom's taxonomy, according to Abenojar (2024), serves as a valuable framework for testing learners at all levels of competence, from basic to advanced, during their study. Fastiggi (2014) asserts that teachers can use Bloom's Taxonomy as a framework to teach any cognitive content. Teachers can use it to plan lessons that push their students to their limits and help them achieve their full potential, no matter what subject they teach (Ahmadi, 2020; Akbari et al., 2021).

In addition, EFL learners could employ cognitive based learning using Bloom's Taxonomy to meaningfully solve their L2 reading problems, be focused on analytical and critical reading of materials and this way develop both their critical reading skills and reading comprehension ability in an atmosphere filled with awareness of a mismatch between the input they receive and their current learning. This way the classroom interactions could be enriched and would help subsequent L2 development of the learners.

The present study focused on the effect of cognitive-based learning on Iranian EFL learners' reading comprehension components. Future studies might consider examining the residual effects of cognitive learning methods related tasks and activities to explore whether and how long-term these effects actually could be. A semi-longitudinal study of the concept cognitive learning on a specific group of EFL learners majoring in different fields at the B.A. level can reveal if this technique energizes "retention of EFL reading ability and CT skills in the learners' mentality or not. In addition, the present study

employed Bloom's taxonomy focusing on the EFL reading and CT skills development. Future studies may be needed to replicate the findings with other language skills or components. Moreover, the present study was carried out in the virtual world due to the Covid-19 pandemic. A new study might delve into the issue through comparing the face-to-face interactions and virtual training of the EFL reading courses to the Iranian EFL students in different majors and different higher education levels. Further research is recommended to explore the role of cognitive based learning in developing second language cultural familiarity, cooperative learning, instructed noticing, attention, and awareness in developing grammar, vocabulary, or any other skill and component of the second language and their relationship together or the probable effect they leave on learner autonomy, self-regulatory factors of learning, and learner motivation.

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Designing a human resource development model for employees of municipalities in Tehran Province

Article info

Abstract

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Human resources are the most crucial components of any organizational structure and developing a human resource model to improve the efficiency of organizations is crucial. This research aimed to design a human resource development model for municipal employees in Tehran province. To serve that end, a qualitative design was adopted and data was collected and analyzed based on grounded theory approach. The target population in this research included university professors and experts in human resource management. A total of 15 participants were selected for interviews using snowball sampling until theoretical saturation was achieved. The participants included both male and female with at least seven years of experience in their profession. The research utilized a semi-structured interview to establish a human resource development model for municipal employees. The interview prompts were developed by examination of various national and international models. Subsequently, indicators were identified through open coding and classified into components, and dimensions through axial and selective coding. Ultimately, 4 dimensions, 19 components, and 135 indicators were established for the human resource development model for municipal employees. Finally, the paper provides some implications for an enhanced efficiency in the performance of Tehran province municipalities considering the developed human resource model.

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1. Introduction

Human resources are the most crucial components of any organizational structure capable of moving a country towards development. The correct use of human resources, as the most important and largest asset of any society, has always been a significant concern for governments (Bahari et al., 2022). In other words, every organization needs trained and specialized personnel, recognized as one of the most influential factors in the economic, social and cultural development of any country, to accomplish its objectives (Philip, 2017). When the abilities of the current workforce sufficiently meet these requirements, training may not be urgently needed. However, if the organization's employees lack the necessary knowledge, information and skills, it can lead to numerous financial, administrative and other problems (Behravan & Iravani, 2020). Thus, the development of human resources is consistently regarded as a primary challenge for organizations because it is critical for innovation, quality, continuous growth and other essential factors for survival in a competitive and modern business landscape, where human resources are the creators of ideas. While the latest production technologies can be purchased and utilized, the knowledge and skills of humans are far more intricate and require substantial time and investment to develop (Ghaffarshoja et al., 2022).

Governmental and non-governmental organizations in Iran are inevitably faced with certain challenges within the country in addition to global transformations and trends. On one hand, hierarchical organizational structures lead to slow processes, low productivity, underperformance, unrealistic assessments of human resources, and sometimes dissatisfaction among employees and clients. On the other hand, the establishment of a twenty-year vision document for the country and its announcement by the highest authority mandates officials to create conditions that will elevate Iran to the status of the leading economic, technical and scientific power in the region by the year 1404. Achieving this goal undoubtedly requires extensive planning across different dimensions, one of which is examining the state of the country's administrative system and improving its development indicators including enhancing and growing its human resources.

Municipalities are regarded as one of the most significant service organizations both in the country and globally. In fact, a municipality can be defined as a non-governmental, non-profit and community organization that administers and manages urban affairs with government authorization and community resources. Its purpose is to create and manage public facilities, establish and enforce urban regulations and meet the common local needs while distributing the costs of services logically and fairly among the city's residents and service users (Tabyaniyan & Zahrani, 2021). The general and fundamental definition of a municipality in Iran is that it is a public, non-governmental and independent institution established by law in cities, responsible for local activities and providing services to citizens and urban residents. According to Article 3 of the Municipalities Law, municipalities are independent legal entities (Hadawinejad & Ahmadi, 2017).

2. Review of the Related Literature

Various national and international studies have been conducted in the area of human resource development. For instance, the findings of a study by Paydari (2022) revealed that the human resource development model within Shiraz municipality can be defined through several factors: overarching categories that include strategic, educational and growth-related factors. The organizing categories for strategic factors comprise human resource management strategies and employee performance management. The organizing categories for educational factors consist of organizational needs assessment, human resource needs assessment, and training for human resources. The organizing categories related to growth involve professional development of employees and cognitive development of employees, as well as the enhancement of human resources. Similarly, Hajiloo, Mohammadi, and Doroudi (2021) identified ten factors within six categories for a training-centered human resource development model based on good governance including: causal factors (accountability-transparency), core category (governance capacity building-development), contextual factors (attitude-identity formation), intervening factors (coordination), strategies (outcome orientation-

effectiveness and roles-responsibilities) and outcomes (cultural-social development, individual development, educational development).

Besides, in the model proposed by Babaei-Rayini, Daneshfard, Mirsepassi (2021), three dimensions shape the human resource development model: individual (competency development, knowledge and information sharing, commitment, mutual trust), organizational (employee training, organizational justice, compensation system, meritocracy, talent management), and environmental (economic, political, cultural-social). Mohammadkhani, Shiriyaychi, and Nasirighorghani (2020) identified and validated a comprehensive human resource development model based on organizational excellence and growth, comprising four aspects: philosophy and objectives, theoretical foundations, implementation mechanisms and evaluation and re-engineering.

In the international context, Banmairuroy, Kritjaroen, and Homsombat's (2022) study concluded that leadership style components can affect organizational competitiveness particularly knowledge-based leadership. Additionally, factors such as human resource training, attention to employee competencies, existing organizational culture, organizational justice, consideration for employees' financial well-being and compensation can positively affect organizational competitiveness. Katarzyna Piwowar-Sulej (2021) also reported that factors such as motivation, employee participation, transparency of regulations and rules, the presence of strategic policies in the organization, organizational justice, allocation of necessary resources and management are critical components for human resource development. Dash and Pati (2018) found that three parameters related to human resource development actions; namely, organizational climate, organizational structure of human resources, employee training and evaluation and welfare and financial security measures, as well as organizational technology, have positive correlation with work system performance, while two other parameters such as career path planning and other company initiatives show negative relationship with work system performance. Finally, a study by Harel and Tzafrir (2017) indicated that, besides employee training methods, selection measures and attention to employee competencies and the professional abilities of managers, organizational structure and culture significantly impact perceived market performance.

Understanding the precise dimensions of employee growth and development and providing fundamental and logical solutions for their empowerment and improvement are among the key responsibilities and concerns of organizational managers. Municipal organizations are no exception in this regard, as change is an inevitable necessity for any organization. However, a proper change should be systemic, meaning that all aspects should be taken into account. The significance of this issue is also evident in the Human Resources Deputy of Tehran's Municipalities. To meet customer needs, it is compelled to implement substantial changes and growth in its operational processes to align itself with both internal and external environmental conditions. Moreover, these changes should be carried out systematically. To date, various models for human resource development have been formulated, some of which are summarized in Table 1.

Table 1.

Human resource development models

Title of model and researcher	Results
Model for effective human resource management (Martin, 2020)	Stakeholders, Managerial factors, Situational factors, Organizational policies, Training and Empowerment of organizational members
Human resource development model (Seyed Naghavi et al., 2019)	This includes four key components: participation of human resources in organizational decisions, development of human resource competencies, human resource management, training of human resources, and empowerment of human resources.
Human resource development model (Babaei-Rayini et al., 2021)	The final model of the research comprises three main dimensions: individual (competency development, knowledge and information sharing, commitment, mutual trust), organizational (employee training, organizational justice, compensation system, meritocracy, talent management), and environmental (economic, political, socio-cultural).
Comprehensive human resource development model based on organizational excellence and growth (Hajilo et al., 2021)	The final model was evaluated based on four aspects: 1- Philosophy and goals, 2- Theoretical foundations, 3- Executive mechanism, 4- Evaluation and re-engineering. With an average score above 3, it indicates that the model is validated.

The conceptual model of this study was derived from the examination and study of different models, theories and frameworks. This model consists of six important factors: training and development taken from the model provided by Seyed Naghavi et al. (2019)

and Martin (2020); managerial factors derived from the model presented by Seyed Naghavi et al. (2019), Babaei-Rayini et al. (2021) and Martin (2020); structure-technology model proposed by Hajiloo et al. (2021); and individual factors and the financial conditions of the organization developed by Babaei-Rayini et al. (2021).

Figure 1.

Conceptual model of the present research

Based on the aforementioned points, the researchers attempted to address the following main research question and its sub-questions:

1. What is the appropriate model for the development of human resources among municipal employees in Tehran Province?

   1.1. What are the indicators of the human resource development model for municipal employees in Tehran Province?

   1.2. What are the components of the human resource development model for municipal employees in Tehran Province?

   1.3. What are the dimensions of the human resource development model for municipal employees in Tehran Province?

1.4. How are the dimensions, components and indicators of the human resource development model for municipal employees in Tehran Province prioritized?

3. Methodology

The design of the research was qualitative, and data were collected based on grounded-theory framework. The statistical population included university professors and experts in human resource management. The participants included both male and female and their age ranged from 32 to 59 years old with at least seven years of experience in their careers. Using snowball sampling and based on theoretical saturation, 15 experts were selected. Three pluralistic methods were utilized to verify the reliability of the findings: retesting the research method with 0.89 reliability index, inter-coder reliability testing yielding 0.81value, and using data collected from new interviewees to test the model's reliability with an index of 0.83. These results ensured dependable coding procedure. The validation results of the findings are shown in Table 2.

Data collection involved an in-depth, semi-structured interviews and interview prompts were developed using the review of theories, models, findings of both national and global studies on human resource development models (see sub-questions). Each interview session lasted approximately 20 minutes, allowing for in-depth discussions and reflections of the participants. The interviews were conducted in Persian to ensure that participants could express their thoughts comfortably and accurately. All sessions were audio-recorded with the participants' consent, which was obtained prior to the interviews. This process adhered to ethical guidelines, ensuring that participants were fully informed about the purpose of the study and their right to withdraw at any time without consequence. Before the interviews began, participants were assured that their responses would remain confidential and would be used solely for research purposes. The audio recordings were subsequently transcribed and translated into English for interpretation and analysis.

Data analysis was performed using a coding approach. Indeed, the most important part of the interview data analysis included coding (open, axial and selective) which was conducted as follows: Interviews were transcribed, translated into English and the data

were standardized. Academic equivalents were selected for them in line with the theoretical literature of the research which led to a list of concepts. These concepts were then categorized (Open coding). The emerged categories were linked to one another to create relationships among the codes generated in the open coding phase (Axial coding). Finally, the process of integrating, refining and enhancing the categories was carried out. The researchers organized and arranged the categories in a specific manner to present and form a model which was made possible by identifying the main category.

Table 2.

Instrument validation calculation

Measurement type	Total number of codes	Number of agreements	Number of disagreements	Test-retest reliability
Pluralism in interviewees	139	58	25	0.83
Test-retest reliability	112	50	22	0.89
Inter-coder reliability	104	42	29	0.81

4. Findings

The following results were obtained in response to the research questions which are detailed below: "What are the indicators of the human resource development model for municipal employees in Tehran Province?"

To answer this question, the researcher identified instances related to human resource development. Initially, academic documents and records were examined and an interview checklist was prepared. Subsequently, experts' opinions were elicited. Through semi-structured interviews with the experts, numerous instances were identified which indicated that human resource development for municipal employees in Tehran province could differ from other institutions and organizations. The semi-structured interviews with the experts resulted in identifying 150 initial codes (key concepts). Through the analysis and coding of the interviews, the initial codes were modified and some were removed or refined. Finally, 135 codes were recognized as open codes which are shown in Table 3.

The next question focused on "What are the components of the human resource development model for municipal employees in Tehran Province?" After identifying the open codes (indicators) related to human resource development from the interview texts, the researchers categorized these indicators. Given that the primary unit of analysis for open and axial coding was concepts, during the analysis, concepts were created directly from the participants' interview transcripts or by identifying common themes in their usage through labeling by the researchers. The transcriptions of the interviews were systematically examined to identify the indicators and components which resulted in the identification of 19 components as factors contributing to human resource development. Thus, several concepts (indicators) formed a general category which is referred to as an axial code. The identified axial codes along with the open codes (indicators) are shown in Table 3.

Table 3.

Components and indicators of the human resource development model

Components	Indicators
Beliefs	1. Trust and faith of employees in the organizational philosophy and mission
	2. Adherence to professional ethics
	3. Mastery of the principles of the Islamic religion
	4. Commitment to the Islamic community
	5. Having purity and honesty in behavior and speech
	6. Having religious/revolutionary insight
Efficiency	7. Attention to individuals' education in the organization
	8. Attention to continuing education programs
	9. Consideration of individuals' experience and work history
	10. Attention to individuals' special skills (familiarity with foreign languages, various software)
Motivation	11. Motivating employees by encouraging creative and innovative thinkers both intellectually and practically
	12. Focusing on the positive aspects of individuals' talents and striving to effectively utilize employees' potential
	13. Creating a spirit of enthusiasm and vitality in employees for maximum effort and compassion
	14. Assisting in solving employees' personal problems
	15. Attending to employees' needs and striving to meet them
Behavioral Characteristics	16. Having energy and diligence
	17. Flexibility in dealing with issues
	18. Ability to accept changes
	19. Self-control in difficult situations
	20. Openness to criticism from other colleagues
	21. Risk-taking within the organization
	22. Having a high tolerance threshold
	23. Adherence to principles and principled behavior

Structure	24. Existence of a clear organizational structure at all levels of the organization
	25. Presence of an information and communication system within the organization regarding human resource development
	26. Having a designated authority responsible for implementing and advancing programs
	27. Interaction between substructures and the overarching structure regarding human resource development
	28. Development of appropriate methods and guidelines for human resource development
	29. Systematizing methods regarding the organizational structure with a forward-looking perspective
Strategic Policies	30. Formulation of practical and operational policies for human resource development within the organization
	31. Monitoring the implementation of policies related to human resource development within the organization
	32. Institutionalizing policy-making regarding human resource development within the organization
	33. Aligning policies with organizational goals concerning human resource development
	34. Evaluating policies regarding human resource development within the organization
	35. Continuous feedback on policies related to human resource development within the organization
	36. Developing programs for a desirable future arising from human resource development
Culture	37. Developing a culture of human resource development within organizations
	38. Creating shared beliefs in development among the organization's human resources
	39. Establishing shared values regarding development among the organization's human resources
	40. Having a value oriented perspective on development among all members of the organization
	41. Introducing exemplary models of human resource development among employees
	42. Cultivating a culture of stability and job security among employees
	43. Establishing an organizational culture that encourages professional development and enhances employees' capabilities
	44. Implementing various programs to emphasize the importance of human resource development
	45. Strengthening the culture of human resource development through management systems
	46. Promoting a culture of meritocracy and deservingness
Organizational Intelligence	47. Thoroughly understanding competitors
	48. Planning tasks and setting expectations for employees within the organization
	49. Ensuring transparency in regulations, rules, and organizational policies
	50. Having insight and a realistic view of the future
	51. Recognizing the factors influencing the dynamism of the organization
Organizational justice	52. Creating the groundwork for providing adequate rights
	53. Utilizing experienced experts for economic consulting within the organization
	54. Addressing administrative and economic corruption within the organization
	55. Attention to the fair distribution of wealth within the organization
	56. Dealing with unnecessary and unreasonable tariffs within the organization

	57. Establishing relationships among individuals based on the exchange of valuable resources within the organization
	58. Promoting an educational environment for advancement within the organization
	59. Providing educational opportunities for all employees within the organization
Capability	60. Encouraging the reflection process (learning how to learn)
	61. Training to develop one's decision making framework and model
	62. Understanding and recognizing employees' learning styles
	63. Training in customer, centric techniques
	64. Training in systems thinking
	65. Training in teamwork
	66. Training in knowledge transfer
	67. Training in applying knowledge
	68. Holding regular meetings to review laws, regulations, and circulars
	69. Continuous training and development of employees at all levels of the organization
Evaluation	70. Clarity of expectations from employees by management
	71. Clarity of evaluation criteria within the organization
	72. Obligation for managers to document employee performance and behaviors
	73. Informing employees about the results of their performance evaluations
	74. Utilizing standard evaluation methods within the organization
Managerial Skills	75. Awareness of group decisions and needs
	76. Supporting group members in critical situations
	77. Understanding current situations to make the right decisions for the organization's future
	78. Efforts to meet the needs of group members
	79. Commitment to the mental and spiritual growth of each individual in the organization
	80. Controlling the components of the organizational system (inputs, behaviors, and outputs)
	81. Justifying democratic principles through participation
	82. Involvement of all stakeholders in organizational leadership
	83. Leadership's emphasis on the commitment and capabilities of organizational members
	84. Individuals' commitment to the organization's goals
	85. Achieving results that satisfy all stakeholders in the organization
	86. Maximizing employee participation through their development and involvement in affairs
	87. Challenging the current situation and creating change to foster innovation and improvement opportunities through learning
	88. Developing and maintaining collaborations to create added value for the organization
Resource Provision and Allocation	89. Provision of necessity gift cards
	90. Providing organizational housing
	91. Offering loans and financial facilities
	92. Establishing a welfare council
	93. Allocating land for construction
	94. Creating opportunities for leisure and holidays
	95. Paying salaries and wages based on performance
	96. Paying salaries and wages based on work history and experience
	97. Paying salaries and wages based on seniority
	98. Providing opportunities for promotion for deserving employees
	99. Utilizing the experiences of retired individuals to achieve organizational goals

	100. Ensuring job and psychological security
Infrastructure Development	101. Establishing a fast and suitable technological structure for communications
	102. Having an electronic system to address issues
	103. Ensuring access for all individuals to the network
	104. Creating a platform for virtual networks and the rapid exchange of news and information
	105. Establishing a quick and easy platform for resolving employee issues, and for submitting comments and suggestions
Technology Development	106. Allocating sufficient budget for updating technology equipment in the organization
	107. Implementing short-term courses to familiarize with technological advancements
	108. Developing a knowledge-based structure in contrast to a non knowledge-based structure in the organization
	109. Ensuring access for all employees to software and hardware technology in the organization
	110. Availability of secure electronic software for recording employees' experiences and knowledge
	111. Identifying the strengths and weaknesses of the organization's information systems and technology
Cultural	112. Emphasizing Iranian-Islamic ethical values within the organization
	113. Emphasizing the diverse local values of individuals
	114. Collective and public attachment to religious symbols, rituals, and institutions
	115. Commitment to the essence of religion and fundamental values, and the universality of these values
	116. Emphasizing respect for the customs and traditions of various individuals in the organization
	117. Emphasizing language and literature
	118. Emphasizing territorial and climatic characteristics
	119. Emphasizing religious awareness
	120. Emphasizing local culture
	121. Participation and willingness to practice religious rituals and ceremonies
	122. Religious symbols, rituals, and institutions
Social	123. Acceptance of individuals by others within the organization
	124. Allowing individuals to take risks within the organization
	125. Acceptance of individuals' mistakes within the organization
	126. Encouraging collective discussions within the organization
	127. Attention to individuals' intrinsic motivations within the organization
	128. Creating a favorable systemic atmosphere in the organization
	129. Inspiring leadership for the employees of the organization
Environmental	130. Attention to small-scale environmental goals within the organization
	131. Attention to large-scale environmental goals within the organization
	132. Attention to how environmental goals are performed within the organization
Political	133. Establishing trust and confidence in the political system
	134. Acceptance of the legitimacy and effectiveness of the organization's political system
	135. Loyalty to the political institutions of the organization

The next question dealt with "What are the dimensions of the human resource development model for municipal employees in Tehran Province?" During the selective

coding phase, the identified components were organized into more abstract categories, which shaped the dimensions of the human resource development model. This resulted in 135 open codes (indicators) being classified into 19 axial codes (components) which were then categorized under 4 selective codes (dimensions). The dimensions, components and indicators revealed from the data are shown in Table 4.

Table 4.

Dimensions, components and number of indicators of the human resource development model

Dimensions	Components	Number of Indicators
Individual	Beliefs	6
	Efficiency	4
	Motivation	5
	Behavioral Characteristics	8
Organizational	Structure	6
	Strategic Policies	7
	Culture	10
	Organizational Intelligence	5
	Organizational Justice	8
	Capability	10
	Evaluation	5
Managerial	Managerial Skills	14
	Resource Allocation	12
	Infrastructure Development	5
	Technology	6
Environmental	Cultural	11
	Social	7
	Environmental	3
	Political	3

Finally, the last question was "How are the dimensions, components and indicators of the human resource development model for municipal employees in Tehran Province prioritized?" In the final stage, the Delphi technique and brainstorming sessions were conducted to review and analyze all identified dimensions, components and indicators. Initially, these were sent to 20 experts and their feedback was collected. The gathered feedback was incorporated into the findings and they were sent back to the experts for their confirmation.

In the theoretical validation of the model, the components and indicators of the human resource development model for municipal employees were structured and

validated by experts. Next, the content validity ratio (CVR) was calculated to confirm the model components. For further validation, another brainstorming session with five academic experts was conducted, during which expert opinions were incorporated and they were asked to prioritize the dimensions, components and indicators. The results are shown in Table 5.

Table 5.

Prioritization of dimensions and components of the human resource development model for municipality employees

Dimensions	Priority	Components	Priority
Individual	1	Beliefs	1
		Efficiency	2
		Motivation	3
		Behavioral Characteristics	4
Organizational	2	Structure	1
		Strategic Policies	2
		Culture	3
		Organizational Intelligence	4
		Organizational Justice	5
		Capability	6
		Evaluation	7
Managerial	3	Managerial Skills	1
		Resource Allocation	2
		Infrastructure Development	3
		Technology	4
Environmental	4	Cultural	1
		Social	2
		Environmental	3
		Political	4

Ultimately, the human resource development model for municipal employees was designed as follows.

Figure 2.

The human resource development model for municipal employees in Tehran Province
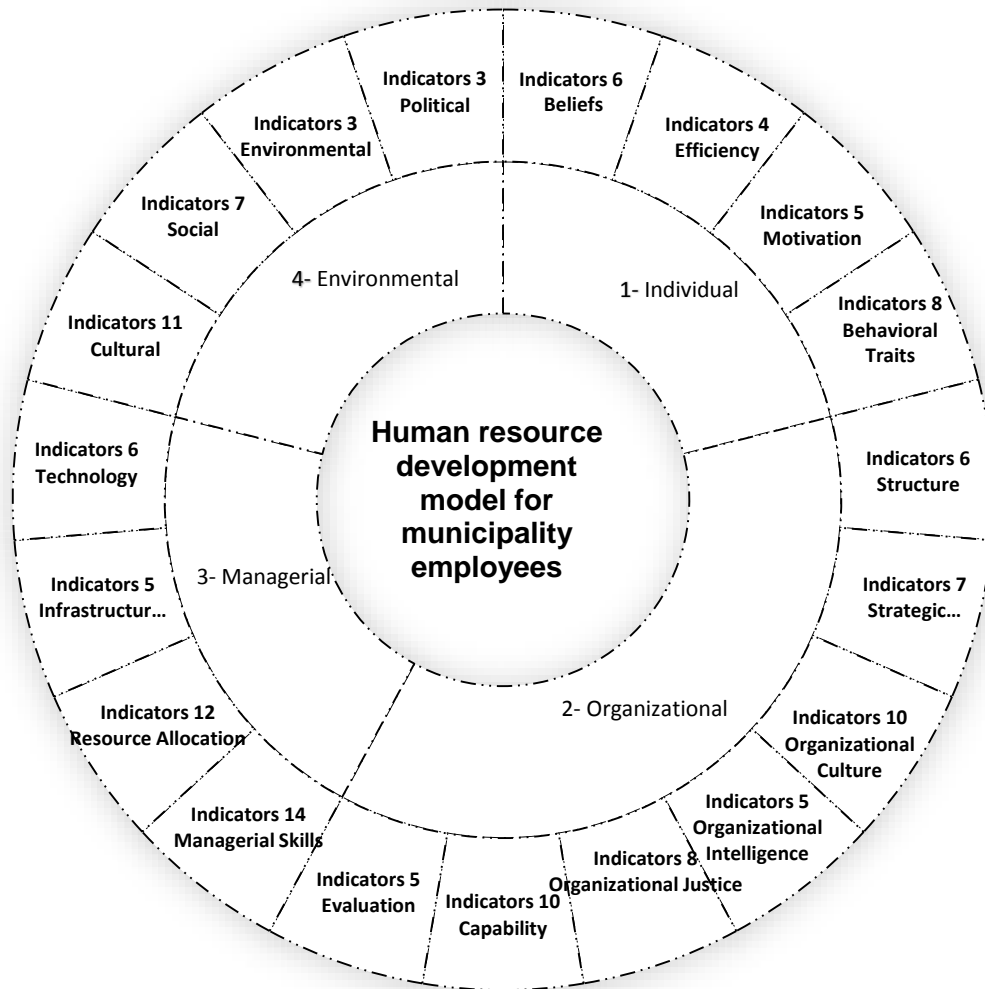
5. Discussion and Conclusion

This study aimed to design a model for developing the human resources of municipal employees in Tehran Province. Overall, 135 indicators, 19 components and 4 dimensions for this model were emerged from a qualitative study using grounded theory approach.

The dimensions of the proposed model included individual, organizational, managerial and environmental aspects, and 19 components such as beliefs, efficiency, motivation, behavioral characteristics, structure, strategic policies, culture, organizational intelligence, organizational justice, competence, evaluation, managerial skills, resource allocation, infrastructure development, technological development, cultural, social, environmental and political factors. Further, the identified components were composed of specific indicators (135). These findings framed within dimensions, components and indicators can result in the development of human resources among municipal employees based on the results.

The results of this study are consistent regarding components of organizational justice, talent management and attention to political, cultural and social environments with the findings of Babaei-Rayeni et al. (2021). Regarding the emphasis on evaluation components, our results align with the findings of Mohammadkhhani et al. (2020). In terms of the focus on technology infrastructure, management and leadership style, organizational justice and financial resource allocation, the findings support the research conducted by Banmairuroy, et al. (2021). Additionally, the results of the study concerning motivation, employee justice, management, and organizational justice are consistent with the findings of Katarzyna Piwowar-Sulej (2021).

In interpreting the findings, it can be stated that this model reveals some critical factors for the development of human resources in municipalities. Today, organizations employ various strategies to achieve their objectives including business and financial strategies. However, the most crucial strategy is human resource management because human resources are the most valuable asset of organizations. Effective human resource management involves strategic and sustainable approaches to harness the potential of employees in achieving organizational goals. If human resources are effectively managed, they can play a vital role in economic growth and development of the organizations. Therefore, organizations must create an environment that not only attracts human resources but also maximizes the utilization of individuals' capabilities and talents.

Additionally, the results indicate that human resource development includes different dimensions, with the individual dimension being the most important in this study.

In explaining the individual dimension, it can be stated that attention must first be given to the beliefs of municipal employees, with a focus on their religious and revolutionary beliefs through education and development initiatives. Following this, the efficiency of human resources should be assessed considering their experiences, educational backgrounds and individual skills to determine how these factors can enhance their performance. Furthermore, it is essential to evaluate how much the municipality inspires and motivates the employees. To achieve this, the municipality should implement motivational and incentive programs. Finally, attention must be paid to the behavioral characteristics of municipal employees. If problems are identified in this area, strategies should be developed to enhance employees' flexibility, self-regulation skills, adaptability to change, alignment with the municipality's goals and a strong work ethic.

The organizational dimension serves as the second aspect of the human resource development model for municipal employees. In this regard, it is essential first to reform the structure of human resource development which means that a dedicated unit should be clearly defined for this aim. To achieve this, a legal framework should be established within the organizational structure along with the preparation and drafting of relevant guidelines and regulations. Subsequently, appropriate strategies and policies for human resource development should be formulated in all higher-level documents and made accessible to all stakeholders. Furthermore, a culture of human resource development should be cultivated by identifying shared values and implementing awareness programs to foster social acceptance of this culture. The promotion of smart technologies and organizational justice should be prioritized in the municipality's programs which allows employees to monitor their status through electronic systems and ensures that all developmental programs are accessible to everyone. This leads to individual participation, empowering employees and continuous assessments of their capabilities.

The third aspect of human resource development pertains to the managerial dimension. Managers in the municipality should be capable of using three key resources: finance, tool, and human. Additionally, various educational programs should be planned to enhance the skills of municipal managers in line with employee development. The necessary infrastructure for human resource development such as electronic systems, virtual platforms and systems for providing feedback, suggestions and criticisms should

be established and made readily accessible to all employees. Moreover, various technologies should be developed so that all staff can utilize them within the municipality, which facilitates their tasks as much as possible.

Ultimately, the environmental dimension emerged as the fourth aspect of the human resource development model in this study. In this regard, attention must be paid to the diverse cultures, values, rituals, customs, languages, ethnicities and religions of the employees within the municipality. From a social perspective, it is important to encourage individuals to take risks in their work, promote teamwork, take responsibility for their mistakes and foster an inspiring atmosphere within the organization. Consideration for environmental issues should be evident in both micro and macro-level plans. Finally, trust must be established concerning the political system governing the municipality, ensuring that employees have confidence in the prevailing political institutions and remain loyal to them.

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Designing and Validating a Model of Reflective Skills for Iranian EFL Teachers

Article info

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Abstract

This study aimed to develop and validate a model of reflective skills for Iranian EFL teachers to help them acquire reflective skills. Accordingly, an exploratory sequential mixed-methods design was used in two phases. In the qualitative phase, 50 EFL teachers were recruited based on available sampling method from different private language institutes of Fars Province, Iran to participate in semi-structured interviews. The interview data were analyzed following open, axial, and selective coding procedures and the results were used to develop a reflective skills questionnaire. The quantitative phase involved 300 EFL teachers who were selected through available sampling to complete the researcher-made questionnaire. The process of quantitative data analysis was conducted through Cronbach's Alpha test, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). According to the results, a model of reflective skills for Iranian EFL teachers was designed consisting of three main components including social skills, pedagogical skills, and transformative skills, with twelve sub-components. The findings offer some implications for policymakers, teacher trainers, and other stakeholders in charge of training and recruiting EFL teachers.

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1. Introduction

Language teaching is a complex process influenced by various factors, with the teacher playing an essential role as an active decision-maker (Nayernia et al., 2022). Indeed, a teacher's features significantly impact classroom instruction. Considering the influence of teacher reflectivity on the teaching process and the close association between learning and teaching, the concept of reflective teaching warrants further exploration. Undoubtedly, students' learning and achievement are heavily influenced by their teachers' characteristics. The strong connection between learning and teaching is well-established, particularly in the context of language education, where these two processes are deeply interconnected (Quan, 2022).

Reflective teaching can be understood as an ongoing process that significantly contributes to a teacher's professional development. This process both enhances pedagogy, and comprehension and aids teachers in making more novel decisions in their instructional practices, thereby expanding their professional knowledge and practices (Mazandarani & Troudi, 2022). Straková and Cimermanová (2018) asserted that the development of reflective thinking, as part of a broader metacognitive awareness, is indispensable in teacher education. It allows for the re-examination of deeply ingrained beliefs, which can be challenging to articulate but are crucial for teaching. Accordingly, teachers, among other things, need reflective skills.

However, there is empirical evidence that reflective teaching has not yet gained the prominence it deserves in the country's EFL education system (Yaghoobi Hamgini & Abedini, 2023). Specifically, many classrooms still operate with a fixed set of materials, delivered through rigid, conventional teaching methods that lack any element of reflection or adaptability. Regrettably, the researcher's experience has shown that many teachers function primarily as lecturers, rarely attempting to reassess or evolve their teaching approaches. More precisely, the banking model of instruction offers little meaningful benefit to either teachers or learners (Freire, 1970).

Research on reflective teaching in Iran remains relatively underdeveloped (Abazari et al., 2023). One possible reason for this gap is that while reflective teaching has been extensively discussed at the theoretical level, there has been little focus on its practical

application. The lack of a clear, comprehensive framework leaves teachers uncertain about how to implement reflective practices in their classrooms. More critically, within Iran's EFL teaching system, reflective teaching, as far as the researcher is aware, has not even been explored as a potential approach, much less as a practical method. In Iran, the traditional view persists that teachers are all-knowing authorities, while learners are merely passive recipients of knowledge.

Specifically, as far as the researcher is aware, no investigation has yet designed and validated a model of reflective skills for Iranian EFL teachers. To address this research gap, the current investigation sought to design and validate a model of reflective skills customized to Iranian EFL teachers. The findings of this study may hold significant value for some reasons. First, as global education increasingly emphasizes reflective teaching, any effort to explore teacher reflectivity may be highly important. Developing a model of reflective skills for Iranian teachers may enhance their communication abilities, a critical need in today's interconnected world. Moreover, as Kim (2012) pointed out, reflective teaching benefits learners as well, improving deeper engagement with the subject matter and prompting them to consider the reasons behind their actions. Through tools like journals, reflective teaching may help learners bridge the gap between theoretical understanding and practical experience. Additionally, the importance of reflective teaching may extend to the construction of new knowledge in teachers. As Yayli (2009) suggested, reflection on prior knowledge is essential for constructive modifications in teaching practices.

Furthermore, this study may be particularly relevant given the close interconnection between EFL teaching and learning, and the strong potential of reflective teaching to enhance the quality and effectiveness of EFL instruction, ultimately leading to greater student success. While some investigations, both in Iran and internationally, have explored reflective teaching from different perspectives (Choy & Oo, 2012; Kaneko-Marques, 2015; Minott, 2015; Silver, 2015; Soodmand Afshar & Farahani, 2015; Zohrabi & Yousefi, 2016), none, to the researcher's best of knowledge, have proposed a model of reflective skills specifically for Iranian EFL teachers. This investigation aimed to fill that gap by addressing the following research question:

RQ: What are Iranian EFL teachers' perceptions of reflective skills?

2. Review of the Related Literature

2.1. Theoretical Framework

Dewey (1933) described reflective action as "the active, persistent, and careful consideration of a belief or alleged form of knowledge in light of the reasons that support it, and the other conclusions to which it leans" (p. 118). According to Griffiths (2000), reflection is most likely to occur when professionals encounter a unique or unexpected situation. In these cases, rather than solely relying on established theories or previous experiences, individuals leverage a diverse array of examples to reinterpret the situation and devise novel solutions. Conversely, reflection-on-action is characterized by a deliberate, retrospective examination of one's performance to gain understandings and learn from the experience (Day, 2000; Garrido, 2023).

Hillier (2005) argued that we can liberate ourselves from the confines of traditional classroom limitations by "questioning and then replacing or rephrasing an assumption that is considered by a majority to be the dominant common sense" (p. 14). Zeichner and Liston (1996) emphasized that not all thought about teaching qualifies as reflective practice. They highlight the distinction between reflective and technical instruction, stating that "if a teacher never questions the goals and values that drive their work, the context in which they teach, or the assumptions underlying their approach, then that teacher is not truly engaging in reflective teaching" (p. 1).

Smith (2001) further differentiated between technical rationality and tacit knowledge, addressing the theory-practice gap. Like Dewey (1933), Schön (1991) believed that reflection is initiated during the process of working through complex and problematic situations. This reflection is an interplay of theory and experience. In such challenging contexts, relying solely on tacit knowledge is insufficient; teachers must draw upon both their theoretical understanding (technical rationality) and the practical insights they have gained through experience.

Richards (2002) and Garrido (2023) proposed several approaches to becoming a reflective teacher, including self-observation, observing others, team teaching, and exploring one's teaching philosophy through writing. According to Richards, the process

of reflective teaching unfolds in three stages:

Stage 1: This stage involves the actual teaching event, such as a lesson or another instructional activity. It includes both the teacher's own teaching and the observation of another's teaching. Stage 2: This stage is the recollection of the event. It involves documenting what occurred without attaching any explanations or evaluations. Various methods can be used at this stage, such as writing a detailed description of the event, recording it via video or audio, or utilizing checklists or coding systems to capture the event's specifics. Stage 3: The final stage, known as review and response, involves objectively describing and reviewing the event. At this stage, the teacher processes and critically questions the event in depth which allows for a thorough examination of the teaching practice.

Richards (2002, p. 5) noted that "while reflective teaching, like other forms of self-inquiry, carries certain challenges such as the time-consuming nature of journaling, self-reporting, or recording lessons, teachers who engage in reflective analysis often find it to be a valuable tool for self-evaluation and professional growth." Reflective teaching highlights that merely accumulating experience is not enough for professional growth. Instead, it is the integration of experience with thoughtful reflection that is an influential driver for teacher development.

Akbari et al. (2010) developed a reflective teaching questionnaire for L2 teachers. They suggested a six-component model of second language teacher reflection, which included practical, cognitive, meta-cognitive, affective, critical, and moral reflection. Besides, Mahmoodi et al. (2013) assessed the relationships among teachers' reflection, classroom management orientations, perceptions of language learning strategies, and students' L2 achievement. A significant correlation between these teacher variables and students' L2 development was found. Among these variables, teacher reflection was the strongest predictor of student success.

Also, Alipoor and Jadidi (2016) aimed to investigate the relationship between EFL teachers' reflection and their cognition regarding vocabulary teaching. The study revealed a significant relationship between teachers' reflective practices and their preference for function-based vocabulary teaching methods. Similarly, Zohrabi and Yousefi (2016) investigated the interplay between reflectivity and language proficiency among Iranian

EFL students. A significant positive relationship was found between students' reflectivity and their proficiency test scores. Finally, Yaghoobi Hamgini and Abedini (2023) did a meta-analysis of ten papers on the impact of reflective teaching on EFL students` achievement. According to the results, sample size of the experimental group had a negative effect on the students` achievement. In addition, publication type affected the effect sizes.

3. Methodology

3.1. Design

This study benefited from an exploratory sequential mixed-methods design. In the qualitative phase, grounded theory design was used to develop a model of reflective skills for Iranian EFL teachers. Moreover, in the quantitative phase, a quantitative survey design was used to validate the developed model and check its reliability.

3.2. Participants

As the participants of the qualitative phase, 50 EFL teachers, evenly split between 25 males and 25 females, holding either M.A. or Ph.D. degrees in Teaching English as a Foreign Language (TEFL), with varying years of teaching experience at twelve private language institutions across Fars Province, Iran were selected through available sampling. The reason for the selection of both M.A. and Ph.D. teachers with different years of teaching experience was that diversity added to the richness of data and consequently, the richness of the emerged model. They were chosen through virtual groups in social networks including WhatsApp and Telegram due to the constraints imposed on the study as a consequence of the prevalence of Covid-19 virus at the time of data collection. All participants were native Persian speakers, and their ages ranged from 30 to 65 years. In the quantitative phase, 300 (150 males and 150 females) EFL teachers with the above features participated through available sampling. The research ethics was observed in sampling the participants of both phases of the study by making the participants informed of the aims of the study. Moreover, the researcher ensured them that their personal information remained anonymous and confidential.

3.3. Instruments

a) Semi-Structured Interview

A Semi-structured interview was designed to explore the participants' perceptions of the reflective skills of Iranian teachers so that a model of reflective skills for Iranian EFL teachers could be developed. To design this interview, the researchers used the literature and obtained expert opnions. The interview consisted of 5 open-ended questions on 'how reflectivity can be used in EFL teaching, what reflective EFL teachers do in classroom, the reflective skills of EFL teachers, explanation of these skills, and characteristics of reflective EFL teachers'. The interviews were conducted by one of the researchers in English with no time limitation. For the comfort of the interviewees, it was audio-recorded by the researcher in a one-to-one format in WhatsApp and Telegram. To ensure the credibility and dependability of the data, member checks and low-inference descriptors were employed. Low-inference descriptors involved presenting direct quotations from the interviews which allowed the readers to engage with the participants' perspectives through their own words (Ary et al., 2019). Member checks were also utilized by the researcher to enhance accuracy and respect for the participants. This process involved sharing interpretations of the data with the participants to prevent miscommunication, recognize any inaccuracies, and give participants the opportunity to review what had been written about them. By obtaining feedback, the researcher ensured that the participants' responses were correctly understood and accurately reflected in the study (Ary et al., 2019).

b) Researcher-Made Questionnaire

A questionnaire was developed by the researchers based on the model emerged from the interview data of reflective skills for Iranian EFL teachers (See Appendix). The rationale behind designing this questionnaire was to propose a validated reflective skills model through converting the model into a closed-ended questionnaire and running exploratory and confirmatory factor analysis and Cronbach's Alpha Test on the questionnaire data (Jafari et al., 2024; Jalali et al., 2023; Zohrabi et al., 2019). However, there may exist other methods to do this and this is not the only existing method but the researchers found it a prevalent method for validation of the newly proposed models.

Congruent with the emerged model, the questionnaire consisted of twelve sub-

scales including behaving in a socially acceptable manner (items 1 to 5), being able to motivate students (items 6 to 10), managing classroom (items 11 to 15), attending to students' diversity of needs (items 16 to 20), planning appropriate teaching and evaluation methods and strategies (items 21 to 25), thinking skillfully (items 26 to 30), thinking critically (items 31 to 35), thinking creatively (items 36 to 40), being verbally active (items 41 to 45), giving and receiving feedback from students (items 46 to 50), evaluating one's own teaching (items 51 to 55), and making appropriate modifications in one's own teaching (items 56 to 60).

Accordingly, the questionnaire consisted of 60 items in the form of statements to which the respondents were to answer in a 5-point Likert scale from (1) strongly disagree, (2) disagree, (3) neutral, (4), agree, to (5) strongly agree. It is worth noting that the respondents of this questionnaire were the participants of the quantitative phase (i.e., 300 EFL teachers). However, this was not a self-report questionnaire but it was a closed-ended questionnaire which was developed based on the interview data and the teachers were asked to show the degree of their agreement with its items or judge its items (Jafari et al., 2024; Jalali et al., 2023; Zohrabi et al., 2019).

To pilot this questionnaire, the researchers recruited 100 participants whose demographic features were similar to the participants of the study to ensure its validity and reliability. To this end, exploratory factor analysis (EFA) and Cronbach's Alpha test were run. The results of EFA are shown in the next section. Cronbach's Alpha reliability was calculated and the value was .75.

3.4. Data Collection Procedure

To collect the data, first, the semi-structured interview was implemented to explore the perceptions of EFL teachers of reflective skills of Iranian EFL teachers. Then, following Ary et al. (2019), open, axial, and selective coding procedures were run to analyze the interview data and develop the model. Open coding was run on the interview data to extract the codes or the recurrent words and phrases in the data. Next, axial coding was run wherein similar codes were categorized as main themes. The outcome of axial coding was identification of 12 themes including behaving in a socially acceptable manner, being able to motivate students, managing classroom, attending to students' diversity of needs, planning appropriate teaching and evaluation methods and strategies,

thinking skillfully, thinking critically, thinking creatively, being verbally active, giving and receiving feedback from students, evaluating one's own teaching, and making appropriate modifications in one's own teaching. These themes are well-elaborated and supported by some quotes from the participants in the results. In the selective coding, the themes were categorized under three main categories including social skills, pedagogical skills and transformative skills, based on teaching area they covered. Finally, a model of reflective skills for Iranian EFL teachers was emerged that consisted of 3 main components including social skills, pedagogical skills, and transformative skills, each consisting of some sub-components (See Figure 1).

Thereafter, to validate the developed model, a closed-ended questionnaire (described above) was designed and piloted, based on the developed model of reflective skills for Iranian EFL teachers. Next, the piloted questionnaire was distributed among 300 (150 males and 150 females) EFL teachers in WhatsApp or Telegram to be completed and later analyzed by suitable data analysis tests.

To analyze the data, in the piloting phase, the construct validity of the closed-ended researcher-made questionnaire was checked through exploratory factor analysis (EFA) available in SPSS 24. Before running EFA, Bartlett Sphericity test and Kaiser-Meyer-Olkin (KMO) test were performed to examine the sphericity assumption and Adequacy of content sampling. Then, the optimal number of factors was determined using parallel analysis. Next, EFA was run using Principal Components Analysis with Varimax rotation with the determined factors. The second part of the piloting phase involved running Cronbach's Alpha to check the reliability of the closed-ended researcher-made questionnaire, which was calculated .75, as mentioned before.

Following that, in the main phase of the study, the higher order confirmatory factor analysis (CFA) available in the AMOS24 package was run on the questionnaire data to check the construct validity of the developed model of reflective skills for Iranian EFL teachers, using Maximum likelihood estimation method and examining the goodness of fit of the model. Finally, the reliability of the developed model of reflective skills for Iranian EFL teachers was evaluated using Cronbach's alpha coefficient. It is worth mentioning that the validity and reliability of the questionnaire shows the validity and reliability of the proposed model.

4. Results

To answer the research question, first, the following themes were extracted from thematic analysis of the interview data:

1. Behaving in a socially acceptable manner

This theme shows that as perceived by EFL teachers, reflective teachers should have a socially acceptable behavior.

As said by teacher 4:

Teachers should behave well socially. They should have a good behavior in social aspects. Their behavior should be prestigious.

Teacher 18 also stated that:

Teachers should know that their behavior reflects their character and personality. Their behavior is judged by students. This is very important for teachers to have a good behavior.

Teacher 15 also noted that:

Teachers should be careful about their behavior. Behavior of teachers is as important as their knowledge. Even it is more important than knowledge in some cases. Good social behavior is a big advantage for teachers."

According to teacher 26:

Teachers should act in a socially good and standard way. Many students are dissatisfied with teachers' behavior. However, behavior is not just a uni-dimensional concept. It consists of diverse dimensions which should be taken into account by the teachers.

2. Being able to motivate students

As hidden in this theme, reflective teaching is equal, among other things, with the capability to motivate students.

Teacher 17 expressed that:

Teachers should be able to encourage students' motivation. If they increase

motivation of students, they will be helped in learning process. Teachers should pay heed to motivating students.

Teacher 35 explained that:

Motivation is of a key role in language learning. Therefore, the teachers should motivate students in different ways.

Teacher 43 stressed that:

Teachers should use different motivational techniques. This leads to students' learning and success. When students learn better, teachers feel more satisfied in their work.

3. Managing classroom

This theme indicates that teachers should be skillful in classroom management.

According to teacher 29:

Unfortunately, crowded classes are common in Iran. In such situations, classroom management is a big art for teachers. Teachers should make their best to generate balance in the classroom so that the time of classroom is alocated to useful things.

Teacher 10 acknowledged that:

Classroom management is a concern for both novice and experienced teachers. Even teaching experience cannot reduce the difficulties of classroom management for teachers. There exist different models of classroom management which can make teaching easier for teachers.

Teacher 42 mentioned that:

Students learn more effectively in a setting where everything is righty placed and paced. This is technically called classroom management. Over attention to something and ignoring other things do not make teachers successful.

Teacher 35 admitted that:

Teachers should know how to manage the classroom effectively. It is a really embarrassing task for new teachers. If classroom is well managed, improved teacher

reflection can be expected.

4. Attending to students' diversity of needs

As understood from this theme, reflective teachers can recognize needs of students.

Teacher 50 said that:

Teacher reflectivity cannot be separated from fulfillment of students' needs. Students have a variety of needs in English learning, which should be met by education. The first step in need fulfillment is need recognition. This is teachers' duty to recognize needs of students to fulfill them."

Teacher 27 emphasized that:

Reflective teaching is not achieved just by going to the class and presenting some instructions to the students. But it involves other issues which are important in the process and outcomes of teaching. Students have their own needs and these needs have prompted them to be present in English classes. Teachers should be aware of these needs and attempt to meet them.

As stated by teacher 39:

Teachers' success is tied to meeting students' needs. Even if they teach skillfully with the best teaching methods, if they are indifferent to students' needs, they do not gain remarkable results. Students feel disappointed if their needs are not dealt with by the teacher.

Teacher 40 mentioned:

Goal setting is a direct result of having needs. Students, like any group in the society, have their own needs which are worth probing by their teachers. This gives meaning to learning. Otherwise, they will be uninterested in language learning.

5. Planning appropriate teaching and evaluation methods and strategies

As felt by this theme, reflective teachers should benefit from appropriate methods of teaching and evaluation.

Teacher 44 believed that:

Whether we like it or not, teaching and evaluation methods are the main parts of English teaching job. In fact, teachers are known for their teaching/evaluation methods. After some years of teaching, some teaching and evaluation methods are fixed in teachers. If teachers use appropriate methods of teaching and evaluation, they can be known as effective teachers.

Teacher 36 noted that:

Reflective teaching, whatever definition we assign to it, takes place in companionship with teaching strategies and methods. Students regard certain methods as better than others. They do not think about robustness of theories behind teaching methods used by their teachers. They judge methods based on their own understanding.

In the perceptions of teacher 20:

Teaching and evaluating students are the key issues in teaching job. But we know that not all methods of teaching and assessment are equally influential. Teaching is not a one-size-fits-all job wherein a specific method works for all settings and all students. Each context calls for a specific method. What makes teaching successful is the utilization of appropriate teaching methods. Moreover, teachers should use appropriate methods to evaluate students' knowledge.

6. Thinking skillfully

Thinking skillfully, as a theme extracted from the data, is reflective of the issue that teachers are reflective when they can think skillfully in different situations.

Teacher 31 stated that:

A teacher should think about problems and challenges they face in teaching. This requires a high intelligence. Technical thinking is not possible without intelligence. Intelligence increases the level of teaching success.

Teacher 29 said that:

English teachers should use their mentality dexterously in different aspects of teaching. As a demanding work, teaching English needs thinking skill. There are

various unexpected things in teaching dealing with which is not practical without high thinking ability.

Teacher 6 noted that:

We are busy with a job whose main part is mental. Accordingly, we should think competently. There are various unexpected things in teaching dealing with which is not practical without proper thinking ability.

7. Thinking critically

According to this theme, teachers should be capable of thinking critically.

According to teacher 19:

Critical thinking is a feature of good teachers. Teachers, I think, should not follow and accept everything. They should criticize problematic activities and try to change them. Criticality is an art for teachers.

From the view of teacher 46:

Students should be educated in a way that can express their own ideas in the society. To do so, their teachers should teach them critical thinking. To teach critical thinking, teachers themselves should think critically.

Teacher 30 admitted that:

If teachers can question the existing issues, they will be more successful. It is true that governments do not like questioning, but we should accept the power of it. It is criticizing that makes you powerful. If teachers do not criticize, they are nothing but confirming with no power.

8. Thinking creatively

The perception expressed by this theme is that teachers should think in creative ways.

Teacher 14 said that:

It is necessary for teachers to see things creatively. This eventually opens new ways for them in teaching, solving the problems, and so on. In some cases, thinking like

others do not work. It is a good strategy to think differently.

As perceived by Teacher 47:

You know these days, students have considerable differences with students in the past. They are more intelligent. They like novelty. In such situations, teachers are required to think in novel ways.

Teacher 33 illustrated that:

Teachers should try new ways of thinking to see whether they are effective or not. Old thinking may not be effective in all scenarios teachers are faced. Teachers should resort to new thinking ways to find the best ways to teach.

9. Being verbally active

It is perceived from this theme that teachers should have a high verbal skill.

According to teacher 21:

Some jobs are very much reliant to verbal abilities. Teaching is among them. English teachers should speak well. They should be verbally competent to teach the materials clearly and fluently.

As stated by teacher 28:

Verbal skill plays a paramount role in teaching. I myself, when a student, had a teacher who was not that much knowledgeable. But he talked very well. I always taught that he was very knowledgeable. I want to highlight how much verbal skill is important for a teacher.

As put by teacher 17:

A teacher should be verbally skillful. All teaching activities are done through speaking. It is why speaking is significant in the success of teaching. Clarifying the issues for students is best done verbally. Fortunately, verbal skills are learnable and this is promising for teachers with low verbal abilities.

As teacher 44 perceived:

Although teaching goes beyond talking in class, we cannot ignore the dominance of

this ability. No matter what teaching methods are used by a teacher, he or she should teach by talking. Different types of intelligences are important in teaching. Verbal intelligence is one of these intelligence types with high importance in teaching.

10. Giving and receiving feedback from students

This theme shows that teachers should give feedback to students and receive feedback from them.

According to teacher 50:

Feedback is a concept all of us know and use in teaching. Teachers should make students aware of their strengths and weaknesses by corrective feedback. Without feedback, students are confused about their performance.

As stated by teacher 48:

An indispensable feature of reflective teachers is giving corrective feedback to students to inform them of their errors. Corrective feedback is a useful way to prevent students from making the same error again. They learn the erroneous things and do not use them again. Besides, teachers should also seek feedback from students about their teaching quality. Students see problems which teachers may not.

As perceived by teacher 37:

Teachers should seek to upgrade their teaching reflectivity by asking the students to give them feedback. Some believe that it is a negative point to tell the students to comment on our teaching. But it is wrong. Students' feedback encourages us to progress in our job.

As teacher 9 perceived:

Giving feedback appropriately is a gain-gain game for both teachers and students. It improves learner's performance and at the same time, makes teacher vigilant to learner's level of performance. Teachers can use this strategy in an attempt to increase their teaching reflectivity.

11. Evaluating one's own teaching

This theme states that teachers should self-evaluate their performance.

According to teacher 40:

Teachers ought to evaluate their teaching problems and shortcomings. Inattention to one's shortcomings reduces the teaching quality in long run. Surveying the students is one way to do this. There are other ways to do this, including peer evaluation.

As stated by teacher 38:

Reflecting about one's teaching is a must for teachers. Teachers who regard themselves as free and independent from evaluation do not experience improvements in their working life. Evaluation of oneself is a way to guarantee improvement in the profession.

As perceived by teacher 46:

Regular self-assessment through various techniques including asking from colleagues, students, and even parents of students, can enlighten teachers about their small or big faults. It also reveals teacher achievements. Anyway, teachers who are reflective try to assess their performance.

12. Making appropriate modifications in one's own teaching

According to this theme, teachers should modify their teaching appropriately.

According to teacher 13:

A disadvantage of many teachers is that they are fixed in their teaching. For instance, they follow the same teaching method for years. This makes them look boring. Change should not be ignored. Successful teachers are those who seek revision in different dimensions of their teaching.

As stated by teacher 30:

If teachers do not make changes in their class management, teaching methods, dressing style, and other things, their class is turned into dark rooms devoid of motivation. Students do not like boring classes.

As perceived by teacher 43:

A teacher should be able to modify his usual way of doing things. Being accustomed

to routine procedures is a debilitating factor in teaching job. Instead of sticking to routine things, teachers are better to utilize new methods in teaching. When teachers attempt to remain up to date, naturally, their reflection in teaching is enhanced.

As teacher 49 suggested:

We Iranian people are resistant to change. We should forget this trait in whatever possible way. Students compare us with other teachers, discuss about us with their mates in other places, and expect us to be like new generation of teachers. We should modify our teaching; otherwise, we are nothing but old teachers who are stuck in 50 years ago.

Then, through merging the above themes emerged from the interviews, the following model of reflective skills for Iranian EFL teachers was formed (Figure 1). As it is depicted in the Figure 1, the emerged model of reflective skills for Iranian EFL teachers consists of three main components as follows: Social skills, pedagogical skills, and transformative skills. Social skills consist of three sub-components, pedagogical skills consist of five sub-components, and transformative skills are composed of four sub-components. This model emerged directly from the participants' perceptions, aligning with the grounded theory approach.
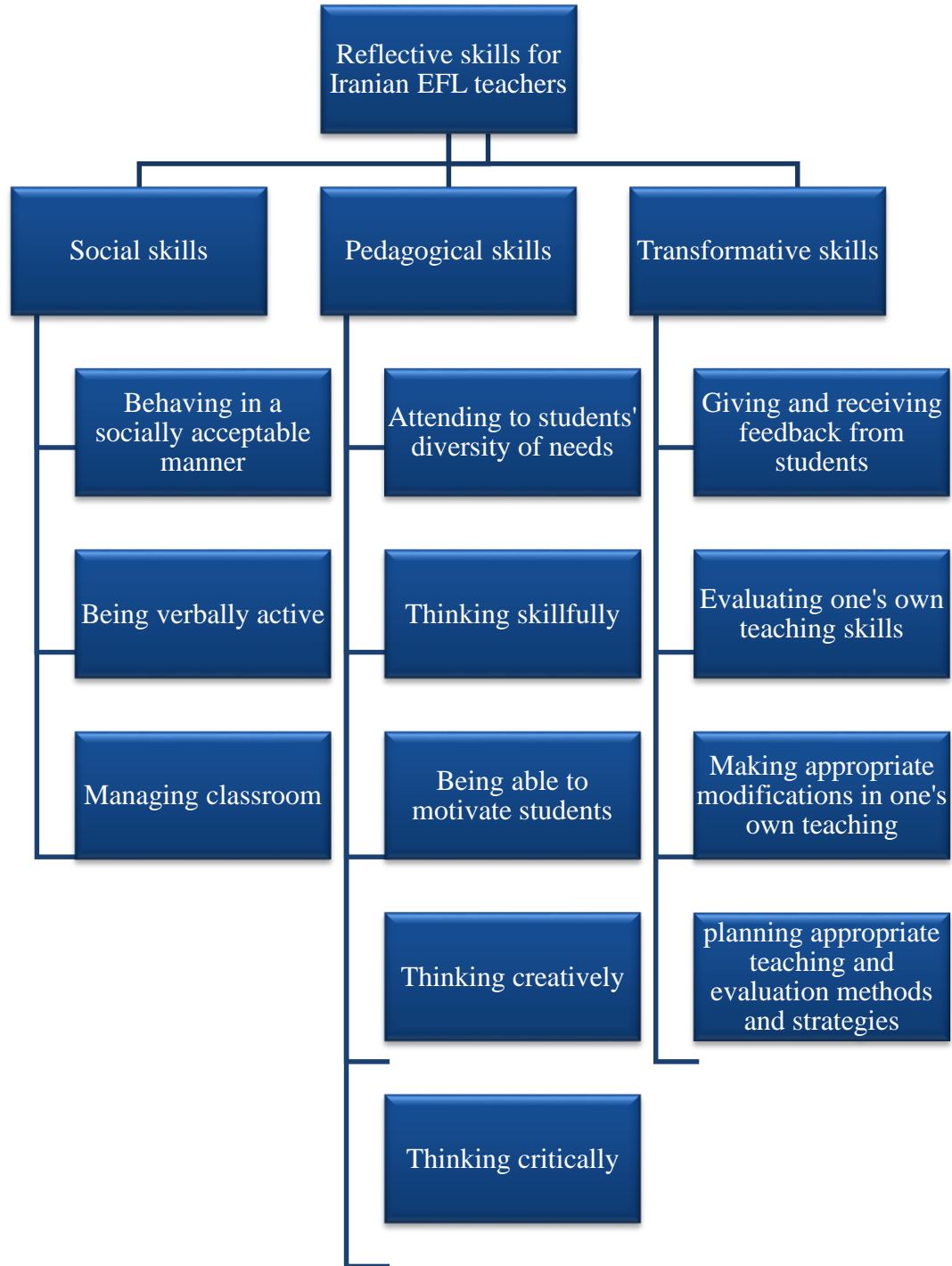
Figure 1.

The *Model of Reflective Skills for Iranian EFL Teachers*

      To calculate the reliability of the emerged model, the reliability of the questionnaire had to be checked as stated before. To this end, Cronbach's alpha test was run whose results are indicated in Table 1.

Table 1.

Cronbach's Alpha Coefficient for the Questionnaire

Questionnaire of Reflective Skills for Iranian EFL Teachers	Number of items	Alpha coefficients'
Behaving in a socially acceptable manner	5	0.73
Being able to motivate students	5	0.71
Managing classroom	5	0.70
Attending to students' diversity of needs	5	0.69
Planning appropriate teaching and evaluation methods and strategies	5	0.68
Thinking skillfully	5	0.59
Thinking critically	5	0.65
Thinking creatively	5	0.75
Being verbally active	5	0.72
Giving and receiving feedback from students	5	0.61
Evaluating one's own teaching	5	0.69
Making appropriate modifications in one's own teaching	5	0.74
Total scale	60	0.81

As shown in the Table 1, the reliability index of the questionnaire (and consequently the developed model of reflective skills for Iranian EFL teachers) is .81. Next, to check the validity of the developed model of reflective skills for Iranian EFL teachers, the collected data through the questionnaire was exposed to EFA using SPSS. In so doing, to conduct a preliminary study on the factor structure of the questionnaire, EFA using Principal Components Analysis with Varimax rotation was used. In addition, parallel analysis script was used to determine the optimal number of factors. Bartlett test was used to evaluate the sphericity assumption and Kaiser-Meyer-Olkin (KMO) test was used to evaluate the Adequacy of content sampling. In Table 2, the results of Bartlett and KMO tests are presented.

Table 2.

The Results of Bartlett and KMO

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.67
Bartlett's Test of Sphericity	Approx. Chi-Square	5842.39
	df	1968
	Sig.	0.0001

As it can be seen in Table 2, the Bartlett's Test of Sphericity is significant at the 0.0001 level. The value of KMO is 0.67. The above-mentioned results are indicators of the suitability of the data that has been collected to validate the instrument (KMO is greater than 0.60, and the Bartlett's Test of Sphericity is significant). In the second step,

the optimal number of factors was determined using parallel analysis. The results are presented in Table 3.

Table 3.

The Results of Parallel Analysis

Component number	E.O	M.E.R	Decision
1	<u>7.96</u>	7.18	Accept
2	<u>5.71</u>	5.12	Accept
3	<u>4.38</u>	4.01	Accept
4	<u>3.70</u>	3.64	Accept
5	<u>3.55</u>	3.32	Accept
6	3.20	2.89	Accept
7	2.95	2.84	Accept
8	2.76	2.51	Accept
9	2.63	2.37	Accept
10	2.44	2.19	Accept
11	1.75	1.37	Accept
12	1.40	1.13	Accept

E.O = the eigenvalues of original data. M.E.R = the mean eigenvalues of random data

As shown in the Table 3, all 12 sub-components have eigenvalues exceeding the mean eigenvalues derived from random data, indicating that the optimal number of factors is 12. Consequently, a 12-factor solution was applied using Principal Components Analysis with Varimax rotation. The results of the exploratory factor analysis are presented in Table 4.

Table 4.

The Results of Exploratory Factor Analysis

Sub-components, and Eigenvalues of related items											
1		2		3		4		5		6	
q1	0.46	q6	0.65	q11	6	q16	0.71	q21	0.37	q26	0.27
q2	0.39	q7	0.54	q12	0.48	q17	0.24	q22	0.66	q27	0.50
q3	0.52	q8	0.37	q13	0.40	q18	0.39	q23	0.53	q28	0.28
q4	0.61	q9	0.44	q14	0.51	q19	0.50	q24	0.22	q29	0.63
q5	0.38	q10	0.60	q15	0.57	q20	0.47	q25	0.25	q30	0.60
Sub-components, and Eigenvalues of related items											
7		8		9		10		11		12	
q31	0.47	q36	0.39	q41	0.30	q46	0.50	q51	0.45	q56	0.33
q32	0.38	q37	0.44	q42	0.66	q47	0.29	q52	0.39	q57	0.48
q33	0.21	q38	0.50	q43	0.49	q48	0.43	q53	0.48	q58	0.50
q34	0.55	q39	0.63	q44	0.46	q49	0.64	q54	0.25	q59	0.39
q35	0.48	q40	0.54	q45	0.38	q50	0.47	q55	0.63	q60	0.65

1: Behaving in a socially acceptable manner, 2: Being able to motivate students, 3: Managing classroom, 4: Attending to students' diversity of needs, 5: Planning appropriate teaching and evaluation methods and strategies, 6: Thinking skillfully, 7: Thinking critically, 8: Thinking creatively, 9: Being verbally active, 10: Giving and receiving feedback from students, 11: Evaluating one's own teaching, & 12: Making appropriate modifications in one's own teaching.

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

As it can be seen in the Table 4, 52 items (all items excluding items 17, 24, 25, 26, 28, 33, 47 and 54) have suitable a factor loading on their corresponding factor. These 12 factors explained 54 % of total variance. This shows that the questionnaire (and consequently the developed model of reflective skills for Iranian EFL teachers) enjoys construct validity.

Then, the quantitative data gathered through the questionnaire were exposed to CFA using AMOS 24 statistical package. To this end, the obtained 12 factor solution was examined by confirmatory factor analysis (CFA) available in the AMOS24 package. The result of confirmatory factor analysis using Maximum likelihood estimation method is presented in Figure 2.
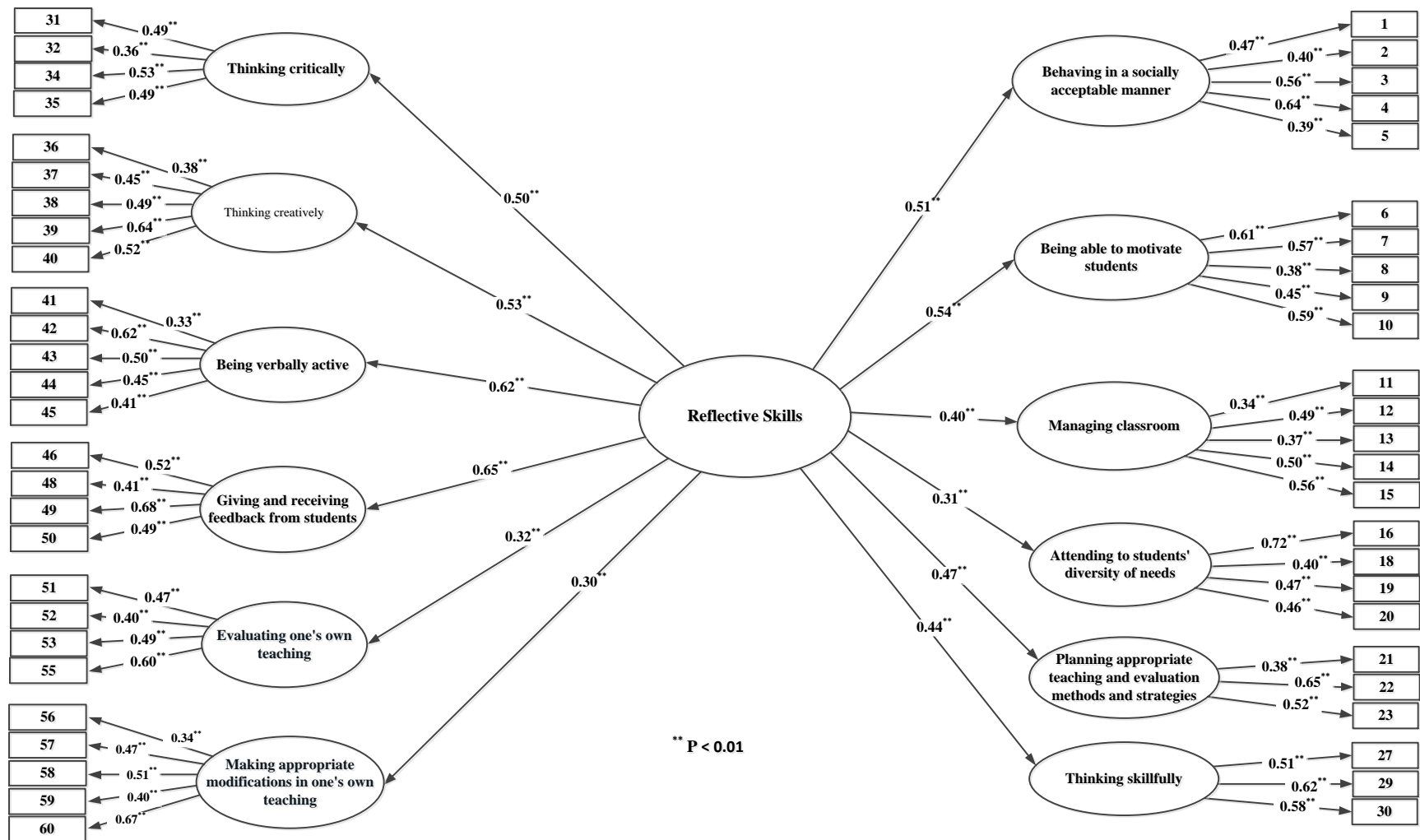
Figure 2.

The Results of Confirmatory Factor Analysis

As it can be seen in the Figure 2, item number 17 from factor 4, items number 24 and 25 from factor 5, items number 26 and 28 from factor 6, item number 33 from factor 7, item number 47 from factor 10 and item number 54 from factor 11(in sum 8 items) were excluded from questionnaire due to factor loading lower than 0.30. The remaining items exhibit acceptable factor loadings, all significant at the 0.01 level. The model's goodness of fit was assessed, and the most common fit indices are summarized in Table 5.

Table 5.

Fit Indices of the Confirmatory Factor Analysis

	X^2/df	TLI	CFI	GFI	AGFI	RMSEA	PCLOSE
Fit indices	2.41	0.92	0.95	0.94	0.90	0.04	0.67
Acceptable Fit indices	< 3	> 0.90	> 0.90	> 0.90	> 0.90	< 0.08	> 0.05

As it can be seen in the Table 5, the questionnaire (and consequently the developed model of the reflective skills for Iranian EFL teachers) has an acceptable fit index.

5. Discussion

To interpret the findings, some sub-components of this model (i.e., evaluation of one's own teaching, making modifications in one's own teaching, and thinking skill) have equivalents in Shulman's (1987) model of pedagogical reasoning (i.e., reflection, transformation, and evaluation). Shulman's (1987) model which is limited to pedagogical reasoning, represents how teachers can develop their practical knowledge through reflection on what is to be taught, transforming it and evaluating their transformation. In addition, the sub-components of managing classroom and planning appropriate teaching and evaluation methods and strategies could be placed within the component of instruction in Shulman's (1987) model since instruction has been described as the activities associated with doing teaching and classroom management.

Apparently, regardless of context of teaching, reflective teachers move through similar kinds of skills. These skills can somehow be taken as parallel to the phases which are passed by teachers to reach effective teaching. They use their knowledge types to plan and prepare for practice (pre-active phase). They use their knowledge and skills to manage classroom procedures and instruction (interactive phase). They reflect on their

practice and make evaluations based on receiving feedback from different sources to fulfill their professional responsibility that would lead to effective reflective teaching (post-active phase) (Akbari et al., 2010).

Furthermore, the sub-components of motivation and providing feedback are supported in a study conducted in the context of Iran by Mehrpour and Moghaddam (2018) who proposed classroom management, self-assessment, and motivation as among the main categories of teaching effectiveness. This is also in line with Danielson's (2013) framework of teaching where she addressed management components and elements; namely, 'management of instructional groups', 'management of materials and supplies', management of student behavior, and management of transitions as the building blocks of success in teaching. Moreover, the researcher found empirical support for the sub-component of behaving in a socially acceptable manner in the ideas of Pihlström and Sutinen (2012) and Tsui (2003) who agreed on teachers' need to be socially accepted as the resource of knowledge.

All in all, the findings of this study are consistent with the studies by Demirkasimoglu (2010), Khanzadeh Darabi and Memari Hanjani (2024), Mork et al. (2021),Toledo et al. (2017), and Trevisan et al. (2021) which referred to pedagogical knowledge components as influential factors in teaching profession. Also, congruent with this study, Li (2019), Lloyd (2019), Palmer et al. (2005), Wermke et al. (2018), and Yazdanpanah and Sahragard (2017) found creative thinking and classroom management skill as important components of teaching career. Moreover, similar to the present study, in the studies by Fuller (2016), Ibad (2018) and Kell (2019), personality features of EFL teachers including thinking abilities, and motivational skills have been identified as effective on their professional practice.

Accordingly, it can be interpreted that the proposed model in the present study significantly accounts for reflective skills of Iranian teachers. Given that most of the components and sub-components of the developed model are supported empirically by the previous studies as enumerated above (Fuller, 2016; Ibad, 2018; Kell, 2019; Li, 2019; Lloyd, 2019; Mehrpour & Moghaddam, 2018; Palmer et al., 2005; Shulman,1987; Wermke et al., 2018; Yazdanpanah & Sahragard), one may take the model components

and sub-components as essential characteristics of reflective teachers.

In sum, the accomplished results revealed multidimensionality of reflective teaching. More importantly, the findings corroborated that reflective teaching is a complex notion encompassing several factors. It should be noted that although the developed model aligned with Shulman's (1987) model of teacher pedagogical reasoning in many aspects, some sub-components of the model were specific to this study. This is not a negative point and can add to the enrichment of the study. More specifically, the new sub-components add to the breadth and scope of the studies touching reflectivity in EFL teaching and unpacking unexplored features of reflective teaching. It is possible that new sub-components are rooted in the difference in the context of participants' practice as context plays an important role in teachers' reflective teaching.

6. Conclusion

It is concluded that reflective practices can be represented in social, pedagogic and transformative teaching areas. Based on the findings of this study, it can be argued that EFL teachers can experience teaching as a reflective practice. Therefore, resorting to the practices related to these three areas helps them become reflective teachers.

Also, it can be concluded that since the emerged model of reflective skills for Iranian EFL teachers was approved by Iranian EFL teachers (As revealed by the results of EFA and CFA), it can be put into application in related fields including teacher education and preparation programs. In this way, student teachers and in-service teachers will be (more) equipped with the necessary (but probably not sufficient) skills for reflective EFL teaching. This makes them empowered to teach more reflectively.

The outcomes of the present study can enlighten the practice and mindset of various stakeholders in the realm of language education, including policymakers, teacher educators, authorities in charge of recruiting teachers, to take appropriate measures to increase pre and in-service EFL teachers' reflectivity and, as a result, encourage the implementation of the emerged model of reflective skills of Iranian effective teachers in the Iranian EFL contexts. Firstly, given that teaching quality is a fundamental component

of an efficient education system, language policymakers can benefit from the findings of this study. They can promote the enhancement of EFL teachers' reflective practices by providing continuous training to teachers on reflective teaching.

Additionally, those responsible for designing curricula and content for EFL teacher preparation programs may recognize the added importance of incorporating reflectivity-oriented training courses. It is essential for them to incorporate more reflection-based elements into teacher education materials so that teachers recognize the importance of reflective teaching more than before.

Furthermore, the findings of the present study could guide teacher recruitment committees by highlighting the importance of reflective skills as a key criterion for selecting reflective EFL teachers. Incorporating these skills into the recruitment process can help ensure that candidates possess the qualities necessary for reflective teaching and continuous professional growth. In the same vein, the institute managers should choose their teachers wisely, selecting those who obtain a sufficient level of reflectivity. Also, the language institute managers, through holding reflective teaching workshops, courses, and training sessions, would increase their teachers' reflectivity-oriented concepts, in turn enhancing teachers' more just performances in ELT classes.

The findings also show the necessity for education reforms in the Iranian ELT system, advocating for a shift towards a more reflection-based approach rather than a system-directed, top-down model. This shift would encourage teachers to assume a more reflective role in managing various aspects of their professional practice.

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Designing and validating…

Appendix
Researcher-Made Questionnaire

Dear respondent! Please fill the next questionnaire patiently. Show the amount of your agreement with each statement ticking a cell from (1) strongly disagree, (2) disagree, (3) neutral, (4), agree, to (5) strongly agree.

Number	Sub-scales	Items	1 strongly disagree	2 disagree	3 neutral	4 agree	5 strongly agree
1	behaving in a socially acceptable manner	Teachers should behave well socially					
2		Teachers should have a good behavior in social aspects					
3		Teachers' behavior should be prestigious					
4		Teachers should know that their behavior reflects their character and personality					
5		Teachers should act in a socially good and standard way					
6	being able to motivate students	Teachers should be able to encourage students' motivation					
7		Teachers should motivate students in different ways					
8		Teachers should use different motivational techniques					
9		Teachers are needed to make students motivated					
10		If teachers can achieve the goal of learner motivation, students can learn English more easily					
11	managing classroom	Classroom management is a big art for teachers					
12		Classroom management is a concern for both novice and experienced teachers					
13		There exist different models of classroom management which can make teaching easier for teachers					
14		Teachers should know how to manage the classroom effectively					
15		If classroom is well managed, higher teacher effectiveness can be expected					
16	attending to students' diversity of needs	Teacher effectiveness cannot be separated from fulfillment of students' needs					
17		This is teachers' duty to recognize needs of students to fulfill them					
18		Students have their own needs and these needs have provoked them to be present in English classes. Teachers should be aware of these needs and attempt to meet them					
19		Teachers' success is tied to students' needs					
20		Students, like any group in the society, have their own needs which are worth probing by teachers					
21	planning appropriate teaching and evaluation methods and strategies	Teaching or evaluation methods are the main parts of English teaching job					
22		Effective teaching, whatever definition we assign to it, takes place in companionship with teaching strategies and methods					
23		Teaching and evaluating students are the part and parcel of teaching job					
24		What makes teaching success is the utilization of appropriate teaching methods					

25		Teachers should use appropriate methods to evaluate students' knowledge					
26		Thinking appropriately in different conditions requires a high level of aptitude in teachers					
27		Teaching and thinking are intermingled					
28	thinking skillfully	A teacher should think about problems and challenges to which they face in teaching					
29		English teachers should use their mentality dexterously in different aspects of teaching					
30		There are various unexpected things in teaching dealing with which is not practical without high thinking ability					
31		Critical thinking is a feature of good teachers					
32		Teachers should criticize problematic affairs and try to change them.					
33	thinking critically	Criticality is an art for teachers					
34		To teach critical thinking, teachers themselves should think critically					
35		If teachers can question the existing matters, they will be more successful					
36		It is necessary for teachers to see things creatively					
37		Teachers are required to think in novel ways					
38	thinking creatively	Teachers should try new ways of thinking to see whether they are effective or not					
39		Old thinking may not be effective in all scenarios with which teachers are confronted					
40		Teachers should resort to new thinking ways to find the best ways to teach					
41		Some jobs are closely interrelated to verbal abilities. Teaching is among these jobs					
42		English teachers should speak well					
43	being verbally active	Verbal skill plays a paramount role in teaching					
44		A teacher should be verbally proficient. All teaching activities are done through speaking					
45		Verbal intelligence is one of these intelligence types with high importance in teaching					
46		Feedback is a concept all of us know and use in teaching. Teachers are to make students aware of their strengths and weaknesses by corrective feedback					
47		An indispensable feature of effective teachers is giving corrective feedback to students to inform them of their errors					
48	giving and receiving feedback from students	Corrective feedback is an effective way to prevent students from commitment of the same error					
49		Teachers should seek to upgrade their teaching effectiveness by asking the students to give them feedback					
50		Giving feedback appropriately is a gain-gain game for both teachers and students. It improves learner's performance and at the same time, makes teacher vigilant to learner's level of performance					
51	evaluating one's own teaching	Teachers ought to evaluate their teaching problems and shortcomings					
52		Reflecting about one's teaching is a must for teachers					

53		Regular self-assessment through various techniques including asking from colleagues, students, and even parents of students, can enlighten teachers about their small or big faults					
54		teachers who are effective try to assess their performance					
55		Evaluation of oneself is a way to guarantee improvement in teaching work					
56	making appropriate modifications in one's own teaching	Successful teachers are those who seek diversity in different dimensions of teaching					
57		If teachers do not make changes in their class management, teaching methods, dressing style, and other things, their class is turned into dark rooms devoid of motivation					
58		A teacher should be able to modify his usual way of doing things. Being accustomed to routine procedures is a debilitating factor in teaching job					
59		Teachers should modify their teaching otherwise they are nothing but old teachers who have remained in 50 years ago					
60		When teachers attempt to remain up to date, naturally, their effectiveness in teaching is enhanced					

Developing spiritual citizenship curriculum model in the second secondary school

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Abstract

In recent years, many educational systems have paid attention to spiritual citizenship education as one of the most fundamental methods of educating responsible citizens. The purpose of the current research was to provide a model of the curriculum of the spiritual citizen in the second secondary school. To serve that end, a qualitative approach and Grounded theory method were used. The participants were selected based on purposive sampling (snowball) method. Data were collected through semi-structured interviews with 21 professors and experts including 12 males and 9 females, aged between 41 and 62, hoding PhD degree with 6 - 25 years of experience, who had valuable experiences and research related to the research topic. The collected data were analyzed in the three main stages of open, axial and selective coding. Interview data analysis revealed five main categories which affect spiritual citizen model; namely, causal factors, underling factors, intervening factors, strategies, and advantages. The findings suggest that the proper implementation of spiritual citizenship education can lead to development of responsible, informed, and accountable citizens in society.

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1. Introduction

Human is a social being due to his need, perfectionism and personality structure. Indeed, all humans are affected by social conditions to a significant extent and they can communicate with others through their existential development and influence the society and their personalities. Also, human is a responsible being who is responsible first to God and then to others. In line with human's responsibility towards others, one of his most important roles in society is the role of citizenship.

Considering the changes and challenges of life, in a world that is constantly changing, the need for citizenship education is very important (Sharifi & Mirshah Jafari, 2015). For the transformation and adaptation of humans in the society, we must teach true values, and the greatest task of the rulers of any society is to provide a basis for the possibility of flourishing the abilities and the spiritual evolution of the society, that is, moving towards human values (Naqibzadeh, 2017). Despite this, there are different citizenship behaviors in people in the society which are influenced by the individual's perception of citizenship. The fact that every person in the society has different perceptions of citizenship depends on the social and political realities and scientific attitudes, belief, identity of people, and their spiritual and moral values (Taniguchi & Nakano, 2017; Vogelers 2011; Cohen, 2019).

Citizenship is geographically related to the whole world, and the concept of citizenship has expanded from the political level to the social and cultural level. In countries that have internal disputes and conflicts, citizenship has received more attention (Niens & Reilly, 2014, cited by Vogelers, 2017). Citizenship is a set of duties, rights, assignments, responsibilities, social and political obligations, sense of belonging and social membership for serious and active participation in the economic, political, social and cultural spheres of society (Nick Warez & Afrasiabi, 2016). In observing the ethics of citizenship in the society, sometimes people respect the principles of citizenship due to compulsion and short-term interests. In many cases each person thinks about individual interests instead of national interests, which ultimately leads to chaos. In such a situation, in order to prevent chaos in the society, it is necessary for governmental agencies to supervise the performance of people. Performing citizenship duties and active

participation in the society depends on the commitments and spiritual beliefs of people. Citizenship has been closely related to the development of ethics due to its influence in the society (Voglers, 2017). For the development of morals and commitment of the individual in the society, we can refer to the spiritual citizen (Millar et al, 2024). Since attitudes are based on the foundation of systematic knowledge and awareness, citizenship education has also been examined based on different approaches. Among these, the role of celestial religions, religions, sects and their approaches is very important (Shamshiri, 2014).

2. Review of the Related Literature

In the spiritual citizen, a person does not oblige herself or himself to follow the law out of fear. Rather, truthfulness, trustworthiness, and adherence to moral values obligates a person to follow the rules and adher to them by his own will (El Shibli & El Nabulsi, 2017). In spiritual citizenship, people tend to internalize the motivation to comply with the rights and duties of citizenship so that they can maintain a peaceful and stress-free life with each other and with the environment and train the future generation (Riabovol, 2025). This will minimize the costs of the society and the city; otherwise, such costs will constantly increase to control the members of the community (Nikomram et al., 2010). A spiritual citizen provides a suitable social platform for a person's activity so that he can do everything for his progress.

Schools and their curricula play a decisive role in the application of the spiritual citizen model in life among all other institutions in spiritual education. In other words, schools have a direct role in providing opportunities for the development of insight and desire and improving the skills and functions necessary for spiritual life (Yarmohamedian et al., 2013). Of course, as in Iran the curriculum is derived from the moral system of Islam, God has a central role and other domains are defined based on this role. The main approach of moral education in the official and public education system of Iran is of a virtuous religious nature, which is evident in the objectives of the Supreme Council of Education (Azadmanesh & Hosseini, 2014). However, these objectives should be more realistic and modified according to the mental development and experiences of students.

Unfortunately, these objectives are mostly idealistic and most of the time are not practical in society (Azadmanesh & Hosseini, 2014). One of the reasons is that the spirituality is a vague, complex and all inclusive issue and has various dimensions, topics and concepts (Heydari et al., 2014; Yarmohamedian et al., 2013). Also, there is no curriculum available to develop characteristics such as critical thinking, accountability, fighting for injustice, understanding each other, cooperation and participation, respecting traditions and cultures, as well as to raise international law awareness and respect for race and religions in students in an integrated and comprehensive way (Butcher, 2017).

One of the important factors in raising a spiritual citizen is having spiritual literacy, which deepens our understanding of spiritual texts, behaviors, customs and beliefs that can help people to realize the need to respect different people's opinions (Aka Mahmoud, 2018). Copley (2008) and Conroy et al. (2015) argue that teacher training is vital for spiritual education and teachers are one of the main factors in the success of any spiritual education program (Jafrali Zavor, 2019). In fact, one of the important factors that hinders the proper education of students in the field of spiritual citizenship is the existence of ineffective trainers and teachers (Thamrin et al., 2024). Other factors that are harmful in religious education are factors such as duality of the teacher's behavior as a role model with the contents of religious books, separating the religion curriculum from other textbooks and limiting it to only teaching superficial content instead of internalizing religious beliefs, and not integrating the learned materials in social life (Kartiwi, 2024).

In general, paying attention to religious education in the field of education is an undeniable necessity. Although such necessity is accepted as the main and important task of education in our society, the results of numerous research conducted in our country indicate that there are defects and weaknesses in the field of religious education and the education system has not been very successful in its mission in the field of religious education (Islamian, 2017). Citizenship and spirituality trainings in our education system are unclear and without any clear purpose. In textbooks, most of the definitions and repetitive and cliché materials are passed on to the students. This has caused the accumulation of information and their non-acceptance by the students (Hazeri & Akhgar, 2013).

Further, there are some evidence of the relative weakness of citizenship, especially in the field of responsibility and participation of citizens in obtaining citizenship rights in Iran (Mirfardi, 2014). Limited social participation of citizens, especially in official and public arenas (Mousavi, 2011), minimal political participation (in the sense of simply voting) (Jalaipour, 2012), high level of social indifference, self-righteous individualism and lack of civil commitment (Ghafari, 2013; Mohsani Tabrizi, 2012), insignificant amount of time Iranians spend on voluntary and charitable activities (an average of two minutes a day according to the report of the Iranian Statistics Center in spring 2014) and people's ignorance of their citizenship duties are negative issues which confirm the claim that spiritual citizen education is necessary in Iran (Azadmanesh & Hosseini, 2014).

Unfortunately, despite the importance and necessity of identifying spiritual citizen training, this issue has not been addressed seriously and effectively in our educational and academic context (Mousavi & Mubaraki, 2016). For example, littering and polluting the environment and not complying with driving rules that lead to traffic problems and increasing accidents, late payment of bills and insurance premiums and tolls and not complying with the rights of urban transport organizations are cases of non-compliance citizenship in the society, which requires continuous monitoring by government agencies and incurring costs for the government. Any violation and ignoring the rules and customs of urbanism and not respecting the rights of others will fuel tensions, violence and many social, economic and cultural adversities. (Nick Verz & Afrasiabi, 2016). Therefore, dealing with spiritual citizenship can be the key to solving many of the above problems.

The reason for choosing secondary education for citizenship education is that secondary education is very important because of its essential role in the formation of personality and education of young people and its impact on their participation in the development of society. The future of the society's life is determined at this stage and the students' productivity comes from the quality of this course. Regarding the spiritual citizen, various books and writings have been published in Iran and outside of Iran, each of which presents a specific aspect of it. But the sources rarely contain the topic of citizenship education from a religious point of view, and so far the curriculum model of a spiritual citizen has not been designed in Iran. For example, in a study by Akhgar and Khalili (2015) regarding the components of citizenship education from the perspective of the Qur'an and

Sunnah, they did not consider its educational aspect in the education system. Mehr Mohammadi (2013), Qaltash et al. (2013) and Ahaderi and Khalili (2015) did not pay attention to religious trainings in the field of citizenship education. Also, in a research by Yarmohamedian et al. (2013), he studied the approaches of spiritual education in three countries, Australia, Turkey, and Japan, and the dimension of citizenship was not discussed. In international studies such as those conducted by Chi-Kin Lee (2020) and Mahipalan (2018) the spiritual dimension of citizenship education have not been mentioned.

Therefore, the researchers felt necessary to consider spiritual aspects in the current qualitative study. In fact, the aim of the research was to design a model for the spiritual citizenship of students hoping to provide solutions for social anomalies caused by moral problems in order to promote spiritual citizenship behavior in the society in the second secondary school. Hence, this research was an attempt to develop a model of the spiritual citizen curriculum in secondary school. To serve that end, the following research questions were formulated:

- What are the causal factors involved in the spiritual citizen curriculum model?
- What are the underling factors involved in the spiritual citizen curriculum model?
- What are the intervention factors involved in the spiritual citizen curriculum model?
- What are the strategies used in the spiritual citizen curriculum model?
- What are the advantages of the spiritual citizen curriculum model?

3. Methodology

In the current qualitative research, the grounded theory method was used. The participants of the study included 21 professors and experts; 12 males and 9 females, aged between 41 and 62, hoding PhD degree with 6 - 25 years of experience in teaching and researching in a wide range of relevant educational desciplines. In order to answer the research questions, semi-structured interviews were conducted with research samples (professors, experts,) who had valuable experiences and research related to the research topic. The process of data collection continued until the theoretical saturation

stage, and after 21 interviews, saturation took place. The statistical population of this research was made up of those experts and professors who were knowledgeable in spiritual citizenship, had conducted research in this field and could provide valuable information to the researchers. Non-random chain sampling (snowball), which is a type of targeted sampling, was used in this study.

Considering the reliability and validity of the interview prompts, the questions were modified and approved by 6 expert professors in the relevant field after being initially designed. Before starting the interviews the written consent was obtained from the participants and they were assured that no changes would be made to their opinions and their identities would remain confidential. To record the interviews, all conversations were audio recorded. Then, the recorded interviews were carefully listened to by one of the researchers and transcribed verbatim. After the interview were transcribed, the "member check" method was used to confirm the validity of the interview data. In this way, the interview transcripts were sent to the participants again to confirm the accuracy of the content. The interviews continued until the saturation of data (Abadi, 2015). In this regard, the samples of this research were formed by 18 experts and professors of curriculum development.

The data analysis of this research was done according to the guidelines of Strauss and Corbin (1390). This method includes three main stages of open coding, axial coding and selective coding. In the open coding stage, key words or words with a high semantic load were extracted. In the axial coding stage, duplicate codes were removed and codes that had a common meaning were placed in the same category. In the selective coding stage, the codes obtained in the axial coding stage were examined in terms of semantic sharing. Then, they were categorized in the form of categories. In the current research, 108 codes were emerged in the open coding stage, and 28 and 15 codes were formed in the axial and selective coding stages, respectively. It is necessary to note that in order to validate the findings from coding and analysis, the review criteria of the researcher and independent coders were used (Creswell and Clark, 2007). For this purpose, the researchers who were responsible for writing the current research carefully checked and coded the primary raw data. The findings were provided to 5 other experts who were active in the field of spiritual citizenship to check the validity and reliability of the coding.

4. Findings

In order to answer the research questions, after operationalizing a total of 21 interviews with the research participants who were expert professors and directly related to the subject, the collected data were analyzed in the form of open coding. Doing the open coding process on these data led to the achievement of many concepts, which the researcher tried to reduce and categorize based on similarities and conceptual commonalities. The results of this coding are presented in the following tables:

- RQ 1. What are the causal factors involved in spiritual citizen curriculum model?

Table 1.

Causal Factors

Causal Factors	1. Attitude towards the current state of the spiritual citizen	1-1. The need to strengthen spirituality
		1-2. Attention to spirituality in lifestyle
		1-3. The need for tangible and structured spiritual training
		1-4. The emergence of various problems resulting from lack of spirituality
	2. The emergence of multiple literacies	2-1. The importance of acquiring spiritual literacy
		2-2. Attention to spiritual knowledge in everyday life
		2-3. Spiritual intelligence

1.1 The need to strengthen spirituality: Attention to and strengthening spirituality is one of the necessities of life in the present era. One of the participants stated that:

Unfortunately, in the present era, people are severely attacked by cultural attacks and propaganda bombardment, and this has led to deviations in people's lives, so strengthening spirituality can act as a barrier against these attacks. (Participant No. 3)

1.2 Paying attention to spirituality in lifestyle: Lifestyle in the modern world has undergone fundamental changes, which has doubled the need for awareness in this field. One of the participants noted that:

What we are witnessing in this century is the promotion of a lifestyle devoid of values. Unfortunately, the Western lifestyle is being introduced as the authentic lifestyle, and this has caused harm. Dealing with such a lifestyle requires gaining spiritual awareness. (Participant No. 13)

1.3 The need for tangible and structured spiritual training: Spiritual training must be provided in a systematic and effective manner. One of the participants argued that:

You cannot hope to strengthen spirituality in students with unfocused training. There needs to be a fundamental thought in this regard, and the training needs to take a scientific form and have a proper structure. (Participant No. 19)

1.4 The emergence of various problems due to lack of spirituality: The emergence and severity of social harms in society is an indication of the weakening of spirituality. One of the participants mentioned that:

There are increasing types of mental, psychological, and social harms in society, from divorce to depression, suicide, conflict, and so on. Well, when you find the root of these harms, you realize that most of the people involved in these problems have received proper spiritual education. We need to be able to equip our students with these skills in school. (Participant No. 5)

2.1 The importance of spiritual literacy: The concept of spiritual literacy has attracted the attention of many experts in the last decade. One of the participants stressed that:

If you study the international and comprehensive definitions of literacy, you will realize that one of the literacies that is emphasized is spiritual literacy. In fact, spiritual literacy is emphasized in line with other literacy such as media and health literacy, so we must act proactively in this area and educate students with high standards of spiritual literacy. (Participant No. 17)

2.2 Paying attention to spiritual knowledge in everyday life: Knowledge has various dimensions, and paying attention to it, especially in the field of spirituality is a necessity of the present era. One of the participants admitted that:

In the past, learning both math and science was very important, but the question is, will a student today be successful if he only knows math and science? In today's

complicated world, we need a student who, in addition to math, has the ability to understand and interpret values, beliefs, and convictions... (Participant No. 10)

2.3 Spiritual Intelligence: Paying attention to spiritual intelligence, along with other intelligences, has become a priority in today's world. One of the participants claimed that:

Fortunately, with the various definitions of intelligence that have been developed, it is no longer just the cognitive dimension and cognitive intelligence that are at stake, and things like spiritual intelligence have been approved by many experts and scholars as essentials of life in the current century. Therefore, schools should be able to have a program in this area and strengthen spiritual intelligence in students in a scientific manner. (Participant No. 14)

- RQ2. What are the underling factors involved in the spiritual citizen curriculum model?

Table 2.

Underling Factors

Underling Factors	3. The needs of students, parents, teachers and institutions	3-1. Involving in problems related to spiritual issues and students' need for knowledge in this field 3-2: Parents' demand for providing information and knowledge related to spirituality 3-3. Teachers' demand for cultivating knowledge related to spirituality in students 3-4. The need of various institutions and organizations for students equipped with up-to-date information and knowledge in the field of spirituality

3.1 Involving in problems related to spiritual issues and students' need for knowledge in this field: Involving in students in spiritual issues highlights the need for proper education in this field. One of the participants stated that:

High school students are at an age where they can easily understand and comprehend spiritual issues. On the other hand, adolescence is a sensitive period

in terms of spiritual matters, and some students may experience ambiguities and problems in their social lives due to their limited knowledge in this field. Therefore, teaching spiritual issues can be the key for solving many problems during this period. (Participant No. 19)

3.2 Parents' demand for information and knowledge related to spirituality: In the last decade, parents' attitude has changed from merely teaching some subjects to preparing students for a righteous life. One of the participants argued that:

Fortunately, parents no longer just want their children to learn English or be good at math, but they also want their children to be capable enough to live a healthy life in society, which is why parents demand for education related to spirituality. (Participant No. 2)

3.3 Teachers' demand for developing knowledge related to spirituality in students: Teachers are also among those who want to develop knowledge and skills related to spirituality in students. One of the participants acknowledged that:

With the increase in the level of knowledge and education among teachers on the one hand and their direct involvement with students' conditions, including personal, social, and psychological issues, on the other hand, teachers' tendency to provide information and spiritual education to students is increasing. (Participant No. 6)

3.4 The need of various institutions and organizations for students equipped with up-to-date information and knowledge in the field of spirituality: Today, most government institutions and organizations are looking for responsible and healthy citizens. One of the participants reported that:

If you look closely at society, you will realize that citizens with limited knowledge and skills in various fields, including spirituality, cannot properly benefit from the services of institutions and organizations. Therefore, cultivating spiritual literacy is an essential need for living in such a society and benefiting from the services of organizations. (Participant No. 18)

- RQ 3. What are the intervention factors involved in the spiritual citizen curriculum model?

Table 3.

Intervening Factors

Intervening Factors	4. Internal environment 5. External environment	4-1. Structural support from within the educational institution towards spiritual citizenship education 4-2. Dynamic atmosphere within the organization towards spiritual citizenship education 4-3: Developing spiritual citizenship education programs from within and relying on internal elements of education 5-1. Top-down view towards spiritual citizenship education without considering field realities 5-2. Externally-driven version of spiritual citizenship education without considering internal capacities of education 5-3. Facilitative and not interventionist attitude of society towards spiritual citizenship education

4.1 Structural support from within the educational institution towards spiritual citizenship education: Internal supports play a significant role in educating spiritual citizens. One participant admitted that:

> *If a school tries to educate spiritual citizens in the best possible way, but there is no proper planning at the organizational level and the existing structures do not support these programs, the desired results will undoubtedly not be achieved. As a result, the first step to implementing these things is to have a macro policy, then based on this macro policy, we can plan for each level, including high school.* (Participant No. 14)

4.2 Dynamic atmosphere within the organization towards spiritual citizenship education: Vitality and dynamism within an organization play an important role in educating spiritual citizens. One of the participants believed that:

> *The organizational environment within the school and the educational institution should be flexible enough to encourage spiritual citizenship education, so that*

creative suggestions in this regard are welcomed and any exclusion in the field of spiritual education is avoided. (Participant No. 8)

4.3 Developing spiritual citizenship education programs from within and relying on internal elements of education: Interventions outside the education system lead to the failure to implement imposed programs in the field of spiritual citizenship education. One of the participants mentioned regard:

One problem is that in the field of spiritual citizenship education, a number of pressure groups from outside the educational institution want to impose their own expectations on these programs. In such circumstances, teachers and administrative staff secretly disobey when implementing the program because they do not consider themselves involved in this program. (Participant No. 10)

5.1 Top-down view towards spiritual citizenship education without considering field realities: A one-sided view of spiritual citizenship education has been one of the main obstacles to implementing such programs. One of the participants remarked that:

Some people think that an important issue like educating spiritual citizens can be done by forcing and giving orders, but that is counterproductive. (Participant No.5)

5.2 Externally-driven version of spiritual citizenship education without considering internal capacities of education: Lack of attention to the internal capacities of education is another obstacle to educating spiritual citizens. In this regard, one of the participants stated that:

When the voices of teachers, students, and stakeholders are not heard in programs such as spiritual citizenship education, there is no doubt that the program will fail to succeed. We must pay attention to the internal capacities of education and creatively apply them in developing spiritual citizenship education programs. (Participant No. 11)

5.3 Facilitative and not interventionist attitude of society towards spiritual citizenship education: Society should be a facilitator of spiritual citizenship education, not an interfering factor. One of the participants stressed that:

Developing spiritual citizenship…

> *Unfortunately, the programs that are developed in the field of spiritual education are mostly based on the interventions of the society. In such circumstances, the desired results are not achieved and the programs remain useless. I think the best role that the society can play in this field is as a facilitator.* (Participant No. 11)

- RQ4. What are the strategies used in the spiritual citizen curriculum model?

Table 4.

Strategies

Strategies		
	6. Progressive Approach	6-1. Digestion and integration of spiritual citizenship education into curricula
	7. Regressive Approach	6-2. Use of new approaches in spiritual citizenship education
	8. Indifference Approach	6-3. Positive attitude towards spiritual citizenship education
		7-1. Underestimating spiritual citizenship education
		7-2. Superficial and meaningless education education in the field of spiritual citizenship
		8-1. A superficial attitude towards spiritual citizenship education
		8-2. Lack of adherence to scientific and practical spiritual citizenship education

6.1 Digestion and integration of spiritual citizenship education into curricula: One way to address spiritual citizenship education is to incorporate it into the curriculum. One of the participants stated that:

> *Fortunately, the view has been created that spiritual citizenship education, as an important skill for the current century, should be presented scientifically in curricula. This promises to flourish this type of education in the near future.* (Participant No. 17)

6.2 Use of new approaches in spiritual citizenship education: The use of new technologies in spiritual education is one of the positive approaches in this field. One of the participants admitted that:

When the education of spiritual citizenship is deeply and meaningfully embraced, new technologies and innovative educational methods will undoubtedly be used to teach it. (Participant No. 20)

6.3 Positive attitude towards spiritual citizenship education: A positive attitude towards citizenship education is a key issue in this regard. One of the participants claimed that:

If you survey teachers, students, and parents, you will find that most have a positive view and attitude towards spiritual citizenship education and talk about the necessity of addressing spiritual citizenship education. (Participant No. 8)

7.1 Underestimating spiritual citizenship education: One of the unproductive approaches to dealing with spiritual citizenship education is to trivialize it. One of the participants stressed that:

Unfortunately, some people inside and outside the educational institution ignore the importance of spiritual citizenship education with arguments such that we are in the 21st century and we should focus more on objective sciences than spirituality. (Participant No. 6)

7.2 Superficial and meaningless education education in the field of spiritual citizenship: Relying solely on preserving spiritual concepts is another destructive approach in this regard. One of the participants emphasized that:

Some teachers, when it comes to teaching new subjects such as becoming a spiritual citizen, think that they should give a lecture in class like in other subjects and then test the students to see how much they have memorized. Our training has not changed the behaviors so far. If it had changed behavior, we wouldn't have all these problems and social harm. We only taught the topics to the students theoretically, not in a practical way. (Participant No. 3)

8.1 A superficial attitude towards spiritual citizenship education: Another unproductive approach to spiritual citizenship education is to do it hastily. One participant noted that:

> *Some colleagues think that the main courses are math and literature, etc., and if courses like Spiritual Citizenship are added, they consider it a huge burden that just needs to be done and they can get away with saying a few superficial trainings.* (Participant No. 9)

8.2 Lack of adherence to scientific and practical spiritual citizenship education: Another unproductive approach to educating spiritual citizens is lack of adherence to scientific and practical education. One of the participants suggested that:

> *Unfortunately, some teachers and education professionals do not have practical and scientific belief in spiritual citizenship education. When you do not believe in something, you will definitely not implement it correctly and the effectiveness of that program will be under question.* (Participant No. 9)

- RQ5. What are the advantages of the spiritual citizen curriculum model?

Table 5.

Advantages

Advantages	8. Behavioral dimension	8-1 Avoiding immoral and delinquent issues
		8-2 Maintaining religious identity in today's turbulent environment
	9. Moral dimension	9-1 Avoiding sin
		9-2 Promoting good morals
		9-3 Not being vulnerable to negative moral issues
	10. Ideological dimension	10-1 Institutionalizing positive thoughts against the negative dimension
		10-2 Awareness raising
	11. Mental dimension	11-1 Healthy mental nutrition
		11-2 Healthy mental diet
	12. Belief dimension	12-1 Adherence to ethics in all aspects of society
		12-2 Critical thinking in society
		12-3 Self-awareness and self-belief in society
	13. Intellectual dimension	13-1 A solid intellectual foundation in various social dimensions
		13.2 Wise self-care and other-care

8.1 Avoiding immoral and delinquent issues: One of the advantages of spiritual citizenship education is avoiding crime and misbehaviors. One of the participants claimed that:

> *Citizens who have received appropriate spiritual education usually avoid crime and wrongdoing due to their spiritual beliefs.* (Participant No. 16).

8.2 Maintaining religious identity in today's confusing environment: Among the advantages of spiritual citizenship education is the preservation of identity in the tense conditions of today's society. One of the participants expressed that:

> *In today's world, which is constantly bombarded by the media, the spiritual citizen preserves his or her spiritual and religious identity and tries to choose the authentic way of living.* (Participant No. 14).

9.1 Avoiding sin: Among the advantages of spiritual citizenship education is the avoidance from commiting sin. One of the participants acknowledged that:

> *A spiritual citizen realizes that commiting sin is inexcusable and unacceptable, and that God looks over our actions wherever we are, and tries to avoid it.* (Participant No. 16)

9.2 Promoting good morals: Among the positive outcomes of spiritual citizenship education is the promotion of good ethics. One of the participants noted that:

> *A spiritual citizen does not lie in the social space. He does not slander. He shows his true self. He does not gossip and takes action to promote morality, spirituality, and humanity.* (Participant No. 7)

9.3 Not being vulnerable to negative moral issues: Among the positive outcomes of spiritual citizenship education is the reduction of moral vulnerability. One participant stated that:

> *Poisonous atmosphere pollutes the mind of spiritual citizens less, and these students can promote their own beliefs in this space.* (Participant No. 11).

10.1 Institutionalizing positive thoughts against the negative dimension: Among the positive outcomes of spiritual citizenship education is the promotion of positive thinking. One participant admitted that:

When belief is ingrained in children, the negative atmosphere cannot easily question their belief. If we can internalize our trainings in the minds of students, they will become a strong tree that cannot easily be harmed. (Participant No. 11).

10.2 Awareness raising: Among the positive outcomes of spiritual citizenship education is awareness and enlightenment. One of the participants mentioned that:

A spiritual citizen is not easily influenced by negative behaviors in the first stage. If he has any doubts, he seeks to resolve them and seeks to inform others. (Participant No. 9)

11.1 Healthy mental nutrition: One of the positive outcomes of spiritual citizenship education is having healthy mental nutrition. One of the participants stressed that:

Just as the human body needs food, so does the soul need mental food. And while a person must be careful about his physical food, it is essential to be careful about his mental food as well. A spiritual citizen in society seeks healthy mental nourishment. (Participant No. 13)

11.2 Healthy mental diet: One of the positive outcomes of spiritual citizenship education is a healthy mental diet. One participant stated that:

A student who is educated as a spiritual citizen, if spirituality is internalized in hime, he will observe a mental diet and will be accurate and sensitive to various contents that serve as food for his soul and spirit. (Participant No. 3)

12.1 Adherence to ethics in all aspects of society: One of the positive outcomes of spiritual citizenship education is following ethics. One of the participants emphasized that:

Students who are educated in spiritual citizenship observe ethical principles in the society. Ethics such as respecting the rights of others, not encouraging violence and discrimination, respecting privacy, not disclosing of personal information without permission, not producing and spreading fake and incorrect news,

respecting diversity and different opinions, and ensuring that information is reliable are essential for him. (Participant No. 5)

12.2 Critical thinking in society: Among the positive outcomes of spiritual citizenship education is the development of critical thinking. One participant stated that:

A spiritual citizen approaches issues critically and constantly asks himself: Where is the origin issues in society? Why are some issues important while others are not? How does the interpretation of others differ from mine? (Participant No. 17)

12.3 Self-awareness and self-belief in society: Among the positive outcomes of spiritual citizenship education are self-awareness and self-fulfillment. One participant stressed that:

People who have good spiritual education have a better understanding of social anomalies; in fact, spiritual education acts like a filter in this regard. (Participant No. 5)

13.1 A solid intellectual foundation in various social dimensions: Among the advantages of spiritual citizenship education is having a strong intellectual foundation. One of the participants expressed that:

A student who has a proper religious and spiritual upbringing, when he enters the society, he avoids doing what he feels are not appropriate in terms of religion based on his beliefs. (Participant No. 1)

13.2 Wise self-care and other-care: Among the positive outcomes of spiritual citizenship education is caring for oneself and others. One participant remarked that:

A student with a spiritual upbringing will definitely take care of himself. In addition, he tries to take care of others based on religious and thoughtful insights. (Participant No. 4)

Based on the research findings, the conceptual model presented in the figure below shows the relationships between the main categories resulting from the qualitative analysis process.

Underling Factors

1. Involvement in problems related to spiritual issues and students' need for knowledge in this field,
2. Parents demand for information and knowledge related to spirituality
3. Teachers' demand for developing knowledge related to spirituality in students
4. The need of various institutions and organizations for students to be equipped with up-to-date information and knowledge in the field of spirituality

Strategies

Digesting and integrating spiritual citizenship education into curricula
Using new approaches in spiritual citizenship education
A positive attitude towards spiritual citizenship education
Downplaying spiritual citizenship education
Parrot-like teaching in the field of spiritual citizenship
A task-solving attitude towards spiritual citizenship education
Lack of adherence to scientific and practical spiritual citizenship education

Central Category:

The multidimensional curriculum of the spiritual citizen

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Causal Factors

The need to strengthen spirituality

Attention to spirituality in lifestyle

The need for tangible and structural spiritual education

The emergence of various problems resulting from lack of spirituality

The importance of spiritual literacy

Spiritual intelligence

Advantages

Avoiding immoral and delinquent issues
Maintaining religious identity in today's confusing environment
Avoiding sin
Promoting good morals
Not being vulnerable to negative moral issues
Institutionalizing positive thoughts against the negative dimension
Raising awareness and sensitization
Healthy mental nutrition
Healthy mental diet
Observing ethics in all aspects of society
Critical thinking in society
Self-awareness and self-belief in society
A solid intellectual foundation in various social dimensions
Rational self-care and other-care

Intervening Factors

1. Structural support from within the educational institution towards spiritual citizenship education

2. A dynamic atmosphere within the organization towards spiritual citizenship education

3. Developing spiritual citizenship education programs from within and relying on internal elements of education

4. A top-down view of spiritual citizenship education without regard to field realities

5. An externally-driven version of spiritual citizenship education without regard to the internal capacities of education

6. A facilitative rather than interventionist attitude of society towards spiritual citizenship education

5. Discussion and Conclusion

In recent decades, attention to spirituality as the source of healthy human life has been the focus of many experts (Ramilan et al., 2024). Many of these experts believe that the responsibility of educating the spiritual citizen lies within the education system, which can address this issue through the curriculum (Siagian et al., 2023). But it should be said that the development of the spiritual citizenship curriculum has faced certain issues which was the main focus of the current research. The results of the current research indicated that the elements of the spiritual citizen curriculum can be explained in the form of factors such as causal, interventional, contextual factors, strategies and advantages. Such factors and their sub-components can play a significant role in facilitating or not facilitating spiritual citizenship education. For example, items such as the favorable attitude of teachers and students can be considered as driving factors in the curriculum of the spiritual citizen. However, items such as lack of efficient human resources and lack of up-to-date equipment can cause problems. In any case, developing the curriculum of spiritual citizenship requires paying attention to the above-mentioned five factors in a scientific and precise manner.

The first influential category in the curriculum of the spiritual citizen was the causal conditions, which include the need to strengthen spirituality, attention to spirituality in lifestyle, the need for tangible and structural spiritual education, the emergence of various problems resulting from lack of spirituality, and the importance of spiritual literacy and spiritual intelligence. Public and educational policies have a critical role in the success or failure of programs. The best programs are futile by inappropriate policies and programs. In this regard, Yeft and Shahar (2021) believe that the implementation of new educational programs, including citizenship education, should be properly planned through policy and planning, because any negligence in this field will have severe consequences. The next influential item is the nature of the school. Wilcox (2018) considers the school as a container that any type of education should be designed and formulated according to this container. Neglecting the nature of the school is one of the main obstacles in the successful implementation of the curriculum. On the other hand, the novelty and newness of educations such as spiritual citizenship also has a significant impact on how to formulate it. Vogelers (2019) believes that the novelty of spiritual citizenship education

leads to the conflict of stakeholders in this type of education with problems. Therefore, its explanation is very important.

The second influential category in the curriculum of spiritual citizenship is the underling factors, which include items such as involvement in problems related to spiritual issues and students' need for knowledge in this field, parents' demand for information and knowledge related to spirituality, teachers' demand for developing knowledge related to spirituality in students, and the need of various institutions and organizations for students to be equipped with up-to-date information and knowledge in the field of spirituality. The atmosphere of the school determines how to deal with and implement any kind of educational program. The curriculum of the spiritual citizen is also affected by these conditions. Walsh (2020) believes that the type of communication within the school and its underlying philosophy are very effective in developing the curriculum and its successful education. In fact, the communication and interactions that exist in every school determine the course of the curriculum. Of course, students and their interests also have a significant impact in this regard. Ayouzi et al. (2012) consider the way students encounter citizenship education are affected by the extent to which the curriculum reflects the students' interests. Teachers and their opinions are also one of the influential items in response to the spiritual citizen curriculum. In this regard, McGrath et al. (2022) introduce teachers as influential components of the curriculum and believe that the development a curriculum such as spiritual citizenship will not be effective without taking into account the opinions of teachers. The way teachers react to the curriculum of spiritual citizenship will be decisive, so clarifying the positions of teachers in this regard seems very necessary.

The third influential category in the curriculum of the spiritual citizen is intervention factors that include items such as the level of attitudes and beliefs, school and its culture, society and its culture. Individual and collective attitudes have a significant impact on how to develop a curriculum in general and spiritual citizenship in particular. Urban and Ward (2020) consider the ideologies and ideas of the society as the most important element in the formation of curricula in the current era. These two researchers believe that without the existence of individual and collective attitudes, it is impossible to develop a curriculum. On the other hand, culture and its various forms, such as school and community are also

very important in accepting or not accepting some curricula. The curriculum of the spiritual citizen is one of those programs that are strongly affected by the culture of the school and society. In fact, according to the findings of Yunal and Keegan (2019), it should be said that the culture that governs the school is one of the main fundamental issues in the design and implementation of a curriculum, the absence of which leads to a weak curriculum.

The next influential category in the spiritual citizen are strategies, which include items such as receptive approach, rejection approach, and neutral approach. The way an educational system deals with emerging phenomenon such as the spiritual citizen can be placed in a spectrum from acceptance to rejection. Tambek (2021) found that uncorrectable educational systems adopt traditional methods such as lectures and mere transfer of information to students when implementing new curricula. On the other hand, Sovasan and Gamal (2021) believe that leading educational systems prepare themselves to accept the new issues of the society by using new educational methods such as interdisciplinary curricula. Of course, there is a third group that ignores these issues completelt. How to adopt strategies to deal with new subjects by the educational system will determine the future of the educational system.

The final important dimension in the curriculum of the spiritual citizen was the advantages, which include items such as mental and psychological, social and cultural. Indeed, the formulation and implementation of the citizenship curriculum at the individual and collective level brings many benefits to the society. As many researchers such as Stein (2021), Starkey (2016), Rodrigues (2018), Sohrabi (2016) have pointed out, spiritual citizen training, while reducing social harms, leads to improving the way of life, increasing solidarity with others, avoiding crime, increasing healthy behaviors and overall improvement of individual and collective aspects of human being. It should be said that spiritual citizenship is an indispensable element in today's era, considering many problems such as war, pollution and poverty. If human societies seek to improve the current situation of human life, resorting to spiritual citizen education is an effective model. But in this difficult journey, the educational system and its key component (curriculum) should design and formulate effective education in this field, considering the prerequisites of spiritual citizenship.

The present study contains several implications related to spiritual citizenship education. Some of these implications, according to the research results, include:

- (1) Changing and modifying the curriculum from memory-centered to skill-centered and acquiring skills related to spiritual citizenship.
- (2) Reviewing the four elements of the curriculum (goal, content, method, evaluation) with regard to the realities of adolescent life and modern life and placing greater emphasis on spiritual citizenship.
- (3) Training appropriate instructors to teach students about spiritual citizenship in a way that properly develops knowledge and skills related to spiritual citizenship in students.
- (4) Promoting spiritual citizenship education. It is suggested that a specific course or courses are designed related to the subject of spiritual citizenship to familiarize students with this concept and, as a result, eliminate the problems related to lack of awareness in this field.
- (5) Considering a special program and time for spiritual citizenship education. It is recommended that special classes be considered for teaching students about spiritual citizenship.
- (6) Encouraging parents to get involved in educational issues, especially teaching students about spiritual citizenship. By getting parents involved in educational subjects, especially in the concept of spiritual citizenship, it will facilitate this type of education for students.
- (7) Developing and designing an extraordinary curriculum for students that specifically addresses spiritual literacy. This curriculum can be delivered outside of formal school hours by an experienced instructor.
- (8) The content provided to teach students about spiritual citizenship should take into account the context of each region.
- (9) Providing training workshops for teachers to familiarize them with spiritual citizenship issues and move from a knowledge-based mindset and traditional educational methods to a skills-based mindset and practical training in spiritual citizenship.

- (10) It is suggested that the implementation of the spiritual citizenship education program to be carried out not independently, but rather in an integrated manner and in connection with other curriculum subjects.

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