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### Table of Contents

1. The impact of reflective learning on EFL learners' self-regulation: A mixed methods study: Salman Asshabi, Mojgan Rashtchi\*, Massood Siyyari, [Pages 1-31](#).
2. The perceptions of Iranian EFL teachers towards the effect of incorporating different task types on their learners' oral interaction: Shima Ghiabi, Abbas Bayat\*, Hamid Reza Khalaji, [Pages 32-53](#).
3. Modeling teacher emotionality and identity through structural equation modeling (SEM): English as a Foreign Language (EFL) teachers in focus: Masoud Mortazavi Nezhad, Fazlolah Samimi\*, Shahram Afraz, [Pages 54-73](#).
4. Investigating Iranian EFL students' perceptions towards incorporating multiple-intelligences based tasks into their classroom activities: Mohammad Hassan Alishahi, Hossein Khodabakhshzadeh\*, Hamid Ashraf, [Pages 74-102](#).
5. The comparative study of teacher vs. peer scaffolding on improving Iranian EFL learners' speaking skill: Saeed Sayyad Chamani, [Pages 103-122](#).
6. Designing a native entrepreneurship education model for higher education: A qualitative study: Sara Shahidi, [Pages 123-139](#).

**The impact of reflective learning on EFL learners' self-regulation: A mixed methods study****Article info****Article Type:**

Original Research

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**Abstract**

Self-regulation equips learners with the expertise to continue and improve their studies throughout their life span. The current study investigated the impact of reflective learning using Kolb's cyclical stages on EFL learners' self-regulation. The participants were 61 Iranian EFL learners from two intact university classes randomly assigned to the Reflective (n=30) and Non-reflective (n=31) groups. During an eight-week instruction, the Reflective group experienced reflective practices, and the Non-reflective group was exposed to traditional teaching. The data were collected through Seker's (2016) Self-Regulated Questionnaire, administered before and after the treatment and participants' think-aloud protocols. The quantitative data analysis using ANCOVA and MANOVA revealed that the Reflective group significantly outperformed the Non-reflective group in all self-regulated learning components except for external and metacognitive self-regulation subscales. The protocol data analysis substantiated the quantitative findings, indicating that reflective learning significantly improved learners' self-regulated skills. The results offer significant implications for language instructors and language learners.

**Keywords:** Kolb's Experiential Learning Cycle, Reflective Learning, Self-regulation

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## 1. Introduction

Improving language learning has long been an area of research studies in EFL contexts. Self-regulated learning as a vital construct in language learning has been the focus of several studies using various learning procedures, such as scaffolding (Muthmainnah et al., 2024; Van der Graaf et al., 2023), reflective writing behavior (Suraworachet et al., 2021), and reflective practices (Pazhoman & Sarkhosh, 2019). Self-regulated learning involves engaging learners with activities that can boost the effective learning of individuals outside the formal learning environments (author....., 2023). Studies (Dunn, 2023; Lofdahl, 2023; Teng, 2022) show that enhancing self-regulated learning can improve language learning outcomes. Factors such as active engagement, self-adjustment, and self-monitoring in the learning process facilitate achieving specific goals (Li & Deng, 2024; Milikić et al., 2018) and contribute to lifelong learning (Schunk & Greene, 2018), which can allow learners to manage their studies independently. However, self-regulated learning requires instruction to help learners become self-regulated and succeed in language learning (Deekens et al., 2018).

Self-regulated learning as a cognitive (Chou, 2024) and meta-cognitive process (Loksa et al., 2022; Pazhoman & Sarkhosh, 2019) is in close connection with reflective learning (Boor & Cornelisse, 2021). Thus, the current study's researchers assume that instructing learners through reflective learning procedures can enhance their self-regulated skills and prepare them to become autonomous learners. This assumption accords with existing theories that indicate reflection incorporated through various reflective procedures in language learning classes cultivates self-regulation (Burner, 2007; Greenwood, 2010). Due to its cognitive and metacognitive nature, reflective learning requires higher-order thinking skills that support learners' self-regulated skills (Radović, 2024), particularly in academic settings. Therefore, to guarantee lifelong learning, which can foster learners' future success, the current study's researchers employed reflective learning practices with two purposes: first, to examine whether such practices could promote learners' self-regulated skills, and second, to explore which sub-components of self-regulation are affected by reflective learning.

## 2. Review of Related Literature

Several researchers have focused on reflection as the medium to enhance learning outcomes (Dewey, 1933; Kolb, 1984, 1994; Moon, 2004; Schön, 1987) in all fields,

including language learning. Dewey (1933), as a pioneer in the field, defines reflective thought as active and careful consideration of any belief comprising of two interrelated notions: firstly, a state of mental doubt in which thinking originates, and secondly, an act of inquiring to settle hesitation and perplexity. Kolb (1984), inspired by Dewey's ideas, argues that learners learn from daily life experiences in four cyclical stages such as *concrete experience* where countless opportunities occur for individuals to kick-start the learning cycle (stage 1), *reflective observation* in which learners involve themselves in thinking about what they experienced (stage 2), *abstract conceptualization* when learners conceptualize to make a hypothesis about their experiences (stage 3), and *active experimentation*, that learners effectively test the hypotheses they have adopted (stage 4). The essence of Kolb's model is that the different stages of learning should occur consecutively with no time-lapse, and learning should follow all stages one after the other. As Merriam and Caffarella (1999) assert, "The principle of continuity of experience means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after" (p. 223).

Reflective learning as the manifestation of reflection has been discussed as a form of education in which students reflect upon their learning experiences and form a cycle of reflection and action (Ramsey, 2006). Many scholars have discussed the importance of reflective learning for promoting the quality of learning and enhancing learners' achievements (Daff et al., 2024; Frank, 2023; Kolb, 1984, 1994; Schön, 1987; Walsh & Mann, 2015). Indeed, reflective learning views learning as the process of experiencing and reflecting, resulting in a more profound understanding of concepts (Morrison, 2019). The target of reflective learning is practical problems amalgamated by doubt and confusion (Fullana et al., 2016). Thus, deep thinking about experiences and rethinking one's decisions are vital concepts in reflective learning. Sellars (2013) believes that reflection is a purposeful act that can lead to problem-solving, understanding, and learning success.

Different theories of self-regulated language learning describe regulation phases (Zajda, 2024; Zimmerman, 2000) in which students adopt different strategies for dealing with the challenges posed by a learning task (Aali Shirmard et al., 2022; Suraworachet et al., 2021). However, self-regulation is not a unitary construct that can be entirely developed. Self-regulation reveals itself through its different

subcomponents (Seker, 2016). Most studies have conceptualized self-regulation as a unitary construct and explored how it can be affected by implementing variables such as language skills, sub-skills, or specific instruction. For instance, the study by Muthmainnah et al. (2024) indicated that AI-mediated language training promoted learners' self-regulation. In another study, Suraworachet et al. (2021) investigated how reflective writing behavior improved learners' self-regulated competence. Pazhoman and Sarkhosh's (2019) study indicated that reflective practices could enhance learners' self-regulation. Similarly, multiple studies considering self-regulation a unitary construct showed that reflective practices could promote self-regulated learning (Asselin & Fain, 2013; Pedaste et al., 2012; Pike, 2017; Tucci, 2018).

However, studies conducted specifically on the impact of reflective learning on the subcomponents of self-regulation are scarce. It is axiomatic that self-regulation is primarily a cognitive, metacognitive, and evaluative process. Seker (2016) believes incorporating self-regulated learning strategies into foreign language teaching helps cultivate autonomous learning, leading to lifelong learning. As a result, researchers in the current study, presuming that sub-components shape self-regulated learning, investigated whether incorporating reflective learning practices could enhance learners' self-regulated skills. Thus, they adopted a convergent mixed methods approach (Creswell, 2015), developed a two-stage study, and simultaneously collected quantitative and qualitative data to answer the following research questions.

**RQ1:** To what extent does reflective learning impact Iranian EFL learners' self-regulation?

**RQ2:** How do the participants engage in reflective learning in terms of developing self-regulation?

### **3. Method**

#### **3.1. Participants**

The participants were 61 TEFL undergraduate students (aged 21 to 26) in the fifth semester of their study in an Iranian university. They were members of two intact classes randomly assigned to two treatment conditions. One class, consisting of 30 (13 males and 17 females) students, was assigned to the Reflective group, and the other class, containing 31 students (15 males and 16 females), was selected as the

Non-reflective group. Due to the educational setting constraints, the intact classes were more feasible than randomizing individual students into different groups. Informed consent was obtained from all participants, clearly explaining the nature of the study, their voluntary participation, and the confidentiality of their personal information. Participants were informed of their right to withdraw from the study without penalty.

## **3.2. Instruments**

### **3.2.1. The Self-Regulated Learning Questionnaire**

The Self-Regulated Language Learning Questionnaire (SRLQLQ) was developed and validated by Seker (2016) was used as pretest and posttest to measure participants' self-regulation (see Appendix). The total internal consistency of the instrument was calculated using Cronbach's alpha ( $\alpha = 0.75$ ). The reliability of the questionnaire components is reported to vary from ( $\alpha = 0.62$  to  $\alpha = 0.78$ ). The validity of SRLQLQ has been computed using factorial analysis. Seker reported that after removing 13 items, the remaining 30 showed acceptable factor loadings (see Seker, 2016). The five-point Likert-type questionnaire consists of 30 items, including five subscales of internal motivation (5 items), external motivation (4 items), cognitive strategies (7 items), metacognitive strategies (10 items), and evaluation (4 items). The questionnaire was administered to the study groups as a pretest and posttest.

### **3.2.2. Think-Aloud Protocol**

The think-aloud protocol was employed to capture the students' thought processes while participating in reflective learning activities. Think-aloud protocol is a kind of activity in which students express their thoughts while performing tasks or solving problems (Lundgrén-Laine & Salanterä, 2010; McKay, 2006). The think-aloud procedure is generally recorded or audio-typed by researchers. However, the procedure has been criticized as combining observation and retrospection, where it is probable for researchers to get significant information (Van Someren et al., 1994).

### **3.2.3. Materials**

The researchers used *American English File 2* (Latham-Koenig et al., 2017) for instruction. The book has different parts devoted to the four language skills.

### 3.3. Procedure

The two groups participated in sixteen sessions of instruction for eight weeks. In each session, students were encouraged to participate in class discussions while engaging in reflective learning. One of the researchers, who was an English instructor, taught *American English File 2* (Latham-Koenig et al., 2017) to both groups. For teaching reflection to The Reflective group, the researchers adopted Kolb's Experiential Learning Cycle, and the Non-reflective group received the traditional way of teaching.

**Reflective Group:** In the reflective group, the teacher introduced Kolb's model to the class after a warm-up activity. To familiarize students with think-aloud practices, as a preparatory activity, the teacher asked the participants to verbalize their thought processes while engaged in reflective learning. The reflective group practiced the think-aloud activity in one session before initiating the instruction. The reflective group followed Kolb's Experiential Learning Cycle in four cyclical stages. The cycle involves learners' participation in concrete experiences, observation, and reflection about the experiences, constructing abstract concepts, and testing them in new situations. However, continuity among the stages is necessary. During the class, the teacher, one of the researchers, asked students to verbalize their thoughts when answering to record their voices. The instructor tracked the thread of their speech while taking notes for further clarification.

*Reading:* In each session, after having a warm-up, the teacher initiated one or two general questions to activate students' schema concerning the new learning activity. He read the assigned text and clarified the problem areas. Then, students formed groups and used the learning experience as a new opportunity to 'kick-start' the learning activity. The instructor encouraged students to participate in the learning experience by using words or phrases such as 'aha, bravo, that's it, well done' while students were trying to start talking about the reading experience. (*Stage 1: Concrete Experiences*).

Next, the students reflected on the reading experience and examined what they had in the concrete experience. They expressed as many sentences as they remembered. For example, the instructor asked about the author's intended message and how he conveyed the ideas to the reader. How did you like the learning experience? Why or why not? (*Stage 2: Reflective Observation*).

Then, the students reviewed what they had understood from the learning experience and conceptualized new concepts for some ideas in the text, connected some sentences, and made hypotheses concerning learning materials. For example, the teacher asked volunteers to discuss the purposes of some structures, combine some sentences to convey the same meaning, and compare some structures or ideas to gain a new understanding or form new concepts. He asked students to paraphrase some structures, share the same ideas differently, or express their views on other participants' views. (*Stage 3: Abstract Conceptualization*).

Finally, students applied their new understanding to similar learning contexts. For instance, the teacher asked some students what they would do if they were in the place of a given character in the reading passage and how they would relate the new experience to their new life experience, like being in a grocery or at a bookshop. For example, if the reading was about mountain climbing, the instructor asked learners how they would prepare for a long-running distance competition (*Stage 4: Active Experimentation*).

*Listening:* The instructor activated learners' schema by raising a few general questions related to the topic to motivate them to think and guess the content of the listening passage. The instructor stated that the structures and words used in the new listening skill were like those they had encountered earlier in their textbook. These encouraging sentences would create students' desire, openness, and willingness to give full attention to the listening section. The participants listened to the passage (CD of the book) while holistically paying attention to the message and ignoring details. In the next step, volunteers stated the central idea of the listening material. The teacher asked silent students to repeat some of their classmates' statements if they could not make sentences. The procedure continued until an acceptable number of sentences were uttered. More importantly, if students expressed wrong sentences, they were allowed to continue speaking since, at this stage, the purpose was not to understand the content of the listening passage but to participate in class discussion to improve listening and, as a result, speaking ability (*Stage 1: Concrete Experiences*).

In the second stage, the teacher pinpointed some basic structures mentioned in the previous cycle. Then, the class created more sentences by visualizing and thinking about the listening passage. In this way, students could easily imagine and remind themselves of what they experienced in the previous learning activity and tried



to mention other related sentences. Students were encouraged to think about the listening experience, imagine, and picture the main points in their minds (*Stage 2: Reflective Observation*).

In the third stage, students pictured the sentences in their minds, tried to keep the same ideas, and used their wording and structure to convey the same meanings. They reasoned and conceptualized the listening contents. Each person's statement acted as a listening activity for other classmates. For example, the students stated their opinions on their classmates' ideas by paraphrasing, summarizing, and providing their views. Thus, they formed new concepts concerning ideas mentioned in the listening activity (*Stage 3: Abstract Conceptualization*).

In the last stage, the learners listened to the passage (the CD) and marked the multiple-choice question. The teacher gave the students the correct answers and let the class think about the experience for five more minutes to raise any problems. The teacher assigned a similar topic to the last activity, and two volunteers did a listening activity. For example, suppose in an earlier listening activity, some passengers were waiting at the airport to go abroad for a holiday. The teacher selected a topic in which football players waiting in the bus station wanted to go to another city to hold a match. The volunteers should make a listening passage for it while collaborating and helping each other. Similar imaginary listening activities were repeated to help students practice unrehearsed situations (*Stage 4: Active Experimentation*).

*Speaking:* To start speaking, the instructor asked students to think about materials they had worked on before. By speaking to students or providing them with hints concerning a previous topic, the instructor motivated learners to start talking about the subject they had studied earlier. The teacher increased the difficulty level of the questions by starting with yes-no questions and moving to alternative questions. For example, the teacher asked a student, "Amir, do you enjoy studying English? Do you live in a house or an apartment? Nahid, what TV shows do you watch? Why did you watch such a TV show? Explain. Yaser, where did you learn English?" The teacher continued discussing similar experiences the students had encountered in their books to help them participate willingly in class discussions. (*Stage 1: Concrete Experiences*).

Next, the teacher asked the students to reflect on the structures practiced in

the previous stage and try to imagine them in their minds. He asked: “*Yaser, what TV shows did Nahid watch? Nahid, where did Yaser learn English? Did Amir live in an apartment or a building?*” By encouraging the students to participate in the question-and-answer exercises, the teacher tried to help them keep the sentences in their minds (*Stage 2: Reflective Observation*).

The instructor initiated a new activity by asking students to construct new concepts or similar structures to those used in the previous activity. For example, he asked a student, “*What do you think about Yaser’s statement when he said he had learned English in different institutes?*” Volunteers combined some of the sentences and explained the structures they had learned. The learners used their own words and structures to convey the same meanings. The class discussed the structures they had practiced in the previous cycles. Thus, different voices were heard concerning the earlier structures and subjects the learners had experienced and observed. (*Stage 3: Abstract Conceptualization*).

Finally, a similar topic, such as being in a drugstore, was selected for the class. The participants used the previous structures and used them to the new situation. In so doing, different groups were formed; they discussed the topic in line with the framework of the structures they had practiced. They were reminded to apply what they had learned to the new situations. During group discussions, if a misunderstanding arose, the instructor helped solve the problems (*Stage 4: Active Experimentation*).

*Writing:* Generally speaking, the topic assigned for writing ability was connected to the issues discussed in the book. Therefore, the instructor reminded students to think about a topic they encountered earlier in some lessons, such as describing a photo. The learners were allowed to take notes during the discussions. The teacher tried to activate students’ schema by reminding them to think about an event in the earlier lessons. He encouraged students to be active in the class and use the general guidelines he had provided during discussions. The purpose was to encourage students to participate in class discussions willingly (*Stage 1: Concrete Experiences*).

Following this stage, the teacher asked the students to reflect on the experience, review the written structures, and focus on them. For instance, if the topic

was “*My favorite photo*,” they were asked to reflect on how the pictures, buildings, or faces were described in the previous learning contexts. Then, the learners read their notes and expressed themselves using different structures. (*Stage 2: Reflective Observation*).

Then, the learners interpreted some structures to form new concepts for the concepts or structures used in the previous stages. If a participant used a structure to describe an aspect of the given topic, other students conveyed the same idea differently. For example, if the learners had seen sentences such as “*The truck was as heavy as a rock, or The racing car sped up like an airplane on the road*” in their learning contexts, they made sentences like: “*My favorite sportsmen were as powerful as a truck, or my favorite sportsmen ran as fast as the racing car speeding up in the finished line.*” (*Stage 3: Abstract Conceptualization*).

Finally, the students used the learned structures and concepts to develop an essay on the assigned topic in 50 minutes. They would generalize what they had practiced in the previous cycles to the new situations. In this stage, students were allowed to consult friends while writing the first drafts. It is worth mentioning that all the students wrote journals concerning the whole process of the writing activities after they had delivered their final composition. Their journals were discussed and corrected at the beginning of the following sessions (*Stage 4: Active Experimentation*).

The students’ comprehension was examined after each learning cycle. Thus, continuity of understanding was essential in each cyclical stage of reflective learning. Furthermore, in each cycle, the learners’ understanding was evaluated and compared with the previous stage to have a clear picture of the language learning process. Analyzing think-aloud protocols also showed the changes in students’ behavior and substantiated the quantitative findings.

**Non-reflective Group: Reading:** The same book was taught in the Non-reflective group by the same instructor but in a different way. The teacher followed typical teaching procedures. After entering the class and having a warm-up, he raised two or three general questions concerning reading passages to activate the students’ background knowledge. For instance, if the reading passage was about “*going on a holiday with a friend to another city or country*,” the instructor addressed the class: “*What are your priorities? What things are you taking with you? What should the*

*weather be like?"* Then, the teacher read the assigned materials aloud as students followed him in their textbooks and explained them. He gave them time to review the text silently and raise any problems or misunderstandings. The teacher was ready to clarify the issue. Then, he asked volunteers to raise some comprehension questions to be answered by the participants. If they failed to answer correctly, the instructor gave them the correct answer. Moreover, the learners wrote the answers to the questions in their notebooks. As the final activity, the teacher asked volunteers to summarize the reading passage to check students' understanding of the reading materials.

*Listening:* Like the reading activity, the instructor introduced the passage and started by asking general questions to activate the participants' background knowledge. He provided them with some general guideline statements and suggested that they look for the central message of the passage. Then, he read the listening passage to them or played the book's CD. The teacher explained similar sounds, stress patterns, and rising and falling intonations to help students overcome potential misunderstandings. Furthermore, he presented them with redundant elements to indicate that their existence in the passage was for more clarification than creating the problems. Then, the passage was reread while students listened carefully and wrote the answers to the questions. The students' responses were checked. They had the opportunity to explain the reasons for their choices. Following this activity, the students had to raise questions to be answered by their classmates. As the last step, the teacher asked a few volunteers to give the gist of the listening passage.

*Speaking:* The instructor tried to engage as many students as possible in speaking activities. In American English File 2 (Latham-Koenig et al., 2017), speaking is taught in connection with other skills; thus, the instructor asked the participants to form two groups and think about the issues in the book while they were allowed to consult their textbooks. Afterwards, a student from one group raised a question, and any student from another could answer. For example, students asked: "*Where did Joe go on vacation? Who(m) did he go with? Why didn't he enjoy his vacation?*" Students from one group could ask as many questions as possible, and the other students answered. This procedure continued till the story ended. Finally, the whole class reported the same story from the beginning to the end, with each student, in one sentence. Thus, everybody had a chance to speak and improve their speaking

abilities.

*Writing:* The topic selected for the writing activity was generally similar to the subjects discussed in previous lessons. Therefore, the teacher raised some issues for the students to think about the structures. Then, he asked them to brainstorm and jot down in their notebooks as many sentences as would come to their minds. The teacher encouraged students to speak out their sentences to let the class hear different sentence structures that could deal with the same idea while he was correcting errors in punctuation, vocabulary, and diction. Moreover, the teacher discussed different types of paragraphs and explained coherence and cohesion. He helped the students develop a good composition on the topic under discussion in 50 minutes. Finally, he selected a few students to read their essays to correct errors. Students could develop their compositions at home if they liked; however, the teacher gave feedback on all writings in the next session and evaluated them as “weak, average, good, and excellent.”

## **4. Results**

### **4.1. Quantitative Phase**

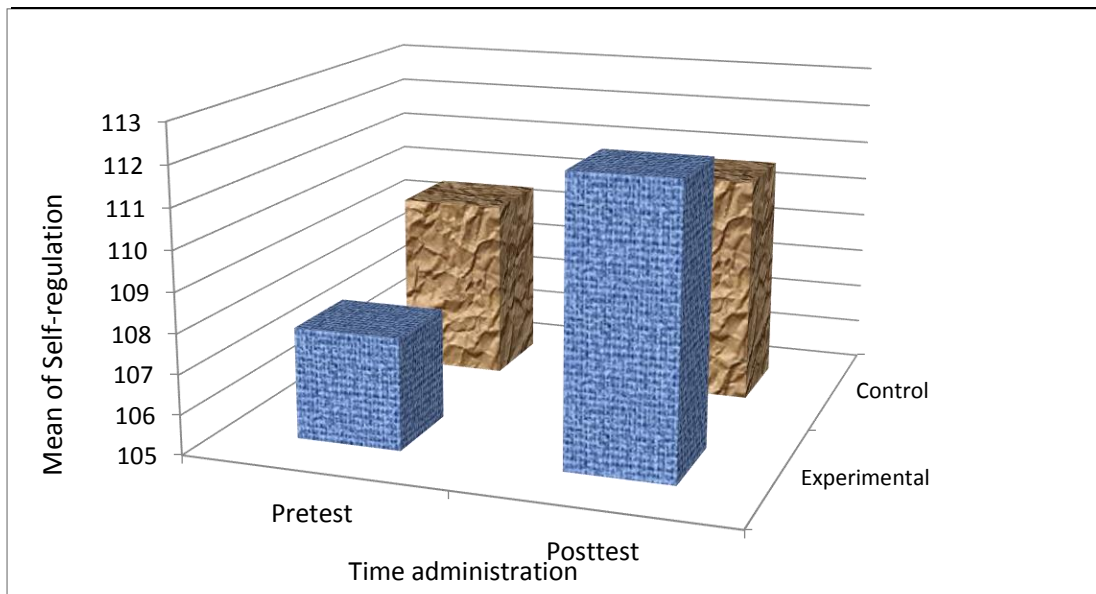
A one-way ANCOVA was run to answer the first research question. The scores on the pretest were dealt with as a covariate to structural for pre-existing differences between the groups. Moreover, a MANOVA was utilized to examine the effect of the treatment on five subscales of the self-regulated language learning questionnaire. Table 1 summarizes the descriptive statistics for the groups' self-regulation scores.

As displayed in Table 1 and Figure 1, the mean of learners' self-regulation in the Reflective Language Learning group increased from the pretest ( $M= 107.80$ ,  $SD= 8.44$ ) to the posttest ( $M=112.10$ ,  $SD=7.88$ ). Conversely, the increase from the pretest ( $M=109.52$ ,  $SD=8.86$ ) to the posttest ( $M=110.68$ ,  $SD=8.71$ ) in the Non-reflective Language Learning group is almost slight.

**Table 1.**

**Descriptive Statistics of Self-Regulation Scores on Pretest & Posttest**

Administration	Group	N	Mean	SD	SEM
Pretest	Reflective	30	107.80	8.445	1.542
	Non-reflective	31	109.52	8.865	1.592
Posttest	Reflective	30	112.10	7.880	1.439
	Non-reflective	31	110.68	8.708	1.564



**Figure 1.** Bar graph of means of learners' self-regulation on pretest and posttest by group

*Testing assumptions:* According to Lazarton (1991), the assumptions of linearity, homogeneity of variances, and homogeneity of regression slopes must be examined before conducting ANCOVA. Table 2 shows the results of the assumption of a linear relationship between the dependent variable (self-regulation posttest) and the covariates (self-regulation pretest). As evident, the linear relationship between the self-regulation posttest and the self-regulation pretest was significant ( $F=743.02$ ,  $p<.001$ ); therefore, the linearity assumption was not violated.

**Table 2.**

## Relationship between Self-Regulation Pretest &amp; Posttest

		Sum of Squares	df	Mean Square	F	Sig.
Between (Combined)	Groups	3933.078	26	151.272	29.687	.000
Linearity		3786.127	1	3786.127	743.021	.000
Deviation from Linearity		146.951	25	5.878	1.154	.344
Within Groups		173.250	34	5.096		
Total		4106.328	60			

Table 3 shows that the homogeneity of variance assumption was met for self-regulation with Levene's test,  $.38 > .05$ .

**Table 3.**

## Equality of Error Variances for Learners' Self-Regulation Scores

F	df1	df2	Sig.
.785	1	59	.379

Table 4 shows that the third assumption (homogeneity of regression slopes) was met: the interaction between group and learners' self-regulation pretest (Group \* Pretest) ( $F=1.26$ ,  $p=.27$ ) was not statistically significant.

**Table 4.**

## Regression Slopes for the Effect of Reflective Language Learning on Self-Regulation

Source	Type III Sum of Squares	DF	Mean Square	F	Sig.	Partial Eta Squared ( $\eta_p^2$ )
Corrected Model	3928.818	3	1309.606	420.526	.000	.957
Intercept	34.671	1	34.671	11.133	.001	.163
Group * Pretest	3.927	1	3.927	1.261	.271	.022
Error	177.510	57	3.114			
Total	760802.000	61				
Corrected Total	4106.328	60				

A one-way ANCOVA was performed to compare the effectiveness of reflective language learning on learners' self-regulation. Participants' scores on the pretest of self-regulation were the covariate in the analysis (Table 5). After adjusting for the learners' self-regulation scores on the pretest, there was a significant difference between the groups' self-regulation scores on the posttest,  $F(1, 58)=44.36$ ,  $p<.001$ ,  $\eta_p^2=.43$ . Consequently, the null hypothesis, "There is no statistically significant difference between the self-regulation of the Reflective Language Learning group and the Non-reflective Language Learning group," was rejected, leading to the conclusion that reflective language learning enhances Iranian EFL learners' self-regulation.

Table 5 shows a strong relationship between the pre-intervention and post-intervention scores on the total learners' self-regulation,  $p<.001$ ,  $F(1, 58) = 1244.81$ ,  $\eta_p^2= .95$ .

**Table 5.**

Between-Subjects Effects of Reflective Language Learning on Self-regulation

Source	Type III Sum of Squares	DF	Mean Square	F	Sig.	Partial Squared ( $\eta_p^2$ )	Eta
Corrected Model	3924.892	2	1962.446	627.338	.000	.956	
Intercept	33.458	1	33.458	10.696	.002	.156	
Pretest	3894.038	1	3894.038	1244.812	.000	.955	
Group	138.765	1	138.765	44.359	.000	.433	
Error	181.436	58	3.128				
Total	760802.000	61					
Corrected Total	4106.328	60					

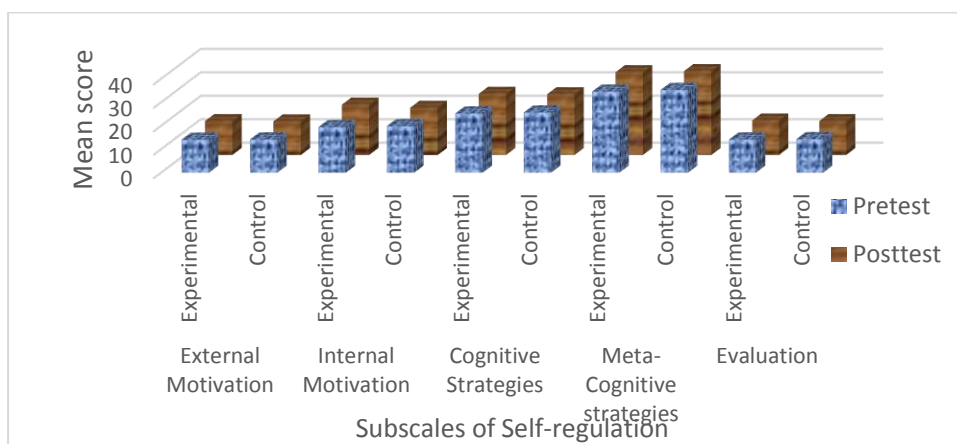
The descriptive statistics of the pretest self-regulation on five subscales (Table 6) show closeness on the pretest.



**Table 6.****Descriptive Statistics for the Subscales of Self-Regulation (Pretest)**

Subscale	Groups	N	Mean	SD	SEM
External Motivation	Reflective	30	14.13	2.270	.414
	Non-reflective	31	14.23	2.334	.419
Internal Motivation	Reflective	30	19.50	2.515	.459
	Non-reflective	31	19.90	2.612	.469
Cognitive Strategies	Reflective	30	25.33	2.426	.443
	Non-reflective	31	25.71	2.452	.440
Meta-Cognitive strategies	Reflective	30	34.63	3.899	.712
	Non-reflective	31	35.32	4.238	.761
Evaluation	Reflective	30	14.20	2.203	.402
	Non-reflective	31	14.35	2.122	.381

Table 7 and Figure 2 depict the means for scores on five subscales of self-regulation in the groups on the pretest and posttest. The mean score for three internal motivation, cognitive strategies, and evaluation subscales has increased noticeably from the pretest to the posttest. However, the other two external motivation and meta-cognitive subscales do not show such an increase.

**Figure 2.** Bar graph on five subscales of self-regulation

**Table 7.**

## Descriptive Statistics for Subscales of Self-Regulation (Posttest)

Subscale	Group	N	Mean	SD	SEM
External Motivation	Reflective	30	14.47	2.300	.420
	Non-reflective	31	14.35	2.360	.424
Internal Motivation	Reflective	30	21.47	2.345	.428
	Non-reflective	31	20.16	2.697	.484
Cognitive Strategies	Reflective	30	26.10	2.524	.461
	Non-reflective	31	25.90	2.385	.428
Meta-Cognitive strategies	Reflective	30	35.33	3.754	.685
	Non-reflective	31	35.77	4.153	.746
Evaluation	Reflective	30	14.73	2.067	.377
	Non-reflective	31	14.48	2.047	.368

*Testing assumptions:* According to Field (2009), three assumptions (interval data, independence of subjects, homogeneity of variances) should be examined before one decides to perform parametric statistical tests. The first assumption is not violated, as the data were on an interval scale. The assumption of participants' independence was also met.

As shown in Table 8, the significant value associated with Levene's test for three out of five subscales, internal motivation ( $p=.47$ ), cognitive strategies ( $p=.84$ ), meta-cognitive strategies ( $p=.32$ ) exceeded the selected significant level, indicating the homogeneity of variances. However, the results indicated that the significant value for the other two subscales, external motivation ( $p<.001$ ) and evaluation ( $p=.002$ ), below the selected significant level, revealed the violation of the homogeneity of variance assumption. Thus, the researchers decreased the significance level from .05 to .01.

**Table 8.**

## Equality of Error Variances for Scores on Subscales of Self-Regulation

Variable	F	df1	df2	Sig.
External Motivation	23.944	1	59	.000
Internal Motivation	.522	1	59	.473
Cognitive Strategies	.039	1	59	.844
Meta-cognitive strategies	1.004	1	59	.321
Evaluation	10.627	1	59	.002

Table 9 indicates that the assumption of homogeneity of covariance was met (Box's  $M=6.60$ ,  $F=.479$ ,  $p>.05$ ).

**Table 9.**

## Box's Test of Equality of Covariance Matrices for Subscales of Self-Regulation

Box's M	F	df1	df2	Sig.
6.605	.479	15	14981.202	.889

As seen in Table 10, multivariate tests showed a statistically significant difference (Wilks' Lambda=.38;  $F(5, 50) = 16.24$ ;  $p<.001$ ) in the overall self-regulation scores on the posttest while controlling the effect of the pretest. The partial eta squared was .62, expressing a large effect size according to Cohen's guidelines (Cohen, 1988, pp. 284-287).

**Table 10.**

## Multivariate Tests for Subscales of Self-Regulation

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.157	1.855	5.000	50.000	.119	.157
	Wilks' Lambda	.843	1.855	5.000	50.000	.119	.157
	Hotelling's Trace	.186	1.855	5.000	50.000	.119	.157
	Roy's Largest Root	.186	1.855	5.000	50.000	.119	.157
Pretest External Motivation	Pillai's Trace	.940	157.803	5.000	50.000	.000	.940
	Wilks' Lambda	.060	157.803	5.000	50.000	.000	.940
	Hotelling's Trace	15.780	157.803	5.000	50.000	.000	.940
	Roy's Largest Root	15.780	157.803	5.000	50.000	.000	.940
Pretest Internal Motivation	Pillai's Trace	.897	87.148	5.000	50.000	.000	.897
	Wilks' Lambda	.103	87.148	5.000	50.000	.000	.897
	Hotelling's Trace	8.715	87.148	5.000	50.000	.000	.897
	Roy's Largest Root	8.715	87.148	5.000	50.000	.000	.897
Pretest Cognitive Strategies	Pillai's Trace	.888	79.429	5.000	50.000	.000	.888
	Wilks' Lambda	.112	79.429	5.000	50.000	.000	.888
	Hotelling's Trace	7.943	79.429	5.000	50.000	.000	.888
	Roy's Largest Root	7.943	79.429	5.000	50.000	.000	.888
Pretest Meta- Cognitive Strategies	Pillai's Trace	.934	141.517	5.000	50.000	.000	.934
	Wilks' Lambda	.066	141.517	5.000	50.000	.000	.934
	Hotelling's Trace	14.152	141.517	5.000	50.000	.000	.934
	Roy's Largest Root	14.152	141.517	5.000	50.000	.000	.934
Pretest Evaluation	Pillai's Trace	.918	112.586	5.000	50.000	.000	.918
	Wilks' Lambda	.082	112.586	5.000	50.000	.000	.918
	Hotelling's Trace	11.259	112.586	5.000	50.000	.000	.918
	Roy's Largest Root	11.259	112.586	5.000	50.000	.000	.918
Group	Pillai's Trace	.619	16.246	5.000	50.000	.000	.619
	Wilks' Lambda	.381	16.245	5.000	50.000	.000	.619
	Hotelling's Trace	1.625	16.246	5.000	50.000	.000	.619
	Roy's Largest Root	1.625	16.246	5.000	50.000	.000	.619

Nevertheless, multivariate tests do not determine the precise difference between the two groups regarding the five subscales of self-regulation. Consequently, tests of between-subjects effects were run. Table 11 indicates that tests of between-subjects effects detected significant differences between the groups for three subscales of self-regulation: *internal motivation* posttest scores ( $F(1, 54)=70.18, p<.001$ ), *cognitive strategies* scores ( $F(1, 54)=8.35, p=.006$ ), and *evaluation* posttest scores ( $F(1, 54)=7.18, p=.008$ ). However, tests of between-subjects effects revealed no significant difference in *external motivation* ( $F(1, 54)=1.73, p=.19$ ) and *meta-*

*cognitive strategies* ( $F(1, 54) = .67, p = .42$ ).

**Table 11.**

Between-Subjects Effects on Subscales of Self-Regulation

Source	Dependent Variable	Type Sum Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Post-external motivation	303.292	6	50.549	156.316	.000	.946
	Post-internal motivation	370.423	6	61.737	100.367	.000	.918
	Post-cognitive strategies	327.762	6	54.627	104.465	.000	.921
	Post-meta-cognitive strategies	882.034	6	147.006	168.845	.000	.949
	Post-evaluation	232.920 <sup>e</sup>	6	38.820	118.853	.000	.930
Group	Post-external motivation	.560	1	.560	1.731	.194	.031
	Post-internal motivation	43.168	1	43.168	70.180	.000	.565
	Post-cognitive strategies	4.371	1	4.371	8.355	.006	.134
	Post-meta-cognitive strategies	.583	1	.583	.670	.417	.012
	Post-evaluation	2.346	1	2.346	7.184	.008	.117
Error	Post-external motivation	17.462	54	.323			
	Post-internal motivation	33.216	54	.615			
	Post-cognitive strategies	28.238	54	.523			
	Post-meta-cognitive strategies	47.015	54	.871			
	Post-evaluation	17.638	54	.327			
Total	Post-external motivation	12987.00	61				
	Post-internal motivation	26803.00	61				
	Post-cognitive strategies	41592.00	61				
	Post-meta-cognitive strategies	78053.00	61				
	Post-evaluation	13265.00	61				

#### 4.2. Qualitative Data on Learners' Self-Regulation

The researchers analyzed the qualitative data to answer the second research question and shed more light on the quantitative findings. In *stage one*, the teacher gave a writing activity and asked the reflective class to form groups and use their experience

with the connectors 'so, although, and because' to practice more. As usual, the teacher used encouraging statements to make students start speaking. While the students engaged in doing the task, their verbalizations were recorded. Then, learners' verbalizations were transcribed, and analyzed through the systematic classification of coding and identifying themes or patterns (Hsieh & Shannon, 2005). Several protocols were extracted from the participants' verbalizations while doing tasks. However, removing the repetitious themes reduced the number of protocols. The *themes that* emerged from think-aloud protocol analysis were based on more than two-thirds of the issues common among the participants' verbalizations. The '*themes*' that emerged from protocol data analyses were 'interaction, sharing knowledge, and cooperation,' helping learners improve their understanding of new concepts, which ended in '*gradual improvement*' over Kolb's cyclical learning stages. It is worth mentioning that, in case it was necessary to report a sample protocol, the researchers reported it anonymously.

In short, the content analysis of the common protocols indicated that the more students thought over the experience, the better they regulated their understanding. As inferred from the following sample protocols, the participants participated in the experience with willingness. They answered the questions raised by another participant; however, most could not generate appropriate sentences based on their meanings. The sentences expressed by some students in the final part of the activity were better than the first part, implying that the more students thought over the experience, the better they regulated their understanding, which is in line with Zimmerman's findings (2001). A sample of participants' protocols was:

**Youness:** *Why was Hannah driving fast?*

**Aso:** *Because she is in a hurry, so she liked to drive fast. Although she was tired, she was driving fast.*

**Sahar:** *Why didn't Hannah see the man?*

**Parastoo:** *Because she was driving fast. Although he was driving fast, so Hannah didn't see the man.*

**Ashkan:** *Let me explain. 'So, although, and because.' You know their meanings are different. Examples: Why did you sleep? Because I was tired. You cannot say: Although I was tired.*

In *stage two*, the instructor asked the class to think about the experience for five more minutes to generate more sentences. As they were doing the task, their verbalizations were recorded. The content analysis of the participants' common protocols indicated that they gradually regulated their understanding as they were increasingly involved in reflective thinking. In stage two, after the researcher asked students to think for five more minutes, the sentences expressed by participants were better than in stage one. In the second stage, participants used more meta-cognitive strategies such as planning, controlling, and evaluating their learning activities. As a result, the participants understood the use of connectors in the second stage much better than in the first stage. This finding is in congruence with Karaođlan Yılmaz et al. (2018), indicating that meta-cognitive strategy (used as a result of reflective language learning) contributes to developing learners' self-regulation skills. A sample of participants' protocols in this stage was:

**Ahad:** *Why was Hannah driving fast?*

**Shoresh:** *Let us think about all of them in their context. 'Because' has two different meanings. It means 'since' at the beginning and 'therefore' at the end of sentences. Because (since) Hannah was in a hurry, he was driving fast.*

**Delnia:** *But I think all are different. According to the places..... (pause) ....., Because I was tired, I slept soon. You cannot say...So I was tired, I slept soon. Say, I was tired, so I slept soon. Although I was tired, I didn't sleep soon.*

**Sahar:** *According to what you said, 'because and so' can have the same meaning in one place. 'Because' can mean 'since' in another place....(pause) .... I was tired because I was driving fast. I was in a hurry, so I was driving fast. ...(pause)... Although I was tired, I did not drive fast.*

The participants used new concepts and structures in stage three to state the same ideas. As usual, the verbalizations were recorded for content analysis, revealing that participants learned to use the connectors '*because, although,*' and '*so.*' Thus, the researchers concluded that the more students engaged in reflective activities, the better their self-regulation abilities improved. The few errors observed were related to the slow learning of the students, who showed less self-regulated activities than the strong learners. These findings align with Cheng et al. (2016), implying that reflective students had significantly better self-regulated learning than moderate-reflection and

low-reflection students. This finding verifies the positive effect of reflective performance on self-regulated learning. A sample of the participant's protocols in stage three was:

**Ahmad:** *Why was Hannah driving fast?*

**Saman:** *She was driving fast because she was in a hurry. Because she was in a hurry she was driving fast.*

**Kamil:** *Although she was in a hurry, she was not driving fast. She was not driving fast although she was in a hurry. Although she was not a good driver, she was driving fast.*

**Sina:** *Why didn't Hannah see his friend?*

**Galavish:** *Although he was wearing a dark coat, so Hannah didn't see him at first. Hannah was driving fast, although she didn't see him. Because she was thinking about her driving, she didn't see him.*

In *stage four*, the teacher asked the students to review the learning experience to generalize it to the new learning situation. He asked them to develop a paragraph on "*Describe your study room' using those connectors in their writing.*" The content analysis of their writing revealed that most participants could write a well-developed paragraph on the topic. A sample of the participants' composition by Rezvan in this stage was:

*I live in an apartment with my family members. Our apartment has two rooms. My sister has one room and I also have another room. The length of my room is 3 meters, and its width is 2.5 meters, **so** my room is not big. It has two small windows and one door. There are a lot of pictures on wall. I have a shelf for my books. There is a white board in front of the shelf. **Although** writing on paper is comfortable, I don't like to write on the paper. Moreover, **since** my room is small, it is a little dark. But it has a good view. It is nice to study in my room **because** it is a quiet place.*

As observed from the sample paragraph, the participant could generalize connectors to the new learning situation. Furthermore, the previous learning stages showed that the participants had gradually improved their self-regulated abilities, starting from *stage one* and ending in *stage four*. The qualitative study indicated that



reflective learning improved in all sub-components of self-regulation learning; however, considering the quantitative results, the improvement for *internal motivation, cognitive strategies, and evaluation* was noticeable except for *external motivation and meta-cognitive*.

## 5. Discussion

This study investigated the impact of reflective learning using Kolb's Experiential Learning Cycles on EFL learners' self-regulation. The results indicated that reflective learning significantly impacted learners' self-regulation. The quantitative and qualitative data analyses revealed that reflective learning could boost learners' self-regulation. The study also verified the existence of a significant difference in internal motivation, cognitive strategies, and evaluation posttest scores between the Reflective and Non-reflective groups; however, no significant difference was observed in external motivation and meta-cognitive strategies. This finding could be because reflection mainly targets learners' cognitive abilities rather than affective factors.

The findings are aligned with several studies that reported reflective learning improves self-regulation (Chang et al., 2016; Greenwood, 2010; Karaođlan Yılmaz et al., 2018; Pazhoman & Sarkhosh, 2019; Suraworachet et al., 2021; Wang et al., 2017). The *'themes'* that emerged from protocol data analyses were 'interaction, sharing knowledge, and cooperation,' which helped learners improve their understanding of new concepts and ended in 'gradual improvement' over Kolb's cyclical learning stages.

The study showed that as students gradually engaged in reflective learning, they expressed themselves better in each stage compared with the previous ones. Additionally, the more students thought over the experience, the better they regulated their understanding. This finding aligns with Zimmerman (2001), who asserts that individuals' thoughts are the major elements of self-regulation. The study revealed that learners' self-regulation improves in stages, from stage one of Kolb's reflective learning cycle to stage four. The study also accords with Ghanizadeh (2017), who argues that reflection moderates self-regulation and achievement.

Despite the quantitative findings in which reflective learning indicated no significant impact on metacognitive strategies, the results of the think-aloud protocol

data analysis revealed that participants used more meta-cognitive strategies such as planning, controlling, and evaluating their learning activities; however, weak students showed less self-regulated activities compared to the strong learners. These findings find support from Chang et al. (2016, p.1), who state, “High-reflection students had significantly better self-regulated learning than moderate-reflection and low-reflection students, which implies that reflective performance had a significantly positive effect on self-regulated learning.”

## **6. Conclusion**

The findings highlighted the importance of reflective learning in educational centers for successful learning inside and outside the class. Furthermore, the current study assumes that adopting appropriate reflective activities under a teacher’s guidance, peer collaboration, sharing knowledge, and learning alone can improve learners’ self-regulation, resulting in lifelong learning and better language performance. Besides, the study presented a detailed picture of how reflective learning could enhance the components of self-regulation, showing that using various reflective activities results in skilled and self-regulated learners.

The study also showed that reflective practices can engage learners in learning activities more deeply and lead to self-regulation. Therefore, teachers can use reflective practices and adjust their teaching to language learners’ proficiency levels. Course designers and material developers can also develop activities for reflective learning in textbooks to foster students’ thinking about materials and cultivate their self-regulation. Curriculum planners should also consider the importance of reflection in developing self-regulation and thus try to integrate it into their educational planning.

Another implication of the study is applying the think-aloud protocol procedure in language classes to provide teachers with ample opportunities to delve into the complex nature of language learning and pave the way for them to engage students in learning tasks effectively. It also makes teachers learn about the unique characteristics of individuals in their attempt to recognize their weaknesses and strengths to eliminate problem areas and facilitate learning. Then, by pinpointing learners’ weaknesses and strengths, they would devote more time to using activities and adjust their instruction to the levels of language learners. Finally, using various

reflective activities results in skilled and self-regulated learners.

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## Appendix

### Self-Regulated Language Learning Questionnaire Seker (2016)

		Strongly disagree	Disagree	Agree	Strongly agree
1	I am learning English because my department requires it.	1	2	4	5
2	I am learning English because my future job requires it.	1	2	4	5
3	I am learning English because my teachers require it.	1	2	4	5
4	I am learning English because my society wants it.	1	2	4	5
5	I am learning English because I want to be able to use Technology better	1	2	4	5
6	I am learning English because I want to be successful in my future job.	1	2	4	5
7	I am learning English because I want to communicate with foreigners	1	2	4	5
8	I am learning English because I want to be successful in life	1	2	4	5
9	I am learning English because I want to feel successful at it.	1	2	4	5
10	When studying English, I can use my materials efficiently	1	2	4	5
11	I know what is important to learn when studying English	1	2	4	5
12	When studying English, I find outside school sources to help me.	1	2	4	5
13	When studying English, I work on the tasks in order of Importance.	1	2	4	5
14	When studying English, I plan my study ahead.	1	2	4	5
15	When studying English, I understand the tasks.	1	2	4	5
16	When studying English, I translate everything into Turkish.	1	2	4	5
17	When my English progress drops, I study more.	1	2	4	5
18	When the study material is difficult, I skip it and find an easier one.	1	2	4	5
19	I can find enough time to revise for my English exams.	1	2	4	5
20	When the study material is difficult, I give up studying.	1	2	4	5
21	When the study material is difficult, I ask for assistance.	1	2	4	5
22	When the study material is difficult, I search for alternative ways to understand and complete it.	1	2	4	5
23	I can find enough time to do my homework.	1	2	4	5
24	I can find enough time to study English.	1	2	4	5
25	When studying English, if my friends call me, I give up work and go.	1	2	4	5
26	When studying English, I can concentrate for a long time	1	2	4	5
27	I believe I can overcome my learning difficulties.	1	2	4	5
28	I am satisfied with my English progress.	1	2	4	5
29	I evaluate my exam results.	1	2	4	5
30	I evaluate my overall English progress.	1	2	4	5



**The perceptions of Iranian EFL teachers towards the effect of incorporating different task types on their learners' oral interaction****Article info****Article Type:**

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**Abstract**

There are different task types to improve oral production. The present study investigated the perceptions of Iranian EFL teachers towards the efficiency of incorporating different task types on their learners' oral interaction. The research was performed through the use of qualitative content analysis by using semi-structured interview data. The interview protocol was developed following discussions with experts in the field and previous research. The first group of participants included six Iranian female English teachers selected through convenience sampling. This group was interviewed for the purpose of extracting their perceptions of different task types and the effect of task types on the oral interaction before and after the study. The second group included 120 EFL learners who were recruited using convenience sampling. The researchers transcribed the audio-recorded interview data verbatim for data analysis. Subsequently, qualitative analysis was conducted on the transcriptions of interviews using coding procedures such as open coding, axial coding, and selective coding to recognize recurring patterns, themes, categories, and sub-categories within the collected data. The findings indicated that EFL teachers held highly positive perceptions regarding various forms of form-focused and meaningful tasks, as well as their impact on the oral interaction of EFL learners. This shows that teacher' familiarity with and practice of different types of form focused and meaningful tasks have changed their perceptions of the effectiveness of various task types. Given that oral interaction in general is considered as a big achievement and advantage for EFL learners, it can be concluded that different form focused and meaningful tasks can provide EFL learners with competitive advantages in comparison to their counterparts at homogenous conditions.

**Keywords:** Task-based learning, Task types, Oral interaction, EFL learners

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## 1. Introduction

Language acquisition is an evolving, natural process that adheres to its unique timeline (Foster 1999, p. 69). These concepts have paved the way for the emergence of an alternative method in language instruction called Task-based learning (TBL). TBL is considered as an alternative teaching method to traditional language teaching methods since it favors a methodology that aims at functional communicative language use (Willis, 1996; Ellis, 2003). There are different types of tasks to improve interaction. In Task-based instruction (TBI), where meaning is primary, authenticity, language acquisition and, development are important issues as well (Skehan, 1998). It involves learners in completing meaning and there are overwhelming evidence to use language, as learners should be engaged in meaning. The evidence begins with Corder's (1967) research on interlanguage, followed by the contributions of Krashen (1981), Long (1988), Skehan (1998), and Ellis (2003). For instance, Krashen (1981) argues that the explicit learning of grammar does not significantly impact the development of a functional language system. Long (1988) also provides support for this concept. Skehan (1996) reports that tasks should be designed to make a relation with the real world to enhance the communicative nature and meaning-focused of tasks. The relation to real life makes it more authentic and meaningful. As Ellis (2003) mentions, authentic tasks refer to such tasks whose interactional patterns are similar to those in real life situations. Apart from definitions that focus on the relation of tasks to real life, other ones underscore the pedagogical usefulness of tasks. He also adds that pedagogic tasks are similar to authentic tasks, but they do not certainly aim to have interactional patterns which happen in the real world. According to Ellis (2005), Skehan (1998) acknowledges the previous research on grammatical structure, but he argues that language use is the cornerstone of the learning process, and he explicitly opposes an approach that focuses primarily on the presentation and practice of grammatical form.

Various frameworks have been created to analyze classroom discourse, with one of the most renowned being the Initiation-Response-Feedback (IRF) model introduced by Sinclair and Coulthard in 1975. This model consists of a three-step sequence or a triadic conversation where (I) signifies the teacher's initiation, (R) denotes the students' response, and (F) represents the feedback or further interaction by the teacher. The IRF

The perceptions of...

model is prevalent in various classroom settings and is the primary form of classroom communication across all grade levels. This interaction pattern is considered the most frequent way in which classroom discussions unfold within particular language contexts (e.g., Celce–Murcia, 2007). Many students strive to enhance their performance by utilizing the language correctly. With the emergence of Communicative Language Teaching (CLT), efforts have been made to assess students' proficiency in speaking accuracy speaking. According to Richards, Platt, and Platt (1992), accuracy is described as the skill to generate sentences that are grammatically correct.

Facing some challenges, teachers are exploring some useful methods to create a change in their classrooms. Generally, the problems are caused by language learners' lack of motivation. Maximizing students' motivation and involvement has always been the primary concern of language teachers. It is worth mentioning that applying more communicative methods as TBLT in EFL classes creates a variety for language learners, encourages involvement, and improves their language performance (Khalili Sabet & Tahriri, 2014). Seemingly, implementing task-based approach in teaching English skills have the potentials to shed some light on the issue at stake (Bagheri Masoudzade et al., 2020). The investigation of task-based L2 performance holds significance for L2 theorists and practitioners alike. It is evident that a definitive definition of the term "task" in SLA studies is still unclear (Bygate, Skehan, & Swain, 2001, pp. 9–12). The implementation of tasks in the classroom has sparked debates and differing opinions. Ellis (2004) presents four methods for categorizing tasks: pedagogic, rhetorical, cognitive, and psycholinguistics. These concepts have paved the way for the emergence of an alternative language teaching approach called TBL. L2 researchers have argued that interaction plays a significant role in second language acquisition (SLA) by providing L2 learners with opportunities for meaning negotiation (Long, 1996). This has naturally led to a pedagogical implication that L2 learners should be provided with ample opportunities to interact in L2. There are different task types to improve oral production, the present study investigated the perceptions of Iranian EFL teachers towards the efficiency of incorporating different task types on their learners' oral interaction. To meet the research objective, the following research question has been raised:

- What are the perceptions of Iranian EFL teachers towards the efficiency of incorporating different task types on their learners' oral interaction?

## 2. Review of the Related Literature

Van-Batenburg et al., (2019) examined the effects of three newly developed instructional programs. These programs differed in instructional focus (form-focused vs. interaction strategies-oriented) and type of task (pre-scripted language tasks vs. information gap tasks). Multilevel analyses revealed that learners' enjoyment of EFL oral interaction was not affected by instruction, that willingness to communicate (WTC) decreased over time, and that self-confidence was positively affected by combining information gap tasks with interactional strategies instruction. Besides, regression analyses showed that development in learners' WTC and enjoyment did not have predictive value for achievement in EFL oral interaction, but that development in self-confidence did explain achievement in EFL oral interaction in trained interactional contexts. Likewise, Wang (2019) investigated whether creative L2 tasks contributed to distinct interaction patterns among English L2 adult learners. The study analyzed learners' group interactions on two creative tasks and two controlled tasks. Each of these tasks included one decision-making task and one opinion-exchange task, resulting in four distinct task conditions. Results demonstrated that the creative tasks evoked significantly more instances of meaning negotiation than the controlled tasks. Moreover, the effect of creative tasks on the participants' use of distinct negotiation strategies varied by the types of tasks the participants undertook.

Marashi and Amirabadi (2018) investigated the comparative impact of information-gap and opinion-gap tasks on EFL learners' lexical collocation achievement". Findings indicated that the first group (information-gap group) benefited significantly more than the second group (opinion-gap group) in terms of their collocation achievement. Therefore, it can be concluded that information-gap tasks are more beneficial for the goal of improving learners' lexical collocation achievement. In a relevant study conducted by Rezaei et al., (2017), the effect of different types of tasks was investigated on intermediate Iranian EFL learners' reading comprehension performance. That is to say, the performance of the

The perceptions of...

experimental group in four task types was evaluated in order to find possible differences among reading sets of scores obtained on four task types. Findings of the study revealed that the second task including the activities as reading, noting, and discussing, found to be more effective in enhancing learners' reading skill.

In another study, Fonseca (2016) tried to find which approach was better for language teaching and learning in general, because both PPP (Presentation-Practice-Production) and TBL have their strengths and drawbacks. He attempted to understand whether there was a significant difference in the amount the students talk and interaction when using each model and to determine which worked better for promoting more interaction and output among foreign language learners. The results revealed a significant difference between the amount of student discussion when applying a traditional approach (PPP) and a more communicative approach (TBL). The results also showed that TBL led students to ask questions more naturally. While working under TBL approach, students were not only more active and participated more in the progress of the lesson, but there was also a change of the learning routine which increased students' motivation. Besides, the tasks gave students the chance to practice language that might not have been linguistically accurate but socio-linguistically appropriate, appropriate to the setting, topic, and their English level.

Finally, Zohouri Vaghei, Taghipour Bazargani, and Pourramzan (2015) investigated the degree of effectiveness of two types of tasks including one-way versus two-way tasks on Iranian intermediate EFL learners' collocation competence (lexical collocation learning). What they reported as the main findings of this study was representative of the efficacy of two-way tasks over the one-way tasks. In other words, the findings of this study revealed that incorporating tasks, in particular, two-way task-based activities in EFL classrooms enhanced L2 learners' acquisition of lexical collocations. Rezaeyan (2014) also attempted to provide evidence for the effectiveness of TBLT method on the achievement of EFL female learners in high school. The data were collected through a quasi-experimental experiment. The results of the study indicated that implementation of task-based teaching noticeably influenced on the learners' achievement in high school.

### **3. Methodology**

#### **3.1. Participants**

The participants of this study consisted of two groups. The first group included 6 Iranian female English teachers. They were selected from an English Language Institute in Ilam, based on convenience sampling technique. They had English teaching experience in private institutes for more than 10 years. They possessed Bachelor's and Master's degrees in various disciplines within the field of English. They were in the 40-65 age range. This group was interviewed for the purpose of extracting their perceptions of different task types and the effect of task types and their features on the oral interaction before and after the study. The participants were made aware of the purpose of the study. In addition, they were assured that the data would be kept confidential and their responses to the interview would not affect their job status at all.

The second group of the participants included 120 Iranian female EFL learners of those teachers (i.e., one class from each teacher) in the form of six classes, each consisting of 20 learners. They were studying English at the same Institute in Ilam. The participants were chosen using convenience sampling. Their age range was 18-29. Their first language was Persian. To observe the research ethics, the consent of the learners was obtained for participation in the study. Moreover, they were ensured about anonymity and confidentiality of their personal information. Additionally, the potentials and objectives of the present study were explained to them at the beginning of the study.

#### **3.2. Instruments**

Qualitative content analysis of semi-structured interview data was utilized to enrich this study. The interview protocol was formulated in consultation with experts in the field and informed by previous research. The interview consisted of five open-ended questions on different task types and the effect of task types and their features on the oral interaction. The interviews were conducted in English, with no specific time constraints for each session. Additionally, each interview was conducted one-on-one using social networking platforms such as WhatsApp and Telegram for the participants' convenience. One of the researchers personally conducted all interviews and transcribed them verbatim for data analysis purposes. Next, the transcribed version underwent coding (open, axial, and

The perceptions of...

selective) to identify the recurring patterns, themes, categories, and sub-categories among the obtained data.

In order to ensure the reliability and trustworthiness of the interview data, we utilized low-inference descriptors and conducted member checks. Low-inference descriptors involved directly quoting the interviewees, while member checking entailed verifying interpretations with the interviewees to confirm the accuracy of their statements.

The discourse of interaction in the classes was examined using the Initiation-Response-Feedback (IRF) Model, which was created by Sinclair and Coulthard (1975). The IRF pattern involves the teacher posing a question, the learner responding to the question, and then the teacher giving feedback on the learner's answer. This model represents a structured sequence of teacher-student-teacher turn-taking within the classroom. During the initiation phase, the teacher commonly poses questions that students answer, followed by feedback from the teacher. Initiation may not always be in the form of a question; it could also be a statement or imperative sentence. Its purpose is to initiate a conversation and encourage students to participate. The aim is for this interaction to assist learners in engaging with teachers (Mackey, 2012). Within this framework, learners are able to clarify meaning with teachers, and teachers are expected to support this interaction through confirmation checks, clarification requests, and comprehension checks (Mackey, 2012).

### **3.3. Procedure**

Initially, the study began by selecting the sample from the target population using convenience sampling. Considering the research ethics, at first, consent of the participants was taken by the researchers. Then, the researchers explained the potential advantages as well as the purposes of the study to them. Moreover, all the participants were told that their participation was completely voluntary and there was no obligation. Additionally, anonymity and confidentiality of their personal information were ensured. After sample selection and observing the issues related to the research ethics, the interviews were conducted by one of the researchers from the teachers, utilizing social networks like WhatsApp and Telegram apps to better serve the interviewees. At this stage, this interview was conducted to extract the teachers' perceptions of different task

types and the effect of task types and their features on the oral interaction before the treatment period in order to check them with their post-treatment attitudes. As mentioned earlier, the pre and post interviews were done to compare the EFL teachers' perceptions regarding various forms of form-focused and meaningful tasks, as well as their impact on the oral interaction of EFL learners.

Each interview was taken individually in English. There was no time limit for the interviews so that the interviewees could reveal their full perceptions. All the interview sessions were recorded for transcription and subsequent analysis. The duration of each interview ranged from 20 to 45 minutes. Subsequently, the interviews were transcribed to produce verbatim written data for analysis. The transcribed material was then subjected to coding (open, axial, and selective) in order to identify recurring patterns, themes, categories, and sub-categories within the collected data. To ensure the credibility and reliability of the interview data, low-inference descriptors and member checking were employed. This involved the use of direct quotations from the interviews, enabling the reader to gain insight into the participants' perspectives by directly experiencing their words (Ary, Jacobs, & Sorensen, 2010). Utilizing member checks entails the researcher sharing their data interpretations with the participants to prevent misunderstandings, pinpoint any inaccuracies, and demonstrate respect by allowing participants to review the information written about them. Through member checks, researchers receive input from participants regarding the study's conclusions (Ary, Jacobs, & Sorensen, 2010).

Then, the treatment period started wherein all the six groups participated in 10 regular classes in the Institute. While, three classes engaged in cognitive task types (information gap task, opinion gap, and reasoning gap tasks) as part of the program tailored for this study, the other three were exposed to form focused tasks (pre-scripted role play task) within the last 30 minutes of each class session. In a more specific sense, in the first 60 minutes of class sessions, all the six classes were exposed to the mainstream routine educational materials provided in English classes, wherein *Top-Notch Book* was taught was used. Then in the next 30 minutes, following Ellis (2003), the first group of students were split into pairs in order to engage in an information gap task, a method commonly used in language teaching. In this task, one student was provided with a picture and had to verbally describe it to their partner, who then had to create a



The perceptions of...

drawing based on the description. As an example of opinion gap task (i.e., an activity which requires students to raise questions and topics which also help students' creative thinking), discussion was used. That is, the teacher introduced a topic. Then, the students engaged in a discussion regarding the topic, during which they shared their opinions, emotions, preferences, and so on. The teacher typically made an effort to actively listen to the students' conversations, assisted them in resolving any grammatical issues, provided them with necessary vocabulary and expressions, and supported them in carrying on with their discussions. The students were also tasked with a reasoning gap activity, where they had to derive new information from the given topic through processes of inferencing, deduction, and practical reasoning. They were expected to articulate their thoughts on the topic by providing reasons during their discussion.

To expose the students to the pre-scripted role, play task (i.e., an exercise wherein students can pretend to be someone else or act out a certain scenario), the language learners of the second group (the students of other three classes) were divided into pair groups. Then, they were provided with audio-recorded materials to which they were to listen. Next, they were asked to act out and play the role of each individual according to the tape. During the treatment period, all the six classes were observed for three consecutive sessions by the researcher as a non-participant observer. Finally, the researcher once more conducted the interviews via social media platforms such as WhatsApp and Telegram applications to extract teachers' perceptions regarding different task types and the effect of task types and their features on the oral interaction after the treatment period. The interview questions and procedure followed for the interview were the same as that used for pre-treatment interview.

For data analysis, the audio-recorded interview data were transcribed verbatim. Subsequently, the transcriptions of interviews underwent qualitative analysis through coding techniques such as open coding, axial coding, and selective coding to pinpoint recurring patterns, themes, categories, and sub-categories within the collected data. Initially, the data was carefully read and re-read to structure it accordingly (Ary & et al., 2014). Following the organization of data, the subsequent step involved coding the raw data to reduce them into manageable codes, resulting in the emergence of a significant number of codes. After the completion of coding the transcripts, the subsequent task

involved categorizing similar codes under specific categories. To validate the categorization process, two additional colleagues cross-checked the codes to confirm their alignment with the designated categories. Finally, selective coding was utilized to develop a grounded theory by analyzing the connections that arise between categories during axial coding (Creswell, 2013). These outlined procedures culminated in the identification of the primary themes.

#### **4. Findings**

The themes derived from the interviews prior to the study were as follows:

1. Ambiguity of teachers' role in task-based language teaching
2. Difficulty of tasks implementation in low-proficiency groups
3. Challenge of using tasks for different aspects of English language
4. Difficulty of learners' performance evaluation through tasks
5. Teachers' unfamiliarity with different kinds of tasks

In what follows, each theme is presented along with some excerpts from the interviewees' attitudes.

##### ***Ambiguity of teachers' role in task-based language teaching***

As stated by teacher 3:

Teachers' role is not explicitly determined in task-based language teaching. This causes difficulties for teachers in implementing task-based language teaching.

According to T4:

The biggest problem is that teachers' role is not well clarified. It is really vague to teachers.

##### ***Difficulty of tasks implementation in low-proficiency groups***

As put by T1:

Language proficiency of some learners is very limited. This leads to lack of cooperation on their part in performing the tasks.

According to T5:

The perceptions of...

A main concern is learners' low proficiency level. This makes implementing tasks more difficult for teachers.

### ***Challenge of using tasks for different aspects of English language***

According to T2:

One thing which is very dissatisfying is using appropriate tasks to teach some dimensions of English. I myself cannot find good jigsaw tasks to teach phrasal verbs.

As perceived by T1:

Tasks do not lend themselves well to teach some parts of language including proverbs, idioms, etc.

### ***Difficulty of learner evaluation through tasks***

T2 stated that:

Students' learning and performance cannot be easily evaluated by tasks. It seems that tasks are more appropriate for teaching than assessment procedures.

As mentioned by T6:

Inapplicability of tasks in evaluation of students' learning is the main challenge of using tasks. Even if it is possible to use tasks for assessment purposes, it will be very time-consuming.

### ***Teachers' unfamiliarity with different kinds of tasks***

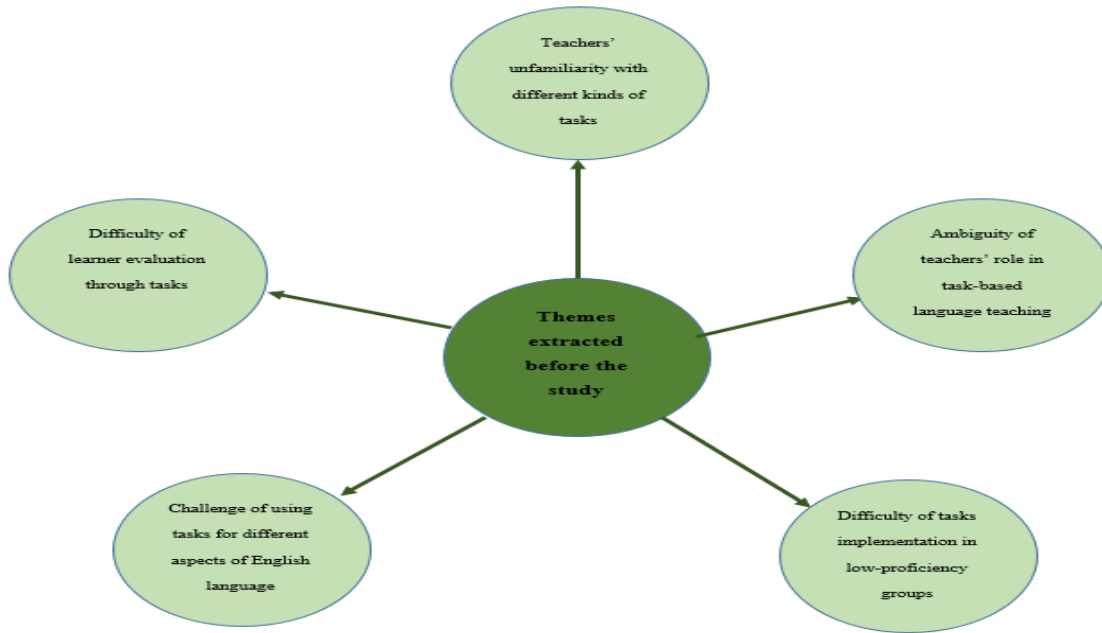
According to T4:

Many teachers are not familiar with tasks and how to implement it in their classes. Thus, they cannot benefit from the potentials of different types of tasks. It is recommended that authorities design consciousness-raising programs for teachers to make them aware of task-based language teaching principles.

As mentioned by T2:

A big challenge for using tasks is teachers' unfamiliarity with them. That is why they still follow traditional teaching methods in line with transmission view of teaching.

The above themes are demonstrated in Figure 1.



**Figure 1.** Themes extracted before the study

Additionally, the interviews yielded the following themes regarding the perceptions of the interviewees post-study:

1. Using tasks makes learners more motivated.
2. Using tasks makes learners more engaged and active.
3. Using tasks increases learner communicative ability.
4. Using tasks leads to more negotiations among learners.
5. Using tasks reduces teacher dependency on textbooks.
6. Using tasks enhances learner meaning making.
7. Using tasks makes learners goal-oriented.
8. Using tasks makes classes more learner-centered.
9. Using tasks makes language teaching more authentic.
10. Using tasks enhances learner autonomy.

In what follows, each theme is presented along with some excerpts from the interviewees' reflections.

The perceptions of...

### ***Using tasks makes learners more motivated***

As explained by T1:

Using tasks contributes to enhancement of learners' motivation. Learners become more and more eager to learn English as a result of using tasks in English classes.

In the words of T4:

Experiences and empirical studies support the effectiveness of using tasks on learners' motivation. This is of high importance given that motivation plays a significant role in English learning.

### ***Using tasks makes learners more engaged and active***

In the saying of T3:

In my opinion, as learners are exposed to tasks, their engagement is increased. They participate more in class activities.

As put by T5:

I believe that students' involvement in class activities is corroborated with using tasks in classes. They become more active in classes where tasks are used. This is not the case in mainstream classes.

### ***Using tasks increases learner communicative ability***

As stated by T2:

Because using tasks necessitates communicative activities by learners, it leads to strengthening their communication skills. This has been documented by researchers in the field.

In the perception of T5:

A clear advantage of using tasks is its emphasis on communication ability. This is a big point in today's global village in which communication talks in different areas.

### ***Using tasks leads to more negotiations among learners***

According to T3:

What is interesting about using tasks is that it involves negotiation of meaning among learners. In most of the tasks, the focus is on meaning negotiation.

As mentioned by T4:

When students are involved in various tasks, they are required to negotiate with their peers to reach the task outcome. This negotiation with group mates has positive effects on language skills of learners.

***Using tasks reduces teacher dependency on textbooks***

As put by T1:

I think a strong point about tasks is that teachers become less dependent on textbooks in teaching English. Textbooks, as I see them, to some extent deskill teachers. I know quite a few teachers whose creativity in teaching has been suffocated due to their sheer dependency on textbooks.

As commented by T3:

I believe hiring tasks requires less attention to the fixed principles of textbooks. By nature, utilizing tasks means putting textbooks aside. Therefore, teachers feel free to practice new principles of task-based language teaching.

***Using tasks enhances learner-meaning making***

According to T3:

Meaning is the main component of tasks. More specifically, searching for meaning is an inseparable aspect of almost all kinds of tasks. Therefore, learners become rich in meaning making by using tasks.

As mentioned by T5:

Tasks are more oriented towards meaning-based learning rather than form-based one. To rightly do different kinds of tasks, learners should make meaning. This causes remarkable improvements in their meaning making ability.

***Using tasks makes learner goal-oriented***

As perceived by T6:

The perceptions of...

Since tasks are purposeful activities which reach an end, the role of goals is dominant in them. Consequently, using tasks makes goals noticeable in the minds of learners.

As stated by T2:

Through using tasks, it is taught to learners that everything should be terminated with a goal. Ends of tasks give meaning to tasks. In this way, learners become oriented towards having a goal.

### ***Using tasks makes classes more learner-centered***

In the words of T1:

In classes where tasks are used, teachers are not at the center as is the case in traditional classes. Their role changes from class boss to guide. In contrary, the role of learners is more significant in using tasks. Language teachers transition from being the focal point of the classroom to becoming facilitators when tasks are successfully carried out.

According to T4:

There is no place for teacher-centeredness in using tasks. Tasks are here to change the fixed structure of classes in which teacher is everything. In using tasks, classes are turned around students' involvement, cooperation, participation and engagement.

### ***Using tasks makes language teaching more authentic***

As stated by T2:

When using tasks, real-life situations are reconstructed. At least, this is sought as an aim in task-based language teaching, even if not fully achieved. This makes task-based classes more authentic.

As put by T6:

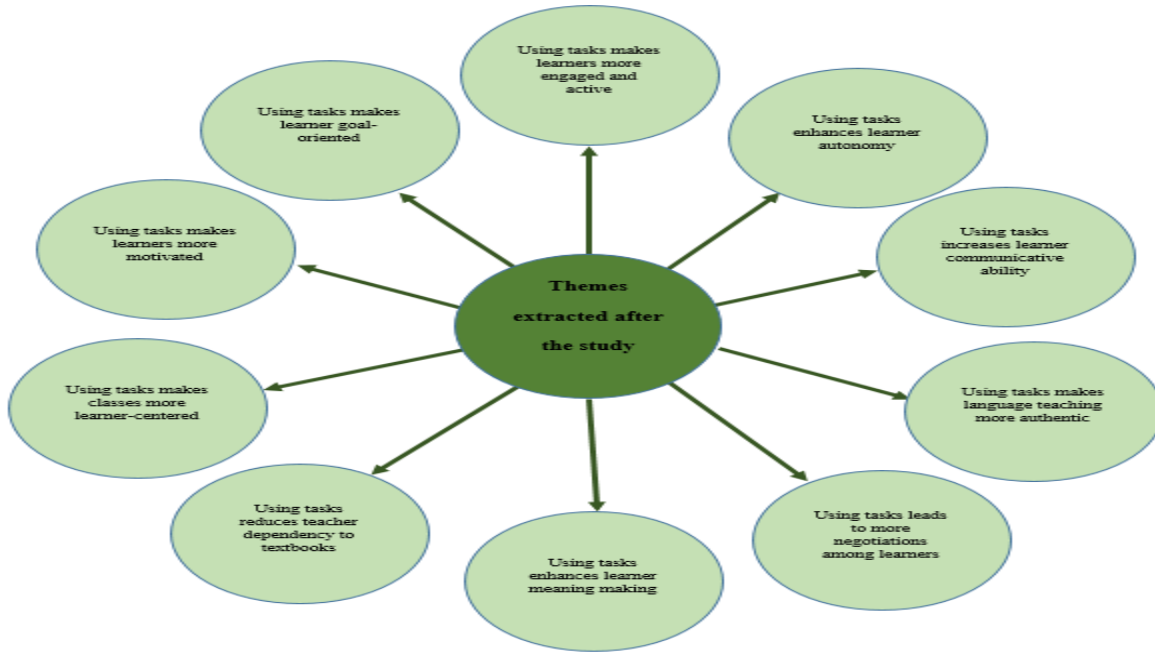
Tasks are concerned with putting students in simulations of real-life situations. This is done so that learners can cope with language use situations to which they are confronted out of classes.

### ***Using tasks enhances learner autonomy***

The following opinion was held by T1:

Thanks to using tasks, learners' dependency on teachers is reduced. They become more independent and powerful by having negotiations with classmates. I believe that using tasks makes them more autonomous.

These themes are shown in Figure 2.



**Figure 2.** Themes extracted after the study

## 5. Discussion

The themes identified in the interviews reflected the perspectives of the participants prior to the commencement of the study: Ambiguity of teachers' role in task-based language teaching; difficulty of tasks implementation in low-proficiency groups; challenge of using tasks for different aspects of English language; difficulty of learners' performance evaluation through tasks; and teachers' unfamiliarity with different kinds of tasks. Additionally, the interviews yielded the following themes regarding the perceptions of the interviewees post-study: Using tasks makes learners more motivated; using tasks makes learners more engaged and active; using tasks increases learner communicative ability; using tasks leads to more negotiations among learners; using tasks reduces teacher dependency on textbooks; using tasks enhances learner meaning making; using tasks



The perceptions of...

makes learners goal-oriented; using tasks makes classes more learner-centered; using tasks makes language teaching more authentic; and using tasks enhances learner autonomy.

Consistent with this study, Jasim (2011) enumerated the following perceptions about TBLT as perceived by English teachers: Lack of clarity in terms of teachers' role; inapplicability of TBLT for some English skills; difficulty of assessment with TBLT; teachers' low knowledge of TBLT; TBLT contribution to motivation; and TBLT emphasis on communication. Also, in line with the present study, Xiongyong and Samuel (2011), and Hadi (2013) reported that English teachers perceive that TBLT has a positive effect on communication ability and motivation of EFL learners. Moreover, similar to the present study, Pohan, Andhin, Nopitasari, and Levana (2016) referred to passive roles of textbooks in TBLT, the emphasis on meaningful learning, and goal-orientedness of tasks as perceptions of teachers about TBLT. Another research that supports the findings of the current study is the investigation conducted by Jones (2020), which found that teachers perceive TBLT as empowering learners and promoting authentic language use. Additionally, in alignment with our study, Liu, Mishan, and Chambers (2018) contended that teachers believe TBLT fosters learner autonomy.

In justifying the results, it is worth noting that implementing any factor can probably lead to some changes in attitudes toward it. In fact, the process of implementation in itself, regardless of how and why it is implemented, can unravel some new features, aspects and dimensions of that factor to the administrators. This is where the differences between theoretical and practical aspects of some notion come into play. Practice and experience have the potential to add effectively to one's knowledge base in an explicit or implicit way. Moreover, it can be argued that perceptions of the teachers are rooted in their knowledge base on TBLT. Mostly, the perceptions extracted from the interviews are in the same direction with the theoretical background of TBLT. For instance, as stated in the theoretical background of TBLT, TBLT seeks to develop communicative activities and improve learners' authentic language utilization (Jeon & Hahn, 2006). In addition, as put by Richards and Rodgers (2001), TBLT is an approach which calls for active engagement of learners to accomplish an objective or finish a task. Moreover, the argument made for TBLT is that tasks are purposeful, and requires learners' interaction. Tasks have a clear

objective which shows that communication has been successful. To achieve the objective of tasks, learners should negotiate meaning and mention their own opinions (Larsen-Freeman & Anderson, 2011).

## **6. Conclusion**

The study's conclusion indicates that EFL teachers held highly positive perceptions regarding various forms of form-focused and meaningful tasks, as well as their impact on the oral interaction of EFL learners post-treatment. This shows that teacher' familiarity with and practice of different types of form focused and meaningful tasks changed their perceptions of the effectiveness of various task types. The other conclusion which can be made from the results is that different kinds of tasks have the potential to impact EFL learners' oral interaction specifically in terms of IRF pattern. Given that oral interaction in general is considered as a big achievement and advantage for EFL learners, it can be concluded that different form focused and meaningful tasks can provide EFL learners with competitive advantages in comparison to their counterparts in similar conditions.

As the implication of the findings for EFL learners, they can take advantage of meaningful and form-focused tasks in dealing with their problems. To this end, they can actively participate in different meaningful and form-focused tasks in EFL classes to improve their oral interaction skill. Moreover, they can self-practice different types of tasks in individual, paired or group works outside EFL classes. Moreover, curriculum developers can take useful insights from the findings and apply them in planning future EFL materials and curricula. More specifically, they can develop future EFL curricula so that teachers and instructors use different types of meaningful and form-focused tasks in their EFL classes.

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**Modeling teacher emotionality and identity through structural equation modeling (SEM): English as a Foreign Language (EFL) teachers in focus****Article info****Article Type:**

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**Abstract**

The term 'teacher emotions' is defined as feelings and affections teachers experience in their professional practice. Teacher identity, as the beliefs, values, and perceptions that teachers hold about themselves and their roles, holds paramount importance in the realm of education as it profoundly shapes the teaching and learning process. This study sought to delve into modeling EFL teachers' emotionality and identity. In so doing, a quantitative correlational design was used. The participants employed included 200 Iranian male and female EFL teachers who were selected from different language institutes of Iran through convenient sampling. To collect the data, the Teacher Emotionality Questionnaire and the Revised Identity Style Inventory (ISI-5) were used. To analyze the data, Structural Equation Modeling (SEM) was run. As unveiled by the results, positive emotionality (i.e., enjoyment, responsiveness, emotional support and flexibility) was a direct and significant predictor of informational identity. Positive emotionality was a negative and significant predictor of diffuse-avoidant identity. Negative emotionality (i.e., anxiety and burnout) was a significant and negative predictor of informational and normative identity. Negative emotionality was a significant and positive predictor of diffuse-avoidant identity. Congruent with the findings, it is concluded that Iranian EFL teachers are exposed to different kinds of positive and negative emotions. The results also lead to the conclusion that diffuse-avoidant identity aspect is weak in teachers who experience positive emotions. In sum, it is concluded that emotionality and identity aspects are interrelated in EFL teachers. EFL teachers should make attempts to experience more positive emotions than negative ones so that their identity is developed in a positive and authentic direction.

**Keywords:** Emotionality, Identity, Teacher Emotionality, Teacher Identity

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## 1. Introduction

Emotions refer to complex psychological and physiological reactions to a variety of internal and external factors (Hodges, 2015). Emotions have a dominant role in behaviors, thinking, and general well-being of human. Although several scholars (e.g., Ekman, 1992; Gross, 1998; LeDoux, 1996) have defined emotions differently, there is no definite definition for emotions in the literature. In a popular definition by Ekman (1992), emotions are defined as a short and automatic reaction to a particular event that makes the organism ready for an adaptive response. Emotions are helpful for us in navigating our surrounding environment. As defined by LeDoux (1996), emotions are responses to a threat or reward that are often accompanied with the body activation.

As a sub-category of emotions, teacher emotions refer to different feelings and affections experienced by teachers within their professional life (Uitto et al., 2015). Such emotions can be positively or negatively experienced by teachers during their engagement in their educational work. Teacher emotions are an inevitable part of teaching profession and affect construction of learning experience in teachers and learners. Accordingly, exploring these emotions is an important dimension of educational research and activities (Chen, 2016) because emotions can significantly affect teacher effectiveness, student learning, and general classroom outcomes.

Closely related to teacher emotions, research on English as a Foreign Language (EFL) teacher emotions as a new area date back to the last decade (Gkonou et al., 2020). It was recently that teacher emotions became the center of focus of researchers in the field of English Language Teaching (ELT) (White, 2018). Before that, the main focus of ELT researchers was cognitive factors influencing EFL teaching/learning. This emotional twist (De Costa et al., 2019) in EFL research made the ground ready for exploring emotional factors that impact EFL teaching (White, 2018). As a prevalent theme in teacher emotions research, emotional labor can be referred to. As a leading figure in this regard, Hochschild (1983) referred to emotional labor as a construct relevant to the general service industry. However, in the recent years, researchers have used this framework in studies on EFL teachers based on the belief that it leads to teachers' emotional burnout, attrition, and exhaustion (Acheson & Nelson, 2020), that influence teachers' organizational commitment, professional satisfaction, and self-confidence



(Nazari & Karimpour, 2022).

A main eye-catching problem in this regard is that although teacher emotions deeply influence EFL teaching, they are still conceived as the opposite of cognition or reason. This partially accounts for lack of sufficient attention by EFL researchers to this research area (Agudo, 2018). However, in fact, as put by Hargreaves (1998), teachers' emotions are the building blocks of teaching. Thus, delving into teacher emotions can solve several teaching problems. In the same vein, Agudo (2018) believed that teaching is an emotionally-rich profession and investigating teachers' emotionality in teaching is what provides us with useful insights into how teachers address emotionally-demanding classroom contexts. Therefore, probing teacher emotions is of significance in the field of ELT (e.g., Chen, 2016; Han & Yin, 2016; Uitto et al., 2015). This significance shows itself more prominently when it is noted that teacher emotions can impact teachers' approach in teaching. More importantly, positive emotions are positively correlated with effective teaching practices, innovative teaching strategies, and positive class communication (Burić & Moe, 2020; Chen, 2019; Wentzel, 2016). Moreover, teacher emotions directly affect student learning because students are more willing to learn in an emotionally positive classroom environment where teachers demonstrate enthusiasm, care, and empathy (Frenzel et al., 2018). This is while, according to Glazzard and Rose (2019), negative teacher emotions like stress and frustration can prevent student learning.

What is more, a worth-noting issue in the literature on teacher emotionality is the relationship between teacher emotionality and identity, as focused by some researchers (Day, 2018). Teacher identity holds paramount importance in the realm of education as it profoundly shapes the teaching and learning process. The beliefs, values, and perceptions that teachers hold about themselves and their roles significantly influence their instructional methods, interactions with students, and overall classroom dynamics. This, in turn, has a direct impact on students' educational experiences and outcomes.

Literature shows that a robust teacher identity can positively impact instructional practices (Golzar, 2020). According to Berzonsky's Identity Styles Theory (1988), individuals take one of three primary identity styles: informational, normative, and diffuse-avoidant, each representing distinct approaches to processing and merging identity-

related information. The informational identity style is represented by a proactive involvement in identity-related information, in which people search and critically examine different sources of identity-related knowledge (Berzonsky, 1988). The normative identity style is characterized with sticking to social norms and expectations in developing one's identity (Berzonsky & Kuk, 2022). The diffuse-avoidant identity style is associated with a dissociation from identity exploration, and avoidance towards identity-related matters (Berzonsky, 1988).

Day (2018) highlights that teachers' emotions play a pivotal role in shaping their professional identity, impacting their beliefs, values, and interactions within the educational context. Research in this area reveals how emotions are intertwined with the development and expression of teacher identity. As Frenzel et al. (2016) suggest, teachers' emotional experiences in the classroom are intertwined with their self-concept and professional identity. Positive emotions, such as joy or enthusiasm, can reinforce a teacher's sense of efficacy and commitment to their role. Conversely, negative emotions, like frustration or burnout, can challenge and even erode their professional identity. Therefore, the emotional experiences of teachers can both bolster and disrupt the formation of their teacher identity.

Teacher identity is also shaped by the emotional labor required in the profession. Emotional labor refers to the effort teachers invest in managing their emotions to meet the expectations of their role (Day, 2018). As observed by Hargreaves (2000), the emotional labor involved in teaching can lead to a dissonance between the teacher's authentic self and their professional persona. This dissonance can impact how teachers perceive their identity, causing tension between their true emotions and the emotions they display in the classroom. As mentioned by Fried et al. (2015) emotionality can influence a teacher's pedagogical practices and interactions with students. Teachers who are emotionally attuned to their students can create more supportive and empathetic learning environments. The work of Sutton and Wheatley (2003) highlights the importance of emotional intelligence in teaching. Teachers who understand and manage their emotions effectively can build stronger teacher-student relationships, which can, in turn, enhance the learning experience and student outcomes.

To sum up, Zembylas (2003) indicates that the relationship between teacher emotionality and identity is intricate and bidirectional. Emotions can impact the development and expression of teacher identity, affecting a teacher's self-concept, emotional labor, and pedagogical practices. Therefore, recognizing this relationship is crucial for educators, teacher preparation programs, and policymakers, as it can inform strategies for supporting teachers in developing positive and authentic professional identities while managing the emotional demands of their role. Although, as explained above, the relationship between teachers' emotionality and their identity has been documented in the literature, this is a research area which suffers research scarcity. With a view to the paramount role of emotionality and identity in teachers' teaching effectiveness, professional development and job satisfaction, this scarcity can impose heavy costs on EFL teaching systems via the mediating role of such factors as teachers' self-concept, emotional labor, and pedagogical practices. In To fill this gap, this study sought to explore what quantitative model of teacher emotionality and identity finds fit indices through running SEM through the following research question:

1. What quantitative model of teacher emotionality and identity finds fit indices through running SEM?

## **2. Review of the Related Literature**

Through reviewing the existing literature, the researchers found that just few studies have addressed the relationship between teachers' emotionality and identity which are presented in this section. Esmaeili et al. (2019) conducted a study to explore how the emotions experienced by EFL instructors affect different aspects of their identity development. Using a Constant-Comparative Approach, they analyzed data gathered from interviews, classroom observations, and teachers' diaries. The study revealed that teachers' emotional experiences significantly impact their professional identity and instructional approaches, and these effects vary across different educational settings. Nazari and Karimpour (2022) conducted a study that explored the impact of emotional labor on the development of English language teacher identities in Iran, using an activity theory framework. The analysis of the data revealed that teachers' emotional labor and

identity formation were influenced by specific institutional characteristics in three distinct ways. Firstly, teachers grappled with emotional labor when they had to navigate conflicts stemming from their personal experiences and the identities they embraced. Secondly, they encountered emotional labor when balancing their commitment to students with externally imposed identities. Lastly, teachers experienced emotional labor when aligning their agency with identities that faced resistance.

Further, Nazari et al. (2023) conducted a study that delved into the emotional experiences of Young Learner English (YLE) teachers in Iran and how these emotions influenced the development of their professional identities. The researchers collected data using a variety of methods, including semi-structured interviews, classroom activity observations, post-instruction discussions, and the application of narrative frames. The analysis of the collected data revealed that the emotions and professional identities of the teachers were intricately shaped by a range of ecological factors operating at the micro, meso, and macro levels within the teaching environment. These ecological factors had diverse effects on the emotional challenges faced by the teachers and also played a pivotal role in shaping their professional identities in relation to the discourses, individuals involved, and unique aspects of teaching YLE.

Ordoño's (2023) master's thesis focused on investigating how the evolvement and divergent contexts shape the emotions, emotional labor, and identity of university EFL teachers throughout various stages of their careers in Japan. Specifically, this research study sought to delineate (1) the impact of sociocultural, institutional, and individual contexts on the emotions, emotional labor, and identity of tertiary-level EFL teachers, (2) the potential interconnectedness of the concepts of emotion, emotional labor, and identity, and (3) the disparities in emotions, emotional labor, and identities among novice, mid-career, and experienced teachers. Employing an explanatory sequential research design, this study collected quantitative data utilizing The Emotional Labor of Teaching Scale, the English Language Teacher Professional Identity Scale. Moreover, the qualitative data were collected through the use of semi-structured interview questions. Data were collected over a span of two months from 35 tertiary-level EFL teachers from diverse contexts. This investigation contributes to theoretical research on the influence of contextual factors on teachers' identities and emotions, as well as practical discussions

on how to mitigate emotional labor to enhance teacher well-being.

### 3. Methodology

Congruent with the objective of the present study, a quantitative correlational design was utilized. This type of design is appropriately used for modeling the relationship between two or more variables (Ary et al., 2010).

The participants employed for this study included 200 Iranian Persian-speaking EFL teachers (150 males and 50 females) who had more than 10 years of EFL teaching experience at different language institutes of Iran. They were selected through convenience sampling. Their education level included B.A. and M.A., and Ph.D. in different branches of English language field including Applied Linguistics and English Literature and Language. Their age range was 40 to 55. Demographic features of the participants are shown in Table 1.

**Table 1.**

*Demographic Features of the Participants*

No.	200
Gender	150 males & 50 females
Age	40 to 55
Native Language	Persian
Major	Applied Linguistics and English Language and Literature
Experience	More than 10 years
Education	100 B.A., 80 M.A., 20 Ph.D.

To assist research ethics, written consent was taken from the participants for their cooperation in this study. Moreover, they were ensured about anonymity and confidentiality of their personal information.

To collect the required data, the EFL Teachers' Emotionality Questionnaire (Appendix A) was developed by Mortazavi et al. (in-press) in 30 Likert items in six subscales including enjoyment, anxiety, burnout, responsiveness, emotional support, and flexibility was employed. The Cronbach's Alpha reliability of the questionnaire was

calculated .70 and its construct validity was supported by exploratory factor analysis (Mortazavi et al., in-press). As mentioned in the previous lines, it is a researcher-made questionnaire whose reliability and validity were confirmed through Cronbach's Alpha test and exploratory factor analysis. According to the results of exploratory factor analysis, all 30 items of this questionnaire were adequately and sufficiently loaded on their respective factors including 1. Enjoyment, 2. Anxiety, 3. Burnout, 4. Responsiveness, 5. Emotional Support, and 6. Flexibility. The participants' identity aspects were assessed with the Revised Identity Style Inventory (ISI-5) (Appendix B), developed and validated by Berzonsky et al. (2013). In this version, 27 items are scaled on a five-point Likert scale from 1 (not at all like me) to 5 (very much like me). It consists of three sub-scales including informational identity (9 items), normative identity (9 items), and diffuse-avoidant identity (9 items). Berzonsky et al. (2013) reported the Cronbach's Alpha reliability of the ISI-5 .77 and confirmed its construct validity through factor analysis.

Data collection procedure was launched with selecting the sample, and briefing them on the aim of the study. Thereafter, the Google links of the EFL Teachers' Emotionality Questionnaire and the ISI-5 were sent to the participants via social networks including WhatsApp and Telegram to be filled. In order to model the relationship between EFL teachers' emotionality and identity aspects, structural equation modelling (SEM) available in the AMOS 24 package was used.

#### **4. Findings**

In order to answer the research question 'What quantitative model of teacher emotionality and identity finds fit indices through running SEM?', as mentioned above, SEM was run. Before presenting the results, it is worth noting that in this analysis, enjoyment, responsiveness, emotional support and flexibility were considered as indicators of positive emotionality; and anxiety and burnout were considered indicators of negative emotionality. Thus, the model had two latent predictors: Positive and Negative Emotionality. Identity aspects (informational, normative and diffuse-avoidant) were considered as dependent variables, and entered into the model as observed variables.

After checking skewness and kurtosis for univariate normality and Mardia's coefficient to ensure multivariate normality assumption, the maximum likelihood estimation method was used to run the model. Table 2 presents the results of the measurement part of the model of EFL teachers' emotionality.

**Table 2.***The Measurement Model of EFL Teachers' Emotionality*

Latent Variables	Indicators	B	$\beta$	S.E	T	P
Positive Emotionality	Enjoyment	1*	0.83			0.0001
	Responsiveness	1.06	0.64	0.10	11.58	0.0001
	Emotional support	1.35	0.70	0.13	13.05	0.0001
	Flexibility	0.98	0.87	0.07	10.58	0.0001
Negative Emotionality	Anxiety	1	0.91			0.0001
	Burnout	0.83	0.74	0.06	12.46	0.0001

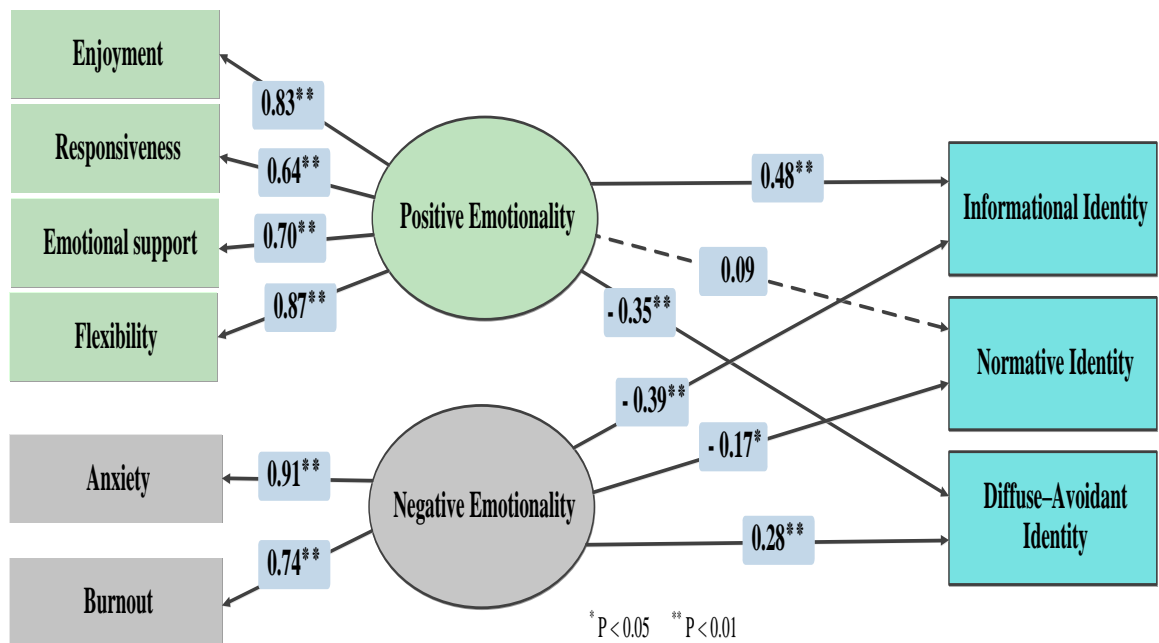
As seen in the Table 2, enjoyment, responsiveness, emotional support and flexibility are valid and good indicators of positive emotionality. The range of standardized coefficients ( $\beta$ ) is between 0.64 and 0.83. In addition, anxiety ( $\beta=0.91$ ) and burnout ( $\beta=0.74$ ) are valid indicators of negative emotionality. Table 3 shows the results of the structural part of the model for predicting EFL teachers' identity aspects by their emotionality.

**Table 3.***The Structural Model of EFL Teachers' Emotionality and Identity*

Predictors	Dependent Variables	B	$\beta$	S.E	T	P
Positive Emotionality	Informational Identity	0.57	0.48	0.13	9.16	0.0001
	Normative Identity	0.13	0.09	0.08	2.43	0.07
	Diffuse–Avoidant Identity	-0.44	-0.35	0.11	-8.29	0.0001
Negative Emotionality	Informational Identity	-0.78	-0.39	0.05	-8.96	0.0001
	Normative Identity	-0.37	-0.17	0.19	-4.76	0.03
	Diffuse–Avoidant Identity	0.63	0.28	0.29	7.13	0.001

As indicated in the Table 3, positive emotionality was a direct and significant predictor of informational identity ( $\beta = 0.48$ ,  $P = 0.0001$ ). Positive emotionality was a

negative and significant predictor of diffuse-avoidant identity ( $\beta = -0.35$ ,  $P = 0.0001$ ). Positive emotionality was not a significant predictor of normative identity ( $\beta = 0.08$ ,  $P = 0.07$ ). On the contrary, negative emotionality was a significant and negative predictor of informational ( $\beta = -0.39$ ,  $P = 0.0001$ ) and normative ( $\beta = -0.17$ ,  $P = 0.03$ ) identity. Negative emotionality was a significant and positive predictor of diffuse-avoidant identity ( $\beta = 0.28$ ,  $P = 0.0001$ ). The visual model of standardized path coefficients between variables is presented in Figure 1.



**Figure 1.** The structural equation model of EFL teachers' emotionality and identity

As illustrated in the Figure 1, all items have acceptable factor loadings that are significant at the 0.01 level. To examine how well the proposed model fits with data, the measures of the fit indices of the model were examined and presented in Table 4.

**Table 4.**

*Fit Indices of Structural Equation Model of EFL Teachers' Emotionality and Identity*

	$\chi^2/df$	GFI	AGFI	CFI	TLI	RMSEA	PCLOSE
Fit indices	2.19	0.95	0.90	0.92	0.93	0.07	0.31
Acceptable fit indices	< 3	> 0.90	> 0.90	> 0.90	> 0.90	< 0.08	> 0.05



According to the Table 4, the result of dividing the  $\chi^2$  by the degrees of freedom as an absolute global goodness of fit index was 2.19. The goodness of fit index (GFI) and adjusted goodness of fit index (AGFI), which indicate the amount of variance and covariance explained by the model, were 0.95 and 0.90, respectively. The comparative fit index (CFI), which compares the proposed model with the baseline model, was 0.92. The value of the Tucker-Lewis index (TLI) which is a non-normed fit index, was 0.93. The Root Mean Square Error of Approximation (RMSEA) and the P of Close Fit (PCLOSE) are 0.07 and 0.31, respectively. All fit indices of the model are at an acceptable level and the model has a good fit.

## 5. Discussion and Conclusion

This study aimed to probe what quantitative model of teacher emotionality and identity finds fit indices through running SEM. As unveiled by the results, positive emotionality (i.e., enjoyment, responsiveness, emotional support and flexibility) was a direct and significant predictor of informational identity. Positive emotionality was a negative and significant predictor of diffuse-avoidant identity. Positive emotionality was not a significant predictor of normative identity. Conversely, negative emotionality (i.e., anxiety and burnout) was a significant and negative predictor of informational and normative identity. Negative emotionality was a significant and positive predictor of diffuse-avoidant identity.

The findings are congruent with the studies by Esmaili et al. (2019), Nazari and Karimpour (2022), and Nazari et al. (2023) wherein it was proved that EFL teachers' identity formation is significantly interacted and correlated with their emotional experiences.

To explain the results, the self as an important component of identity and identity formation has an emotional dimension. That is why some earliest identity theorists (e.g., Burke, 1991) recognized that emotions emerged out of the identity process. Moreover, acceptance or lack of acceptance of one's thinking or behaviors by others which constitutes an inevitable part of identity formation arises some negative or positive emotions in individuals which in turn lead to new behaviors or thinking styles in the future. This can also account for the significant prediction power of emotions in predicting identity

aspects. This argument is so strong that it has been put forth as a thesis in identity theory: others' reactions influence our emotions and emotions stimulate new behaviors or thoughts (McCall & Simmons, 1978).

The results can also be interpreted referring to the thesis that identity non-verification arouses some negative emotions which become the roots of new negative behaviors or actions in new situations which in turn serve as the building blocks of new self or identity dimensions (Burke & Stets, 2009). Conversely, identity verification triggers positive emotions which encourage new positive identity aspects in future events. In this sense, the relationship between emotions and identity is dynamic, complex, non-linear and mutual. Emotions emerge from fulfilling (or failing to fulfill) the behavioral expectations tied to an identity and simultaneously trigger new behaviors connected to an identity.

Moreover, the self-meanings that define or guide an identity are intermingled with emotions which are positive or negative in nature. Individuals attach different meanings to different events in different situations. These meanings are rooted in their emotions and cannot be conceived as separate from them. Meaning attachment and emotions are interwoven. Last but not least, the role of others in identity formation can account for the relationship between identity and emotions. That is, the ties between identity and emotions (positive or negative) "is rooted in Cooley's looking glass self in which individuals feel pride or shame depending upon whether they think others evaluate them in a positive or negative way" (Stets & Trettevik, 2020, p. 36).

Congruent with the findings, it is concluded that Iranian EFL teachers are exposed to different kinds of positive and negative emotions. The positive emotions they experience include enjoyment, responsiveness, emotional support and flexibility. Moreover, anxiety and burnout are experienced by them in the form of negative emotions. It is also concluded that it is more likely that those teachers who experience more positive emotions (i.e., enjoyment, responsiveness, emotional support and flexibility) than negative ones (i.e., anxiety and burnout) benefit from informational identity aspect. Furthermore, the results lead to the conclusion that diffuse-avoidant identity aspect is weak in teachers who experience positive emotions. In accordance with the results, informational and normative identity is not strong in the teachers who suffer from anxiety

and burnout. In this group of teachers, diffuse-avoidant identity is salient. In sum, it is concluded that emotionality and identity aspects are interrelated in EFL teachers.

The results have some pedagogical implications for EFL teachers, teacher preparation programs, and policymakers. Based on the insights taken from the results, teachers should make attempts to experience more positive emotions than negative ones. In this way, their identity is developed in a positive and authentic direction. Teacher preparation programs should be equipped with plans and instructions whose mission is enhancement of positive emotions in student teachers as a useful strategy to build a more positive and conducive identity in them. Policy makers can develop policies to prioritize a healthy identity formation in EFL teachers through injecting positive emotions in them.

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## Appendices

### Appendix A: Iranian EFL Teachers' Emotionality Questionnaire

Column	Elements	Items	1=Disagree	2=Slightly disagree	3=Moderat	4=Slightly agree	5=Agree
1	Enjoyment	I enjoy teaching.					
2		Teaching is so enjoyable that I happily prepare myself before coming to the class.					
3		I am usually happy when I am teaching.					
4		I usually teach with enthusiasm.					
5	Anxiety	I sometimes feel nervous in teaching.					
6		I am anxious that I cannot teach well.					

7		Becoming prepared for teaching makes me anxious.					
8		I feel anxious when I go to crowded classes.					
9	Burnout	I feel emotionally exhausted in teaching.					
10		I feel that students' annoyance overwhelms me.					
11		I feel tired after each class.					
12		I feel it too difficult to work with students.					
13		I feel absurdity in teaching.					
14		Teaching job is not interesting for me.					
15	Responsiveness	I respond to my students' needs.					
16		I respond to my students' concerns.					
17		I respond to my students' questions.					
18		I respond to my students' wants.					
19	Emotional support	I give emotional support to my students.					
20		I respect my students.					
21		I listen to my students' sayings carefully.					
22		I show empathy and sympathy toward my students.					
23		I give positive feedback to my students.					
24		I have mutual interaction with my students.					
25	Flexibility	I am flexible in my teaching.					
26		I make my students engaged in teaching affairs.					
27		I ask my students' views on my teaching methods.					
28		I ask my students' views on my assessment methods.					
29		I ask my students' views on my classroom management.					
30		I ask my students' views on the content of instructional materials.					



**Appendix B: Revised Identity Style Inventory (ISI-5)**

Column	Elements	Items	1=Disagree	2=Slightly disagree	3=Moderate agree	4=Slightly agree	5=Agree
1	Diffuse-avoidant Identity	When personal problems arise, I try to delay acting as long as possible					
2		I'm not sure where I'm heading in my life; I guess things will work themselves out.					
3		My life plans tend to change whenever I talk to different people.					
4		Who I am changes from situation to situation.					
5		I try not to think about or deal with problems as long as I can.					
6		I try to avoid personal situations that require me to think a lot and deal with them on my own.					
7		When I have to make a decision, I try to wait as long as possible in order to see what will happen.					
8		It doesn't pay to worry about values in advance; I decide things as they happen.					
9		I am not really thinking about my future now, it is still a long way off.					
10	Informational Identity	When making important decisions, I like to spend time thinking about my options.					
11		When facing a life decision, I take into account different points of view before making a choice.					
12		It is important for me to obtain and evaluate information from a variety of sources before I make important life decisions.					
13		When making important decisions, I like to have as much information as possible.					
14		When facing a life decision, I try to analyze the situation in order to understand it.					
15		Talking to others helps me explore my personal beliefs.					

16		I handle problems in my life by actively reflecting on them.					
17		I periodically think about and examine the logical consistency between my values and life goals.					
18		I spend a lot of time reading or talking to others trying to develop a set of values that makes sense to me.					
19	Normative identity	I automatically adopt and follow the values I was brought up with.					
20		I think it is better to adopt a firm set of beliefs than to be open-minded.					
21		I think it's better to hold on to fixed values rather than to consider alternative value systems.					
22		When I make a decision about my future, I automatically follow what close friends or relatives expect from me.					
23		I prefer to deal with situations in which I can rely on social norms and standards.					
24		I have always known what I believe and don't believe; I never really have doubts about my beliefs.					
25		I never question what I want to do with my life because I tend to follow what important people expect me to do.					
26		When others say something that challenges my personal values or beliefs, I automatically disregard what they have to say.					
27		I strive to achieve the goals that my family and friends hold for me.					

## Investigating Iranian EFL students' perceptions towards incorporating multiple-intelligences based tasks into their classroom activities

## Article info

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## Abstract

Studying a foreign language in a rewarding and motivating atmosphere will create a perfect setting to enhance language proficiency. It appears that course books and class activities are crucial in this context. This experimental research aimed to find the efficacy of supplementary materials designed based on multiple intelligences on learners' attitudes towards classroom activities (enjoyment, engagement, choice, and challenge). To that end, a two-phase study was planned. First, the researchers developed tasks for each lesson of *Vision* series, the book taught in the high schools of Iran. Then, the experimental groups (N=60) were exposed to the designed tasks and the course book while the control group (N=60) were exposed just to the course book for four months. The Babel proficiency test, along with the translated edition of the Students' Perceptions of Classroom Activities Scale was given to the experimental and control group participants as the pretest and posttest to examine the impact of the developed tasks on their perceptions of classroom activities. The results of multivariate analysis of variance (MANOVA) indicated that the designed tasks had positive and significant effect on the students' interests, challenge, choice, and joy.

**Keywords:** Classroom activities, High school Students' Perceptions, Multiple Intelligences Based Tasks, Supplementary Materials

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## 1. Introduction

The term material can be attributed to anything that is used by instructors or students to facilitate development of language. Materials development refers to all the different processes in developing and using materials for language educating and teaching. Such a development includes evaluating materials, adapting materials, exploiting materials, developing and producing materials (Tomlinson, 2016). Materials seem to be influential in shaping students' attachment to the class and determining their different kinds of intelligences (Tomlinson, 2019). They all fall within the realm of multiple intelligences. The history of multiple intelligence was originated from the concept of social intelligence (Balawi, 2011). Multiple intelligence (MI) has become a topic of interest since the role of emotions and metacognitive abilities of students' have been highlighted. It can help researchers to define human effectiveness from social perspective and the capacity of individuals to act purposefully (Jarwan, 2007).

Task is an activity which is designed for achieving learning goals. The notion of task is fundamental in numerous theories of teaching and learning (Tomlinson, 2019). Classroom activities are the collections of different tasks and using different materials. Choosing appropriate materials can determine learning goals and how these goals will be demonstrated. In teaching a second language, using a variety of tasks can make the process of learning more communicative and enjoyable (Tomlinson, 2011).

Classrooms held at schools of Iran may not lead to students' productivity in using English language in a communicative way. Thus, students may not be willing to take part in classroom activities, since they are not challenging and interesting. They also might not provide various options for learners to choose and students do not enjoy doing them (Doyle, 2006). A part of this problem can be tackled by the use of supplementary materials which are specifically designed to encourage students towards having positive perceptions in class and cause student success.

The present study thus was conducted to design tasks and supplement *Vision* books which are currently taught at high schools of Iran by using materials consisting of multiple intelligences to improve students' perception of their learning environment.

## **2. Review of the Related Literature**

Over the last two decades there has been a great rise in the literature on materials development. As Evans & John (1998) argued, a materials developer should select materials properly from what is accessible. This is associated with some expertise that most of the teachers are not well prepared for. They should be creative with what is available. This can be exhibited through the content and the process. They should also try to modify activities to suit learners' needs. Differentiation is the process of modifying to cater the requirements of a variety of students (Garraida, 1999). Each student has their own personalized purposes, so the materials and instructions can be different (Graves, 2008). Materials and textbooks are about the content and it should be tailored according to learners' needs. Materials developers should also supplement their contents by providing extra activities. For this, they need to design their own approach which is the nature of language learning and teaching. Design refers to specification of the content, role of teachers, learners and materials, and procedure that is the variability of educational tasks that can be drawn on (Richards, 2005).

Reviewing previous research indicates that there is not only one approach for learning which influences creating suitable materials. For example, Harwood (2010) proposes different principles for developing materials. The first principle is helping teachers to make their own decisions. The second principle is concentrating on the meaning of a text rather than focusing on the linguistic features, this is called moving from text to language. The third one is providing engaging content. Hence, material developers need to know their audience and provide tasks according to their interests (Harwood, 2010). Moreover, they should create content with intent to attract learners and provide a challenging environment for learning. Learners' development is another important feature in helping students to grow their abilities as language learners (Harwood, 2008).

Classroom activities should be helpful for developing learners' ability to interact fluently, accurately and suitably. Learners need to respond to an authentic stimulus, so the activities should be fully contextualized (Tomlinson, 2019). Tasks should also provide feedback for learners to find their own problems and regulate themselves. Learners need to monitor themselves before, during and after language production (Krashen, 1985).

Manca (2020) carried out a study focusing on task-based instructions as opposed to the presentation-practice-production method for English language instruction in two classes at a private school in southern Brazil. The research revealed that students utilizing task-based instructions exhibited more effective English language learning outcomes as they engaged in using the language to perform tasks, access information, solve problems, and discuss personal experiences. Ellis (2016) stresses that task-based language teaching is an instructional method which views language primarily as a tool for communication rather than as an object for analysis or manipulation.

The textbook holds significant importance in countries like Iran, where English is considered a foreign language. Learning English is a mandatory component of the Iranian curriculum. Prior to the Iranian Revolution, English-speaking teachers were hired to teach the language to students in order to establish the most effective learning atmosphere. However, following the Revolution in 1979, the system underwent significant changes due to various circumstances. With respect to the course books, it is important to note that English textbooks for schools in Iran are developed by the Ministry of Education under the name *Vision* series, and there are no viable substitutes. These course books are used in both private and public schools, with all instructors following the same curriculum. English language teachers are expected to cover one book per academic year, divided into two semesters. Each semester consists of approximately sixteen weeks, with English language instruction provided in both terms. Essentially, each course book is divided into two equal parts, with each part covered within one term. Additionally, *Vision 1* has four lessons, *Vision 2* has three lessons, and *Vision 3* includes three lessons, all following the same structure.

Iranian students are required to study English for six years. However, the education they receive does not fully equip them with the necessary skills to use English proficiently or communicate confidently (Ghanizadeh & Jahedizadeh, 2015). Considering the students' difficulties in interacting in English with peers from different regions of Iran, it is evident that some of the challenges faced by teachers and learners may be attributed to the course books (Ananisarab & Mobasheri, 2009). Consequently, many teachers incorporate supplementary materials in their classes to make their own classes more challenging and enjoyable and help learners to have better achievement (Maghsoudi &

Khodamoradi, 2023).

Multiple intelligences (MI) has entered into the field of assessment, teaching and learning since thirty years ago. It has been associated with social intelligence (Stipek, 2002). Individuals attempt to resolve issues by utilizing their dominant intelligence (Temiz, 2007). Educational establishments face the challenge of equipping pupils with the essential skills and abilities to cater the demands of the modern world, particularly in the context of a global environment that highly values different cultures and abilities (Sousa, 2006). In order to achieve this objective, it is imperative to adapt and revise the curriculum accordingly (Mustikawati & Astuti, 2021). Magfirah and Thahir (2021) emphasized that multiple intelligences are fundamental to a person's overall development, as they influence their understanding of themselves, their abilities to adapt, their emotions, motivations, attitudes, and their control over their strengths and weaknesses. Consequently, it is crucial to incorporate teaching strategies that focus on developing different intelligences. These strategies allow students to process the information presented and make personal connections, while also providing a refreshing change of pace to keep them engaged (Sousa, 2006). Activities that encourage personal reflection and expression, like making personal associations and sharing experiences, are highly recommended (Ellis, 2003). Additionally, offering students choices and allowing them to make decisions about their learning experiences can be beneficial.

Learning environment is a broad term which refers to anything happening in classroom, department or college (Rukban, Khalil, & Al-Zalabani, 2010). It is the district, culture, and condition that students learn in. It also refers to other elements like learners' characteristics such as the way of their interaction, their motivation, individual differences and educational system. Arisoy (2007) argues that learning atmosphere has two facets; the first one is physical setting like spaces, lighting, desks and chairs that affects learners' safety and comfort. The next aspect is psychological environment which is the social quality of the classroom.

The students' insights towards their learning environment have been studied in different levels (Arzuman, Yusoff, & Chit, 2010). They can be a basis for optimizing and modifying educational setting. Several Studies have revealed that there is a significant

positive connection between learners' perceptions of classroom activities and their achievement (; Arisoy, 2007; Aghamolaei & Fazel, 2010; Ghanizadeh & Jahedizadeh, 2015). Moreover, it can help teachers to find best teaching strategies to improve educational environment by providing complete and detailed information about educational process (Garraida, 1999).

Teachers can enhance students' learning by focusing on topics that they find enjoyable. However, it is crucial to create an interesting learning environment where interaction among individuals takes place. In addition to traditional reading and listening activities, active participation in discussions, hypothesis formation, and sharing opinions contribute to effective learning (Moore, 2011). In this dynamic process, learners are not passive recipients of information; instead, they actively construct or rediscover knowledge (Acat, 2006). According to Moore (2011), these activities can motivate learners in their learning environment and it is facilitator as students learn by doing and experience what they want to achieve. It also provides opportunity for teachers to have immediate feedback and arouse a high degree of learners' interest and engagement.

Gentry and Gable (2001) defined a dimension for classroom activities named as *My Classroom Activities* (MCA). According to this dimension, there are four important scales: the first one is interest which refers to positive moods for particular topics, subjects, or activities. Next is challenge which is about engaging learners and requiring extra effort. The third one is choice. It is to give learners the right to choose informative choices and manage their own learning. Enjoyment is the other scale which is about providing learners with pleasure and sense of satisfaction in the classroom.

In the process of education, incorporating opportunities for students to derive pleasure from their learning experiences can greatly contribute to the development of a lifelong passion for acquiring knowledge. By demonstrating that learning can be enjoyable and exposing students to a variety of materials and activities, individuals can discover something that resonates with their personal interests and preferences (Ciuti et al., 2012). Achieving a state of immersive and pleasurable learning requires not only the acquisition of essential learning skills but also the ability to fully engage with the subject matter (Wang et al., 2020). Numerous studies have unequivocally demonstrated that the advantages of



learning for pleasure extend far beyond the realm of literacy-related outcomes (Hattieh, 2009; Hussein, 2018). In addition to enhancing reading comprehension, critical thinking abilities, and vocabulary expansion, learning for pleasure can yield cognitive benefits, foster social interactions through discussions and sharing of reading experiences, promote emotional and psychological well-being, encourage healthy behaviors, and provide a sense of personal enjoyment (Mak & Fancourt, 2020).

Considering the above points and the need for developing engaging and pleasant learning experience in Iranian high school English classes, the primary objective of the present study was designing tasks to empower instructors to teach with multiple intelligences. The subsequent step involved carrying out these tasks in actual classrooms to assess the impact of such tasks empirically. In pursuit of this objective, the following research question was proposed:

- What is the perception of Iranian high school students' towards the tasks/ supplementary materials for *Vision* Series by using multiple intelligences in terms of joy, interest, choice, and challenge?

### **3. Methodology**

#### **3.1. Participants**

A total of one hundred twenty students participated in this research, with sixty learners in the control group and the remaining sixty in the experimental group across three high schools in Mashhad. Convenience sampling technique was used to recruit the participants. The participants' ages ranged from 14 to 16, and they were Iranian students in the tenth, eleventh, and twelfth grades covering the *Vision* series in the formal education system. To fulfill the primary requirement of the experimental study, the Babel English Language Placement Test (BELPT) was applied. The demographic information of the members is detailed has been detailed below .

**Table 1.***Analytical Data of the Members*

Number	120
Gender	Males
Language	Persian
Year	2023

**3.2. Instruments****3.2.1. Students' Perceptions of Classroom Activities Scale**

To obtain students' perspectives on classroom activities, the researchers utilized the adapted form of the 'Students Perceptions of Classroom Activities' scale created by Gentry and Gable (2001), which was translated into Persian and verified by Ghanizadeh and Jahedizadeh (2015). Validity evidence for construct interpretation was investigated through confirmatory factor analysis. A *chi-square/df ratio* (2.38) and the *RMSEA* (.062) as well as the *GFI* (.78) were indicative of model fit. Furthermore, all items had accepted factor loadings. The Cronbach's alpha estimates for each perception ranged from .71 to .86 (interest = .86, challenge = .73, choice = .71, joy = .79). Additionally, all items showed satisfactory factor loadings. The Scale consists of thirty-one statements estimating four aspects (challenge, interest, joy, and choice) through a 5-point Likert-type answer scale (See Appendix). It was used as pre-test and post-test.

**3.2.2. The Paper Version of Babel English Language Placement Tests (BELPT)**

The printed edition of the Babel English Language Placement Tests (BELPT) was employed to decide on language proficiency level of the participants. It was utilized to assign the students into experimental and control groups, ensuring their homogeneity. The testing procedure required 60 minutes of student time and consisted of multiple-choice questions that assessed their correct answers across various skills, grammatical structures, and dialectal choices in context (Franz, 2008). According to Sharifi, Ghanizadeh and Jahedizadeh (2017), the test displayed acceptable consistency Cronbach's alpha = .81 and validity evidence (.83).

### 3.3. Procedure

First, the researchers developed tasks for *Vision Series* lessons. *Vision* series include three books; *Vision* one for tenth Grade include four lessons, *Vision* two for eleventh grade encompasses three lessons, and *Vision* three for twelfth grade has three lessons. The assignments were grounded on Jones (2017) guideline and the taxonomy of language learning activities for multiple intelligences provided by Christison (1997). The researchers asked experts and university instructors to check the tasks during the process of designing and consider whether items were missing or whether any items could be improved or removed. For putting the tasks in order, the researchers paid attention to the extent to which each task was related a specific skill. Some tasks were in Listening part while others were related to Speaking, Reading, or Writing part. Moreover, some tasks fell in two or three integrated skills like Reading & Writing. In fact, there were some tasks that helped learners to integrate skills especially their comprehension and production ability.

Next, the researchers utilized the language placement test named as BELPT to determine the language proficiency of the learners. Students' Perceptions of Classroom Activities Scale was also employed as pre-test. After that, learners were assigned into control and experimental groups based on the results. Each group had sixty members; twenty students were in grade ten, twenty in eleventh grade and others were in grade twelve. Then, the tasks were implemented in experimental groups for sixteen sessions during four months as the supplementary materials for the main textbooks. In fact, different types of tasks which were designed implemented in experimental groups. There were some matching tasks which helped learners to use their spatial, verbal, and interpersonal intelligences. For instance, the task asked learners to read the texts and look at the photos and match each text to the picture. Then, learners talked to their partners and expressed their logic for matching texts and their pictures. There were also some comparison tasks that first required learners to write a list about the characteristics of a healthy lifestyle and then compare their own list with their partners. Finally, learners had to combine the lists and give them to their teacher. In this way, learners could use their logical, verbal, and interpersonal intelligences. The supplementary material also contained tasks based on common problems like pollution, relationships and so on. For example, a task asked learners to think about a town center where there was too much traffic. Learners should

think about three alternative solutions for this problem; then list the advantages and disadvantages of each alternative and decide which one was the most innovative one by giving reasons. This task could be helpful for learners to use logical, naturalistic, and intrapersonal intelligences. After every unit, learners were requested to do the tasks whether in the class or at home. The assignments were checked in the class by the instructor who was the same in all classes or through group exercises if required. However, in the control groups there were not any supplementary materials and learners just studied the course books (*Vision*) without doing any extra tasks. At the end, the scale was used to obtain the perceptions of both groups regarding the activities they engaged in during the course

### **3.4. Data Analysis**

In order to guarantee the uniformity of the two groups regarding their language proficiency and their perceptions of their learning environment activities, an independent samples *t*-test was conducted utilizing SPSS version 22. To check whether the implemented tasks in experimental group resulted in significant differences in the variables, multi-level analysis of variance MANOVA was utilized.

## **4. Results**

To check the normality of data distribution, the Kolmogorov-Smirnov test was employed. This test is used to check whether the distribution deviates from a comparable normal distribution. If the *p*-value is non-significant ( $p > .05$ ), we can say that the distribution of a sample is not significantly different from a normal distribution, therefore it is normal. If the *p*-value is significant ( $p < .05$ ) it implies that the distribution is not normal. Table 2 presents the results of the Kolmogorov-Smirnov test. As can be seen, the obtained sig value for all variables is higher than .05. Therefore, it can safely be concluded that the data is normally distributed across all four variables.

**Table 2.***Kolmogorov-Smirnov Test*

	Kolmogorov-Smirnov <sup>a</sup>		Sig.
	Statistic	df	
Perceptions	.07	179	.06
BABEL	.08	179	.08

**4.1. The Results of Pretests****4.1.1. Students' Proficiency Level****4.1.1.1. Tenth Grade Students**

To examine whether the two groups of tenth grade students were homogenous at the beginning of the study regarding their proficiency level, the Babel Test was administered. Table 3 presents the outcome of t-test on BELPT.

**Table 3.***Descriptive Statistics of Tenth Grade Students' Proficiency level in Pretest*

	Group	N	Mean	Std. Deviation	Std. Error Mean
BabelTest	Control	20	13.20	1.67	.37
	Experimental	20	12.45	1.50	.33

The average points for the control (M=13.20, SD=1.67) and experimental (M=12.45 SD=1.50) groups appear to be quite similar. Nevertheless, an independent samples t-test was conducted to verify the similarity of the two groups as demonstrated below.

**Table 4.**

*The Results of T-test on Tenth Grade Students' Proficiency Levels in Pretest*

		Levene's Test for Equality of Variances							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Babel Test	Equal variances assumed	.09	.75	1.49	38	.14	.75	.50	
	Equal variances not assumed			1.49	37.57	.14	.75	.50	

Table 4 indicates that there was not a statistically significant difference between the two groups of tenth grade students regarding their proficiency level ( $t= 1.49, p> .05$ ).

**4.1.1.2. Eleventh Grade Students**

It is evident that the average scores show minimal difference between the control group ( $M=12.65, SD=2.00$ ) and experimental group ( $M=17.50, SD=23.25$ ) Nevertheless, an independent samples t-test was conducted to verify the similarity of the two groups as presented in Table 5 .

**Table 5.**

*Descriptive Statistics of Eleventh Grade Students' Proficiency level in Pretest*

	Group	N	Mean	Std. Deviation	Std. Error Mean
BabelTest	Control	20	12.65	2.00	.44
	Experimental	20	17.500	23.25	5.19

It is evident that there are varying mean scores between the control group ( $M=12.65, SD=2.00$ ) and experimental group ( $M=17.55, SD=23.25$ ) prompting the use of an independent samples t-test to verify the similarity of the two groups.

**Table 6.**

*The Results of T-test on Eleventh Grade Students' Proficiency Levels in Pretest*

		Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)	Mean Difference	Std. Difference	Error
		F	Sig.						
Babel Test	Equal variances assumed	3.21	.08	-.93	38	.35	-4.90	5.21	
	Equal variances not assumed			-.93	19.28	.35	-4.90	5.21	

Table 6 demonstrates that there was not a statistically significant difference between the groups of eleventh grade students on their proficiency level ( $t = 0.93$ ,  $p > .05$ ).

#### **4.1.1.3. Twelfth Grade Students**

The results of the t-test on the Babel Test for the twelfth level students are displayed below.

**Table 7.**

*Descriptive Statistics of Twelfth Grade Students' Proficiency level in Pretest*

	Group	N	Mean	Std. Deviation	Std. Error Mean
BabelTest	Control	20	12.85	2.00	.44
	Experimental	20	12.90	1.86	.41

It is evident that the average scores show some difference between the control group ( $M = 12.85$ ,  $SD = 2.00$ ) and experimental group ( $M = 12.90$ ,  $SD = 1.86$ ). Nevertheless, an independent samples t-test was conducted to verify the similarity of the two groups as presented in Table 8.

**Table 8.***The Results of T-test on Twelfth Grade Students' Proficiency Levels in Pretest*

		Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		F	Sig.					
Babel Test	Equal variances assumed	.01	.89	- .08	38	.93	-.05	.61
	Equal variances not assumed			- .08	37.78	.93	-.05	.61

Table 8 indicates that the proficiency levels of the twelfth-grade students in both groups do not show a statistically significant difference ( $t = 0.08$ ,  $p > .05$ ).

**4.1.2. Students' Perceptions of Classroom Activities****4.1.2.1. Tenth Grade Students**

To check whether the two groups of tenth grade students were homogenous at the beginning of the study regarding their perceptions of classroom activities, the questionnaire was administered to both control and experimental groups. Table 9 shows the outcomes of t-test on the questionnaire.

**Table 9.***Descriptive Statistics of Tenth Grade Students' Perceptions of Classroom Activities in Pretest*

	Group	N	Mean	Std. Deviation	Std. Error Mean
IntPre	Control	20	13.40	1.81	.40
	Experimental	20	13.75	1.55	.34
ChaPre	Control	20	15.55	1.95	.43
	Experimental	20	15.25	2.42	.54
ChoPre	Control	20	12.30	1.70	.39
	Experimental	20	11.45	1.39	.31
JoyPre	Control	20	11.95	1.57	.35
	Experimental	20	11.80	1.60	.35
PerPre	Control	20	53.20	4.25	.95
	Experimental	20	52.25	4.03	.90



The mean points for the control (M=53.20, SD=4.25) and experimental (M=52.25 SD=4.03) groups exhibited slight differences. In order to determine the significance of these small variances, a one-way between-groups multivariate analysis of variance (MANOVA) was conducted. The study included four dependent variables: Interest, Challenge, Joy, and Choice in perceptions of class activity, with the independent variable being group (experimental and control). Hypothesis testing was carried out and they were not met any major issues. MANOVA outcomes displayed below indicated that there was no statistical significant differences between the groups in relation to the dependent variables analyzed.

**Table 10.**

*The Results of MANOVA on Tenth Grade Students' Perceptions of Classroom Activities*

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	.96	.81 <sup>b</sup>	4.00	35.00	.49	.02
a. Design: Intercept + Groups						
b. Exact statistic						

#### **4.1.2.2. Eleventh Grade Students**

In order to ensure the similarity of eleventh grade students at the commencement of the research regarding their views on classroom activities, the survey was also conducted among both the control and experimental groups. The findings of the t-test on the survey are presented in Table 11 .

**Table 11.**

*Descriptive Statistics of Eleventh Grade Students' Perceptions of Classroom Activities in Pretest*

	Group	N	Mean	Std. Deviation	Std. Error Mean
IntPre	Control	20	14.10	2.149	.48
	Experimental	20	13.35	1.92	.43
ChaPre	Control	20	15.55	2.52	.56
	Experimental	20	14.70	2.29	.51
ChoPre	Control	20	12.15	1.38	.31
	Experimental	20	12.05	1.23	.27
JoyPre	Control	20	13.00	2.31	.51
	Experimental	20	11.70	1.83	.41
PerPre	Control	20	54.80	4.78	1.07
	Experimental	20	51.80	3.91	.87

It is evident that there were slight differences in the mean scores for the control (M=54.80; SD=4.78) and experimental (M=51.80 SD=3.91) groups. In order to determine if these small variances were indeed significant, a one-way between-groups multivariate analysis of variance (MANOVA) was conducted. The independent variable was the four dependent variables. The outcomes indicated that there was no statistically significant difference between the groups.

**Table 12.**

*The Results of MANOVA on Eleventh Grade Students' Perceptions of Classroom Activities*

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	.81	.70 <sup>b</sup>	4.00	35.00	.39	.01

a. Design: Intercept + Groups  
b. Exact statistic

#### 4.1.2.3. Twelfth Grade Students

To check whether the two groups of twelfth grade students shared similar perceptions at the beginning of the study regarding classroom activities, the questionnaire was administered to control and experimental groups. Table 13 shows the results of t-test on the questionnaire.

**Table 13.**

*Descriptive Statistics of Twelfth Grade Students' Perceptions of Classroom Activities in Pretest*

	Group	N	Mean	Std. Deviation	Std. Error Mean
Intpre	Control	20	12.55	1.66	.37
	Experimental	20	13.15	1.63	.36
ChaPre	Control	20	15.05	1.84	.41
	Experimental	20	15.05	2.92	.65
ChoPre	Control	20	12.10	1.25	.28
	Experimental	20	11.80	1.50	.33
JoyPre	Control	20	11.50	1.63	.36
	Experimental	20	12.20	1.85	.41
PerPre	Control	20	52.20	4.61	1.03
	Experimental	20	53.20	4.38	.98

It is evident that there was a slight difference in the mean of the control ( $M=52.20$ ,  $SD=4.61$ ) and experimental ( $M=53.20$ ,  $SD=4.38$ ) groups. In order to determine if these small discrepancies were statistically significant, a one-way between-groups multivariate analysis of variance (MANOVA) was conducted. The results indicated that there was no statistically significant difference between the two groups.

**Table 14.**

*The Results of MANOVA on Twelfth Grade Students' Perceptions of Classroom Activities*

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	.90	.82	4.00	35.00	.41	.03

a. Design: Intercept + Groups  
b. Exact statistic

## 4.2. Research Question

What is the perception of Iranian high school students' towards the tasks/ supplementary materials for *Vision Series* by using multiple intelligences in terms of joy, interest, choice, and challenge?

### 4.2.1.1. Tenth Grade Students

The descriptive statistics for the components of perception of class activity are presented in the Table below, comparing the treatment and control groups in the posttest. It is evident from the Table that the mean points for all parameters are greater in the experimental group .

**Table 15.**

*Descriptive Statistics of Perceptions of Class Activities*

	Group	N	Mean	Std. Deviation	Std. Error Mean
Intpost	Control	20	12.55	1.79	.40
	Experimental	20	32.25	2.44	.54
ChaPost	Control	20	14.30	2.38	.53
	Experimental	20	36.60	2.81	.62
ChoPost	Control	20	11.65	1.26	.28
	Experimental	20	28.65	2.00	.44

JoyPost	Control	20	11.75	1.80	.40
	Experimental	20	28.30	2.31	.51
PerPost	Control	20	51.25	4.11	.92
	Experimental	20	125.80	6.25	1.39

Further inferential statistics was used to find the whether the differences between groups were statistically different. So, a one-way between-groups multivariate analysis of variance (MANOVA) was run. Prior to this, preliminary assumption testing was carried out revealing no significant issues. The MANOVA results displayed in Table 16 revealed a statistically significant difference between the two groups in terms of the combined dependent variables. The effect size is .86, signifying a substantial importance according to Cohen's F. This suggests that approximately 86 percent of the divergence in the learners' perceptions towards class activity can be explained by the treatment performed in the Treatment group.

**Table 16.**

*The Results of MANOVA for Perception of Class Activities*

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	.14	53.34	4.00	36.00	.00	.86
a. Design: Intercept + Groups						
b. Exact statistic						

The subsequent examination conducted in Table 17 manifested that this discrepancy remained consistent for all four aspects of class activities: Challenge (F=193.12, p=.000, partial eta squared =.83), Interest (F=222.81, p=.00, partial eta squared =.85) Choice (F=211.33, p=.00, partial eta squared =.84), and Joy (F=215.49, p=.00, partial eta squared =.84).

**Table 17.**

*MANOVA Table Indicating the Outcomes of Four Kinds of Perceptions across Control and Experimental Groups*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Groups	IntPost	20976.40	1	20976.40	222.81	.00	.85
	ChaPost	25908.10	1	25908.10	193.12	.00	.83
	ChoPost	16240.90	1	16240.90	211.33	.00	.84
	JoyPost	16040.02	1	16040.02	215.49	.00	.84

#### 4.2.1.2. Eleventh Grade Students

The descriptive statistics of joy, interest, challenge, and choice in perception of class activity in the treatment and control groups in posttest are presented in Table 18. It is evident from the Table that the mean for all of the parameters are greater in the experimental group .

**Table 18.**

##### *Descriptive Statistics of Perceptions of Class Activities*

	Group	N	Mean	Std. Deviation	Std. Error Mean
Intpost	Control	20	14.95	2.52	.56
	Experimental	20	32.75	2.71	.60
ChaPost	Control	20	17.45	3.88	.86
	Experimental	20	36.15	1.92	.43
ChoPost	Control	20	12.15	1.38	.31
	Experimental	20	12.05	1.23	.27
JoyPost	Control	20	12.70	2.84	.63
	Experimental	20	29.10	1.97	.44
PerPost	Control	20	57.85	6.73	1.50
	Experimental	20	126.25	5.15	1.153

Using a one- way between-groups multivariate analysis of variance (MANOVA) the significance of this difference was sought. Prior to this, preliminary assumption testing was carried out; it showed no significant violations. The results of the MANOVA analysis, as shown in the table below, indicated a statistical significant difference between the two groups. The calculated effect size is .88; it is considered to be of substantial magnitude based on Cohen's F. It suggests approximately 88 percent of the deviation in the students' perception of class activities may be explained by the treatment employed in the study .

**Table 19.**

##### *The Results of MANOVA for Perception of Class Activities*

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	.11	71.47	4.00	36.00	.00	.88
a. Design: Intercept + Groups						
b. Exact statistic						

The subsequent analysis conducted in Table 20 revealed the discrepancy remained consistent for all aspects of class activities.

**Table 20.**

*MANOVA Table Revealing the Results of Four Types of Perceptions across Experimental and Control Groups*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Groups	IntPost	22752.90	1	22752.90	258.77	.00	.86
	ChaPost	28729.60	1	28729.60	290.69	.00	.88
	ChoPost	16810.00	1	16810.00	260.15	.00	.87
	JoyPost	17472.40	1	17472.40	233.55	.00	.85

#### 4.2.1.3. Twelfth Grade Students

The descriptive statistics for challenge, interest, joy, and choice in perception of class activity across the treatment and control groups in posttest are presented in the table below. It is evident from the Table that the means of all parameters are greater in the treatment group compared to their control counterpart.

**Table 21.**

*Descriptive Statistics of Perceptions of Class Activities*

	Group	N	Mean	Std. Deviation	Std. Error Mean
Intpost	Control	20	13.85	2.03	.45
	Experimental	20	32.55	2.81	.63
ChaPost	Control	20	15.50	2.28	.51
	Experimental	20	36.05	2.62	.58
ChoPost	Control	20	11.65	1.34	.30
	Experimental	20	28.35	1.46	.32
JoyPost	Control	20	11.50	1.63	.36
	Experimental	20	21.20	1.85	.41
PerPost	Control	20	53.20	4.51	1.00
	Experimental	20	126.30	6.13	1.37

To determine the significance of the detected variations a one-way between-groups multivariate analysis of variance (MANOVA) was used. Prior to this, preliminary assumption testing indicated no major violations. The findings of the MANOVA showed

statistically significant difference between the two groups. The calculated effect size is .85, indicating a substantial magnitude based on Cohen's F. It suggests that approximately 85 percent of the deviation in learners' comprehension of class activity can be explained by the methodology employed in the treatment group.

**Table 22.**

*The Results of MANOVA for Perception of Class Activities*

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	.14	54.53	4.00	36.00	.00	.85
a. Design: Intercept + Groups						
b. Exact statistic						

The subsequent analysis conducted in the table below revealed that the distinction remained consistent across the four dimensions of class activities.

**Table 23.**

*MANOVA Table Revealing the Outcomes of Four Kinds of Perceptions over Control and Experimental Groups*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Groups	IntPost	21529.6	1	21529.60	225.32	.00	.85
	ChaPost	26574.02	1	26574.02	232.74	.00	.85
	ChoPost	16000.00	1	16000.00	217.87	.00	.84
	JoyPost	17264.02	1	17264.02	217.26	.000	.84

## 5. Discussion and Conclusion

The results of this study revealed that tasks can significantly enhance learners' perceptions of classroom activities at the end of the semester. Aikenhead (2006) expounded that pupils' enthusiasm in learning is decreasing these days, which causes them to get separated from their real world. That is why they need some extra tasks which is designed based on their needs and interests. According to Mortiboys (2005), to listen to and acknowledge students is one approach to encourage their interest in their learning environment and make class more enjoyable. Moreover, the integration of listening and speaking tasks help learners to make a good relationship with others and increase their interpersonal and intrapersonal

intelligences. There are some tasks in the book which ask learners to role play and tell stories about their own experiences. They can give learners a sense of interest and enhance their linguistic intelligence.

Other researchers like Mercer (2019) argue that the teaching based on the multiple intelligences' origins can make the learning more long-lasting and help the students to establish more positive mindset towards their lessons in different areas. In line with the findings of these investigations, the results of this research showed that using multiple intelligences-based tasks in the classroom could enhance learners' interest toward learning.

In the modern world, it is expected from students to be active learners rather than passive recipients of the stimuli provided by the teacher. In this regard, several researches like Butler (2011) attest to the fact that multiple intelligences-based activities boost student interest and grab their attention by bringing more color and variety to the classroom. In line with this study, Hamurlu (2007) analyzed the students' attitudes and sense of enjoyment toward the impacts of the schooling based on multiple intelligences theory. Lessons were run through exercises based on this theory. The results indicated that students' attitudes and sense of joy increased in their learning Environment. Similarly, in an investigation conducted by Hajhashemi, Ghombavani, and Yazdi Amirkhiz (2011) the findings revealed applying multiple intelligences theory could give students a better attitude towards their learning. Such findings are consistent with what was obtained in the current study; using the tasks which are designed based upon multiple intelligences theory like role playing, doing the puzzles or watching movies to do the tasks can help learners enjoy their learning environment.

On the other hand, easy tasks may not make learners feel competent because there is no increase in the level of their skills; for example the tasks which ask learners to draw a picture for the new words or expressions they have heard, are easy for learners. Giving out difficult tasks could also lead to failure. For instance, output based tasks and tasks which ask learners to share the information on their cards so their group members could complete a schedule may lead to failure. The ideal level of difficulty for tasks is what allows students to see how much their skills have improved. In fact, developing educational tasks



that address multiple intelligences of learners not only helps teachers better fulfill the requirements of the students, but also motivate students to practice using their other intelligences in a challenging environment. By doing this, teachers can help learners develop and strengthen some of their weaker intelligences. In fact, teaching with multiple intelligences can completely boost the challenges in the classroom and promote learning achievement (Mahasneh, 2013).

One way of providing challenging tasks in the classroom is using open ended questions which ask learners to write about their own ideas. In this study, a wide range of challenging tasks such as real life tasks, comparison tasks, and problem solving tasks were designed for different learning styles and the findings obtained after the treatment are in line with the results of previous studies like Barrington (2004). Accordingly, multiple intelligences-based tasks can offer students a challenging learning environment and enhance language achievement. Further, offering students a variety of options can help them learn more deeply, apply concepts, and internalize new materials because pupils perform well when they are given opportunity to engage in the acquisition and processing of the things they want to learn (Gentry and Gable, 2001).

The findings of this research indicated that multiple intelligences-based tasks can provide opportunity for learners to select how and what they learn. For example, some tasks are designed in the way that can be done individually or in pair. Students are free to choose to answer alone or in the group. The results of the study align with those of previous research, showing similar findings. For example, Hanafin (2014) examined the correlation between vocabulary learning and teaching and multiple intelligences. The findings revealed learning lexicons considering multiple intelligences-based tasks can have positive effect on students' learning and provide opportunities for them to develop their abilities. Further, Franz (2008) stated that the students who have the opportunity to identify themselves in their preferences and actions, can have a better feeling toward their learning environment which results in creating a good classroom atmosphere.

The results of this study can be useful for materials developers to be mindful of distinctive variables influencing students' learning. They should provide tasks appropriate for different learners with distinctive intelligences. Instructors should consider individual

differences and provide different tasks for learners to make their classes more pleasant, interesting, and challenging in which learners have opportunity to choose appropriate tasks based on their needs and capabilities. Indeed, educators should assess the needs and interests of their students and offer a range of tasks to assist them in achieving their objectives. In fact, students attend language classes with the aim of improving their communication abilities. Therefore, tailored tasks can aid students in developing their communicative skills in alignment with their multiple intelligences.

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## Appendix

### Learners' Perception of Classroom Activities Questionnaire

همیشه	معمولا	گاهی اوقات	بندرت	هرگز	فعالیت	حیطه
					به کارهایی که در کلاس انجام میدهم علاقه مندم.	1 علاقه
					من در کلاس فرصت این را دارم تا کارهایی انجام دهم که به انجام آنها علاقه دارم.	2
					آنچه در کلاس انجام میدهم به من ایده ها و جالبی می دهد.	3
					به موضوعاتی که در کلاس مطالعه میکنم علاقه مندم.	4
					استاد مرا در فعالیت های یادگیری مورد علاقه ام مشارکت میدهد.	5
					آنچه در کلاس یاد میگیرم برایم جالب است.	6
					به آنچه در کلاس انجام میدهم علاقه مندم.	7
					کلاس به من کمک کرده تا زمینه های علاقه مندی خود را کشف کنم.	8
					فعالیت هایی که در کلاس انجام میدهم چالش برانگیز است.	1 چالش

					2	در کلاس باید به این فکر کنم که چگونه میشود مشکلی را حل کرد.	
					3	کتاب ها و وسایل کمک آموزشی در کلاس چالش برانگیز است.	
					4	من خودم را با امتحان کردن چیزهای جدید به چالش میکشم.	
					5	کار من میتواند چالش برانگیز باشد.	
					6	به نظرم کاری که در این کلاس انجام میدهم سخت است.	
					7	من به چالش کشیده میشوم تا در کلاس بهترین عملکرد را از خود نشان دهم.	
					8	آنچه در کلاس انجام میدهم متناسب با توانایی هایم است.	
					9	این کلاس برایم دشوار است.	
					1	اجازه دارم انتخاب کنم که در گروه کار کنم.	انتخاب
					2	اجازه دارم انتخاب کنم که بصورت فردی کار کنم.	
					3	وقتی قرار است گروهی کار کنیم اجازه دارم همگروهی هایم را خودم انتخاب کنم.	
					4	استاد به من اجازه میدهد تا پروژه هایم را خودم انتخاب کنم.	
					5	وقتی کارهای زیادی برای انجام دادن وجود دارد اجازه دارم از بینشان آنهایی را انتخاب کنم که برایم مناسب تر است.	
					6	من اجازه دارم انتخاب کنم چه منبعی (مثلا کتاب) در کلاس کار شود.	
					7	اجازه دارم برای مطالبی که روی آن کار کرده ام مخاطب انتخاب کنم.	
					1	برای رفتن به سر کلاس بسیار مشتاق هستم.	لذت
					2	از بودن در کلاس لذت میبرم.	
					3	استادم یادگیری را لذت بخش میکند.	
					4	آنچه را در کلاس انجام میدهم دوست دارم.	
					5	کار کردن در یک کلاس را دوست دارم.	
					6	فعالیت هایی که در کلاس انجام میدهم برایم لذت بخش است.	
					7	پروژه هایی را که در کلاس روی آنها کار میکنم دوست دارم.	

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**Abstract**

This study investigated the impact of teacher and peer scaffolding on the speaking performance of Iranian EFL learners. Utilizing a quasi-experimental design, 60 intermediate-level female learners were selected from a population of 75, divided into three groups: teacher scaffolding, peer scaffolding, and a control group. The study employed the Preliminary English Test (PET) and speaking pretest and posttest to ensure homogeneity and measure the participants' progress in speaking proficiency. The results of a One-way ANOVA indicated significant improvements in speaking performance for both scaffolding groups compared to the control group. However, no significant difference was found between the effects of teacher and peer scaffolding. These findings suggest that both types of scaffolding are equally effective in enhancing L2 speaking skills, supporting the theoretical framework of Vygotsky's Zone of Proximal Development (ZPD). The study underscores the importance of incorporating scaffolding into language instruction to foster better speaking outcomes.

**Keywords:** Peer Scaffolding, Teacher Scaffolding, Iranian EFL Learners, Speaking Skill

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## 1. Introduction

Among the four essential language skills—listening, speaking, reading, and writing—speaking holds a particularly critical role in language acquisition and use, especially for English as a Foreign Language (EFL) learners. Speaking is the primary mode through which language learners engage in meaningful communication, express ideas, and interact in social and academic contexts. The significance of speaking in language learning cannot be overstated, as it is often the most direct measure of language proficiency and the skill most closely associated with real-world language use (Albino, 2017). The ability to speak a language fluently is often seen as the ultimate goal of language learning, and it is the skill most sought after by learners themselves, who wish to communicate effectively in various contexts.

Speaking as a language skill has been extensively studied, reflecting its importance in the broader field of language education (Boonkit, 2010; Rahnema et al., 2016; Razmjoo & Ghasemi, 2016). These studies underscore the complex nature of speaking, which involves not only linguistic competence but also the ability to use language appropriately in different social situations. As Steiner et al. (2022) note, speaking is an interactive process in which meaning is co-constructed through the production, reception, and processing of information. This process requires the speaker to manage multiple cognitive and linguistic demands simultaneously, making speaking one of the most challenging skills to master.

Proficiency in speaking is often equated with overall language proficiency, highlighting its importance in language learning. As Ur (2006) suggests, a learner's ability to speak fluently and accurately is a key indicator of their overall competence in the language. Given the centrality of speaking in language learning, it is crucial to explore effective strategies for enhancing learners' speaking skills. One such strategy is scaffolding, a pedagogical approach that involves providing learners with the necessary support to perform tasks that are within their capabilities but which they might struggle to complete independently (Mitchell & Myles, 2004).

The concept of scaffolding, introduced by Wood, Bruner, and Ross (1976) and later expanded by the works of Vygotsky (1978), has been a focal point in educational research, particularly in the context of language learning. Scaffolding is grounded in Vygotsky's Zone of Proximal Development (ZPD), which represents the difference

between what a learner can achieve independently and what they can achieve with guidance. Within this framework, scaffolding refers to the temporary support provided by a more knowledgeable individual, such as a teacher or a peer, to help the learner perform a task. As the learner's competence increases, the support is gradually withdrawn, allowing the learner to perform the task independently.

Scaffolding has been widely recognized as an effective strategy for supporting language development, particularly in speaking. Research has shown that both teacher and peer scaffolding can significantly impact language learning outcomes, including the development of speaking skills (Ahmadi Safa & Rozati, 2016; Amiri Samani & Khazayie, 2017; Harraqi, 2017; Khajeh Khosravi, 2017). For example, group work that involves expert-novice interactions has been found to provide more learning opportunities than unassisted group work (Luoma, 2004). Similarly, studies have shown that learners working in pairs or groups can achieve results that surpass what they could achieve on their own (Lacey et al., 2020).

Despite the wealth of research on scaffolding, there remains a significant gap in the literature regarding the comparative effects of teacher vs. peer scaffolding on the development of speaking skills. While both types of scaffolding have been studied independently, few studies have directly compared their effectiveness in improving speaking abilities. This gap in the literature is particularly relevant in the context of Iranian EFL learners, who often face unique challenges in developing their speaking skills due to the limited opportunities for authentic language use in their environment.

The problem addressed by this study is the lack of empirical evidence on the comparative effectiveness of teacher and peer scaffolding in enhancing Iranian EFL learners' speaking skills. Given the centrality of speaking in language learning and the critical role of scaffolding in supporting this skill, it is essential to determine which type of scaffolding is more effective in improving learners' speaking abilities. This knowledge is crucial for educators and curriculum developers who seek to optimize language teaching practices and improve learners' speaking outcomes.

The findings of this study have the potential to make significant contributions to the field of language education, particularly in the context of EFL teaching in Iran. By comparing the effectiveness of teacher and peer scaffolding on speaking skill development, this study aimed to provide insights into the most effective strategies for

supporting learners in their language acquisition journey.

One of the key contributions of this study is its potential to inform language teaching practices. If the study finds that one type of scaffolding is more effective than the other, educators can use this information to refine their instructional approaches. For example, if teacher scaffolding is found to be more effective, teachers may focus more on providing targeted, individualized support to learners during speaking activities. Conversely, if peer scaffolding proves to be more effective, teachers might emphasize collaborative learning activities that encourage peer interaction and support.

Moreover, the findings of this study could have implications for syllabus designers and curriculum developers. If one type of scaffolding is shown to be more effective, it may lead to the integration of more targeted scaffolding techniques into language curricula and instructional materials. For instance, if peer scaffolding is found to be particularly beneficial, syllabus designers might incorporate more group work and peer interaction activities into speaking courses. This could help create a more supportive learning environment that fosters language development through social interaction.

Policymakers in the field of language education could also benefit from the findings of this study. By providing empirical evidence on the comparative effectiveness of teacher vs. peer scaffolding, this study could inform policy decisions related to language teaching practices and teacher training programs. For example, if teacher scaffolding is found to be more effective, policymakers might consider implementing professional development programs that focus on enhancing teachers' ability to provide effective scaffolding in the classroom.

Material developers could also use the findings of this study to design activities and resources that incorporate the most effective scaffolding strategies. For example, if peer scaffolding is shown to be more effective, material developers might create activities that encourage peer interaction and collaboration, such as role-plays, debates, and group discussions. These activities could help learners develop their speaking skills in a supportive, interactive environment, ultimately leading to improved language proficiency.

Finally, this study can contribute to the broader body of knowledge in language

education by providing empirical evidence on the comparative effectiveness of teacher vs. peer scaffolding. This research can offer valuable insights for researchers, educators, and practitioners who seek to enhance language learning outcomes, particularly in the context of EFL speaking skill development. By filling the gap in the literature on this topic, this study can help advance our understanding of the most effective strategies for supporting EFL learners in their language acquisition journey.

In conclusion, the comparative study of teacher vs. peer scaffolding on improving Iranian EFL learners' speaking skills is a timely and important investigation that has the potential to make significant contributions to the field of language education. By providing empirical evidence on the effectiveness of different scaffolding strategies, this study will help educators, curriculum developers, policymakers, and researchers better understand how to support learners in their efforts to develop their speaking skills. Ultimately, the findings of this study will contribute to the ongoing efforts to improve language teaching practices and enhance language learning outcomes for EFL learners.

For this purpose, the current study proposed the following research questions:

**RQ1:** Does peer scaffolding significantly affect the speaking performance of Iranian EFL learners?

**RQ2:** Does teacher scaffolding significantly affect the speaking performance of Iranian EFL learners?

**RQ3:** Is there a significant difference between the effects of peer scaffolding and teacher scaffolding on the speaking performance of Iranian EFL learners?

In line with the above research questions, the following null hypotheses were formed:

**H01:** Peer scaffolding makes no significant impact on improving the speaking performance of Iranian EFL learners.

**H02:** Teacher scaffolding makes no significant effect on improving the speaking performance of Iranian EFL learners.

**H03:** There is no significant difference between the effects of peer scaffolding

and teacher scaffolding on improving the speaking performance of Iranian EFL learners.

## **2. Method**

### **2.1. Participants**

For this study, a total of 60 female English students from one of the branches of Safir Language Academy were selected using convenience non-random sampling technique which involved choosing the most readily available students. The participants ranged in age from 18 to 25. A PET exam was administered to ensure the participants were homogeneous in terms of overall language proficiency. To select the required participants, the PET, which includes all four language skill subtests, was given to the initial 75 EFL learners. Sixty intermediate learners whose scores fell within the range of  $\pm 1$  standard deviation from the mean were chosen for the study and divided into two experimental groups and one control group, with each group consisting of 20 learners.

### **2.2. Instrumentation**

#### **Preliminary English Test (PET)**

The Preliminary English Test (PET) was utilized in this study to select homogeneous participants. All the four main language skills including reading, writing, listening, and speaking were included in this test. More precisely, the test was made up of four papers, reading (paper 1), writing (paper 2), listening (paper 3), and speaking (paper 4). The researcher himself and one of his colleagues who held MA in TEFL with at least five years of teaching experience rated the writing and speaking sections of the test and the inter-rater reliability of the scores were checked running Pearson Correlation coefficient.

#### **Speaking Pre-treatment test**

The speaking scores from the PET speaking section were used for homogeneity purposes by the researcher to ensure that there were no significant differences between the two groups' speaking performance prior to the main investigation.

#### **Speaking post-test**

The researcher administered a posttest speaking exam using a different version of the

PET, to participants in both groups. This posttest was administered to assess whether there were differences in the participants' speaking performance as a result of the varying treatment modalities: peer scaffolding, teacher scaffolding, and the traditional method.

The post-test speaking test was run with two raters, the same as in the pre-treatment speaking test. In other words, each participant had an interview with two raters for about 10-12 minutes. The speaking post-test was exactly like the one used at the beginning of the study and the procedure was the same as the pre-treatment test. However, the tasks chosen from the Bank of PET speaking section were different.

### **Speaking Rating Scale**

Since the speaking part of the PET is regarded as a level B1 speaking test, the rating scale used to grade the speaking element was derived from the University of Cambridge ESOL Examinations paper under the name of evaluating Speaking Performance-Level B1. This scale was selected because, in accordance with the guidebook, it is a thorough rating scale that, in its numerous administrations in diverse evaluation contexts, has produced inter-rater reliability of above .81. The rating scale was divided into four sections: interactive communication, discourse management, grammar and vocabulary, and pronunciation. Each sector had a maximum of five marks and a minimum of zero.

### **List of Words for Instruction**

To determine the vocabulary items for the study, a vocabulary placement test developed by Cambridge University Press (2005) was first used. The test comprised 150 items that assessed the participants' vocabulary from elementary to advanced levels. Respondents were required to answer every question, and they just kept going as long as they were familiar with the terms.

A list of target words was created in order to teach the terms using peer/teacher scaffolding techniques. This list was created using the results of the vocabulary test the participants took at the beginning of the study. Stated differently, questions selected for training were those to which 90% of participants answered incorrectly or never at all.

To enhance speaking practice, the author of the study chose to incorporate vocabulary lists. These lists served as valuable tools in both peer and teacher scaffolding, providing a structured way to support students in their speaking exercises. Specifically, the teacher could guide students in using the vocabulary to form sentences, encourage the use of synonyms, and motivate them to apply the vocabulary in their speech. Similarly, peers could use the lists to help each other improve their speaking skills, as outlined in the procedure. This approach effectively facilitated speaking practice.

### **2.3. Procedure**

Initially, 75 participants, selected based on convenience non-random sampling, were given a PET and the results were used to select only those learners whose scores fell within the range of +/- one standard deviation. The selected subjects (who were sixty learners) were divided into two experimental groups (40 learners) and one control group (20 learners). As stated earlier, the results of the speaking section of the test was used as pre-test. Following that, a vocabulary test was given to both groups to identify the vocabulary items unknown to the learners and based on them, the treatment was given.

The peer scaffolding group of participants received a list of target words each session and instruction of the target words was carried out through peer scaffolding drawing on Nation (2001). Accordingly, students in peer scaffolding group were grouped in pairs and each student in pair received half of the target words in each session. Each student was asked to use a variety of sources like the internet, dictionary, book, etc., and find example sentences for the given words and underline the words. While back in class the next session, each pair exchanged the sentences they found and asked their partner to guess the meaning of the words. The partners were allowed to give hints like giving synonyms, and examples so that their partners were assisted in working out the meaning of the unknown words. This stage (noticing stage as in Nation, 2001) was to familiarize the students with the target words and draw their attention on the words they were going to learn. As for the next session, the same procedure continued plus two extra exercises. In one of the exercises, students in pairs read the sentences from the previous session and asked their partner to give the meaning of the unknown words. For instance, one student would read "I can't find my specs anywhere, have you seen them?" and then asked "what is the meaning of

specs". This stage was in line with retrieval stage of Nation (2001). In the other exercise, students were asked to produce example sentences orally containing the target words which was in line with generation stage of Nation (2001).

As for the teacher scaffolding group, the same procedure was utilized with minor changes. First of all, all the vocabulary items were presented by the instructor without being split. Secondly, as in peer scaffolding, the instructor presented the new words in sentences and students guessed the meaning (noticing). In the next session, the same sentences were read by the instructor and students were encouraged to remember the meaning (retrieval), and finally in the same session, students were asked to produce a sentence orally containing the new words (generation).

As for the control group, the participants followed the conventional syllabus of the institute and neither peer nor teacher scaffolding was provided. Upon finishing the treatment, the researcher gave the three groups a speaking posttest and the scores were used to address the research questions.

#### **2.4. Design**

There were between-group comparisons on the pretest and posttest in this quasi-experimental study. The lack of randomization in the sampling process made the design quasi-experimental. There were three groups, comprising two experimental groups each representing a teacher and peer scaffolding technique and they were compared to the control group. Peer scaffolding was administered to one experimental group, while teacher scaffolding was administered to the other; both treatments accounted for the independent variable. Speaking ability among students was the dependent variable, and it was assessed both before and after the treatment (pretest and posttest). To reduce the potential detrimental impact of participant variances in language proficiency on the study's outcome, language proficiency was controlled in the current investigation. As long as participants performed equally on the pretest, this design allowed for the tracking of the treatment's impact on the posttest.

Both descriptive and inferential statistics were used to answer the research questions. Through descriptive statistics, participants' speaking performance in terms of mean score and standard deviation was described both before and after the treatment. To compare the participants statistically to track any significant differences, inferential statistics (One-way ANOVA) was employed. Other inferential statistics



pertinent to One-way ANOVA like normality check and homogeneity of variances were also utilized.

### 3. Results

The main instrument of the study was PET. To estimate reliability of the speaking and writing sections, inter-rater reliability was employed. Table 1 shows the results of correlation coefficients for inter-rater reliability of PET speaking section.

**Table 1.**

*Inter-rater Reliability of PET Speaking Section*

Writing		Rater 2
Rater 1	Pearson Correlation	.71**
	Sig. (2-tailed)	.000
	N	30
Speaking		Rater 2
Rater 1	Pearson Correlation	.73**
	Sig. (2-tailed)	.000
	N	30

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

Based on the results of correlation analysis, inter-rater reliability index of speaking section was above 0.70. Accordingly, it can be suggested that PET was reliable for the purpose of the current study.

#### 3.1 Selection Process and Homogeneity of the Participants in Terms of Speaking Performance on Pretest

In the first step, it was needed to choose participants with homogeneous English language proficiency. As stated earlier, PET was used for this purpose. Table 2 shows the descriptive statistics for the PET scores belonging to the initial 75 learners.

**Table 2.**

*Descriptive Statistics of 75 Students on PET*

Variables	N		Mean	Std. Deviation	Minimum	Maximum
	Valid	Missing				
PET	75	0	38.6667	2.63210	28.00	45.00

As clearly outlined earlier, those students with scores below and beyond the mean score  $\pm 1SD$  were removed from the study leading to a homogeneous group of

students in terms of language proficiency. Table 3 shows the statistics of 60 students whose scores fell within  $\pm 1SD$  mean score.

**Table 3.**

*Descriptive Statistics of the Participants on PET after Removing the Students with Scores Below and Beyond Mean Score  $\pm 1 SD$*

Variables	N		Mean	Std. Deviation	Minimum	Maximum
	Valid	Missing				
Homogenized PET	60	15	39.321	1.98376	30.00	43.00

After selecting 60 homogenized learners in terms of language proficiency, they were divided into three groups of 20. A One-way ANOVA was run on the speaking pretest scores to make sure that the three groups were homogenized in terms of speaking performance prior to the treatment. Table 4 shows the descriptive statistics of the groups in terms of pretest scores.

**Table 4.**

*Descriptive Statistics of the Groups in Terms of Pretest Scores*

Task based	20	6.9000	1.86096	.41612
Focus on forms	20	6.8500	2.23120	2.66112
Control	20	6.5500	2.16370	.48382
Total	60	6.7167	1.98376	.25610

Before running ANOVA, it was necessary to make sure that the data sets met the assumption for this test. The main assumption for ANOVA is the normality of the scores. Table 5 displays the results of Levene's test for the pre-test Scores.

**Table 5.**

*Results of Levene's test for the Pre-test Scores*

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
	2.255	2	17	.124

As seen in the table above, the sig. equals .124 which is higher than the confidence level of 0.05 indicating that the normality assumption is met. Table 6 demonstrates the results of ANOVA.

**Table 6.***Results of ANOVA on Pretest Scores*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.233	2	.617	.152	.859
Within Groups	230.950	57	4.052		
Total	232.183	59			

Results of ANOVA (Table 6) showed that the groups were not significantly different from each other in terms of pretest scores,  $F = 0.152$ ,  $P \leq 0.05$ . Accordingly, it was concluded that participants of the study were homogenized in terms of speaking before receiving treatment. Afterwards, students underwent treatment and at the end of the treatment, the three groups were given speaking posttest the results of which were used to address the research questions.

### 3.2 Addressing the Research Questions

To investigate the research questions of the current study, a One-way ANOVA was run on the posttest scores of the three groups. Table 7 displays the results of Levene's test for the post-test Scores.

**Table 7.***Results of Levene's test for the Pre-test Scores*

Test of Homogeneity of Variances			
Levene Statistic	df1	df2	Sig.
3.442	2	17	.321

As seen in the above table, Levene's test produced a significant value ( $p = .321$ ), which is higher than the standard alpha level of 0.05., indicating that the normality assumption is met. More precisely, since the p-value is greater than 0.05, the assumption of homogeneity of variances is met. This means that the variance in speaking performance across the three groups (Peer Scaffolding, Teacher Scaffolding, and Control) was roughly equal, justifying the use of ANOVA. Table 8 demonstrates the results of ANOVA.

**Table 8.**

*Result of ANOVA on the Posttest Scores*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	332.033	2	166.017	39.404	.000
Within Groups	240.150	57	4.213		
Total	572.183	59			

ANOVA indicated that significant differences existed between the three groups of the study,  $F=39.40$ ,  $P \leq 0.05$  on the speaking posttest. Based on this result, it can be concluded that somewhere between the groups significant differences existed which means that at least one of the groups outperformed the other two groups or one of the groups outperformed the other one. However, ANOVA alone does not specify which groups differ from each other. This requires further analysis using post hoc tests, and to do so, post hoc test of Tukey was run. Table 9 presents the results of multiple contrasts employing the post hoc test of Tukey.

**Table 9.**

*Results of Multiple Comparisons by Tukey Test*

	(I) Method	(J) Method	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	Peer Scaffolding	Control	-4.75000*	.64909	.000	-6.3120	-3.1880
		Teacher Scaffolding	.45000	.64909	.768	-1.1120	2.0120
	Control	Peer scaffolding	4.75000*	.64909	.000	3.1880	6.3120
		Teacher Scaffolding	5.20000*	.64909	.000	3.6380	6.7620
	Teacher Scaffolding	Peer scaffolding	-.45000	.64909	.768	-2.0120	1.1120
		Control	-5.20000*	.64909	.000	-6.7620	-3.6380

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

**Peer Scaffolding vs. Control Group:** The mean difference is  $-4.75000^*$  ( $p = .000$ ), indicating a significant improvement in the peer scaffolding group compared to the control group.

**Teacher Scaffolding vs. Control Group:** The mean difference is  $-5.20000^*$  ( $p = .000$ ), indicating a significant improvement in the teacher scaffolding group compared to the control group.

**Peer Scaffolding vs. Teacher Scaffolding:** The mean difference is  $-.45000$  ( $p = .768$ ), which is not significant.

The significant results ( $p = .000$ ) between both the Peer Scaffolding and Control group, and the Teacher Scaffolding and Control group suggest that both scaffolding methods (peer and teacher) significantly improved the speaking performance of the participants compared to those who received no scaffolding. This rejects the first two null hypotheses (H01 & H02). More precisely, Peer scaffolding and Teacher scaffolding had a significant positive effect on improving the speaking performance of Iranian EFL learners. However, the lack of significant difference ( $p = .768$ ) between the Peer Scaffolding and Teacher Scaffolding groups indicated that both methods were equally effective in enhancing speaking skills, supporting the third null hypothesis (H03). That is to say, there is no significant difference between the effects of peer scaffolding and teacher scaffolding on speaking performance.

The study's findings contribute to the understanding of scaffolding in language learning by demonstrating that both peer and teacher scaffolding are effective strategies for improving speaking skills among EFL learners. The use of a One-way ANOVA was appropriate for comparing the mean scores across the three groups, as the Levene's test confirmed the assumption of homogeneity of variances. The significant results from the ANOVA indicated the need for further investigation, which was effectively carried out through the post hoc Tukey test.

The Tukey test results showed that both peer and teacher scaffolding methods significantly outperformed the control group, highlighting the value of structured support in language learning. However, since there was no significant difference between the effects of peer and teacher scaffolding, educators might consider using either approach depending on the context and available resources, as both methods offer comparable benefits.

The rejection of the first two null hypotheses and the acceptance of the third provide a clear direction for educators looking to enhance speaking skills in EFL contexts. By utilizing scaffolding (whether peer or teacher-based) language instructors can facilitate more effective language acquisition and communication skills among learners.

#### **4. Discussion**

The current study set out to examine the effects of teacher and peer scaffolding on the

speaking performance of Iranian EFL learners. It also aimed to investigate whether there were any notable distinctions between the impacts of teacher and peer scaffolding on speaking performance. The results of the One-way ANOVA indicated that both peer and teacher scaffolding had a significant impact on speaking performance. However, there was no discernible difference between the effects of peer and teacher scaffolding on speaking performance.

These findings align with recent studies, such as those by Zhang and Thomas (2018), which found that teacher scaffolding significantly facilitates students' acquisition of various language components and skills. The outcomes also correspond with research by Rezaei and Shokrpour (2011), Li and Li (2017), and Jones and Carter (2019), who all reported a significant impact of peer scaffolding on language learners' speaking and writing abilities.

The fact that there was no discernible difference between the two forms of scaffolding—peer and teacher—and that both had a major impact on the students' speaking performances suggests that both have the potential to improve speaking. This shared effectiveness may be attributed to the fact that both peer and teacher scaffolding stem from the same underlying theoretical framework, namely Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD). The ZPD represents the difference between what learners can achieve independently and what they can achieve with guidance from someone more knowledgeable (Kozulin, 2018; Vygotsky, 1978).

Scaffolding, as described by Vygotsky, is the support provided by a more knowledgeable individual—whether a teacher or a peer—to help the learner transition smoothly from their current level of understanding to the target knowledge (Van de Pol, Volman, & Beishuizen, 2019). This support, whether provided by teachers or peers, serves to reduce the learner's uncertainty and confusion (Lantolf & Poehner, 2018; Zheng, 2016).

Given that both methods are rooted in the same theoretical framework, it is perhaps unsurprising that they yield similar results. Both methods provide the necessary support to help learners reach higher levels of performance, emphasizing the importance of social interaction and collaboration in language learning (Mitchell & Myles, 2004). Moreover, the interpersonal dynamics between peers, such as their

relative language proficiency and willingness to cooperate, can influence how effective peer scaffolding is in a given context. In contrast, teacher scaffolding is generally more consistent, as teachers are trained to provide appropriate support regardless of the learner's individual differences.

## 5. Conclusion

The results of the study revealed that speaking performance was considerably enhanced by scaffolding from peers and teachers. Interestingly, there was no discernible difference in the effects of teacher and peer scaffolding, indicating that both strategies are equally successful in improving L2 learners' speaking skills. This research highlights the adaptability and effectiveness of scaffolding in language acquisition.

Scaffolding, as a pedagogical strategy, plays a crucial role in supporting L2 learners by providing temporary assistance that gradually fades as learners gain independence. This support can come from teachers or peers and can take various forms, such as modeling, questioning, feedback, and collaborative learning. Each method can be tailored to meet the specific needs of learners, providing them with the appropriate level of support at different stages of their language development (Van de Pol et al., 2019).

The study highlights that the positive impact of scaffolding on speaking performance is rooted in its alignment with Vygotsky's Zone of Proximal Development (ZPD). By offering the necessary support within the ZPD, scaffolding enables learners to achieve higher levels of performance than they could independently (Lantolf & Poehner, 2018). Therefore, incorporating both peer and teacher scaffolding into language instruction can create a comprehensive and effective learning environment that promotes significant improvements in L2 speaking proficiency.

Given the findings of this study, further research could explore several related areas to deepen our understanding of scaffolding in language learning:

**Longitudinal Studies:** Future research could examine the long-term effects of teacher vs. peer scaffolding on speaking skills. It would be valuable to investigate whether one type of scaffolding leads to more sustained improvements in speaking ability over time.

**Task Complexity:** Further research could investigate how the complexity of the speaking tasks influences the effectiveness of teacher vs. peer scaffolding. For instance, teacher scaffolding might be more effective for complex tasks that require a higher level of linguistic accuracy, while peer scaffolding could be more beneficial for tasks that emphasize fluency and creativity.

**Learner Characteristics:** Another area for future research could be the role of individual learner characteristics, such as age, proficiency level, and learning style, in determining the effectiveness of teacher vs. peer scaffolding. Understanding how these factors interact with scaffolding types could help tailor scaffolding strategies to different learners.

**Cultural Context:** Since this study was conducted with Iranian EFL learners, it would be interesting to investigate whether the findings hold true in different cultural contexts. Research could explore how cultural norms and expectations regarding teacher-student and peer-peer interactions influence the effectiveness of scaffolding.

**Technology-Enhanced Scaffolding:** With the increasing use of technology in language education, future research could examine the effectiveness of digital platforms that provide scaffolding through teacher or peer interactions. This could include online discussion forums, collaborative writing tools, or language learning apps that facilitate scaffolding.

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**Designing a native entrepreneurship education model for higher education: A qualitative study****Article info****Article Type:**

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**Abstract**

In today's competitive world, universities and organizations are successful that are able to make the most of information and knowledge. For this reason, many universities have started knowledge orientation through entrepreneurship education. The aim of the present study was to investigate scientific articles and researches in relation to entrepreneurship education model. To identify the elements of the native model of entrepreneurship education, a qualitative approach and content analysis method was used. Therefore, for this purpose, 50 articles developed by local and international authors were reviewed. Findings showed that entrepreneurship education model can be classified in three dimensions of capability-oriented, personality-oriented and lesson-oriented themes, which can be used to design a native model of entrepreneurship education in higher education.

**Keywords:** Entrepreneurship Education Models, Entrepreneurship Education, Native Model, Higher Education, Entrepreneurship Centers

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## 1. Introduction

The progress and dynamism of a society depends on constructive and creative people, and a society will be able to achieve real development only when this development arises from within the society whose people explore issues, analyze, find obstacles and overcome them. Therefore, the first step to move towards development is recognition of the current situation to determine the desired situation and hence the need for research in the higher education sector is felt more than ever (Malekipour et al., 2019).

It seems necessary to cultivate creative and entrepreneurial ideas that can constantly adapt to the new world. Given that universities have a major role in educating and training specialized human resources in society, attention to university entrepreneurship education (higher education) will help to better develop this. Entrepreneurship education plays an important role in the development of learners' lives and the subsequent comprehensive development of communities (Boahemaah, Dogbe, and Pomegbe, 2020). Considering the cultural and empirical role of entrepreneurship, it indirectly supports the idea that entrepreneurship is influenced by educational measures (Adejimola & Olfan Milai, 2009).

Three important issues for innovators and entrepreneurs are: knowledge, skills and attitudes. In most formal trainings, the first item is addressed comprehensively and analytically; the second item is considered incompletely and cannot be easily seen in formal education systems and the third item is not addressed at all (Safari et al., 2012). Since communication networks have connected different markets for the production and supply of services at the national, regional and global levels and have considered competitiveness as the key to entering these global markets, it is obvious that in this global competition, not only countries, but all institutions and individuals must constantly increase their competitiveness and compatibility (Ahmadpour Dariani, 2002).

An important issue that has caused the need to pay attention to competition and entrepreneurship is the problem of unemployment, which the country is struggling with, so that it seems that encouraging entrepreneurs and self-employment as appropriate solutions by policymakers and Economic managers to be considered (Bazargan & Jafarzadh, 2004). Indeed, unemployment among young people,

especially graduates, has become an obstacle to economic growth of some countries and citizens (Boahemaah et al., 2020). The solution to this important issue is student entrepreneurship and support. (Hou et al., 2019). Entrepreneurship education has a positive effect on the development of youth entrepreneurial spirit, their intention to start a business, their employability and ultimately their role in society (Betáková et al., 2020).

Entrepreneurship education has the ability to cover some of the shortcomings in the existing educational system. First, the development of the necessary entrepreneurial skills in the educational system will lead to an increase in the training of future entrepreneurs in the country. In such an education system, the skills taught lead to lower unemployment, increased establishment of new institutions, and increased employment and existing businesses (McMullan & Long, 1987). Proponents of the need for entrepreneurship education believe that education plays a vital role in the economic growth of societies. Research related to entrepreneurship education suggests that entrepreneurial education leads people to entrepreneurship by influencing people's attitudes (McMullan & Long, 1987). Unfortunately, the accuracy of educational content, business issues and problems in society and their transfer to educational programs and university curriculum is ignored (Nguyen et al., 2023).

In order to be able to purposefully bring students and university graduates into the job market tailored to their field of study, the most important issue is to discuss how to place business and entrepreneurship in designing a curriculum tailored to the student's field of study. (Purwana & Widyastuti, 2017). Unfortunately, some universities are not active in this regard. In fact, what is not considered in the curriculum in universities is the accuracy of the educational content, business issues and problems in the community and their transfer to the curriculum. Paying attention to this issue in universities is important to increase the effectiveness of educational programs. Entrepreneurship education can improve the understanding and experience of young people and increase their level of self-efficacy (Nguyen et al., 2023, p. 189). According to the findings of several studies, it is revealed that the top universities in the world have reached the conclusion that entrepreneurship can be increased among students through entrepreneurship and formal university education (Ndofirepi, 2020; Huda, 2020; Murphy et al., 2019; Čapienė & Ragauskaitė, 2017).

It seems that with reviewing and identifying the documents related to the

entrepreneurship center of Tehran University and also examining the successful global models in the field of entrepreneurship education, their successful experiences can be used to provide a native model of entrepreneurship education in universities in Iran. Therefore, by conducting this research, it is hoped to identify the skills-enhancing components in student entrepreneurship education and to apply these components in the native Iranian model of entrepreneurship education and use its results to promote student entrepreneurship education in higher education. So, this research attempted to provide a framework for promoting entrepreneurship education in higher education. To serve that end the following research question was proposed:

- What are the characteristics of native entrepreneurship education model for higher education?

## **2. Methodology**

This study employed a qualitative approach (Content analysis). Strauss and Corbin's three-stage coding (1990) method was used to analyze the data. This method consists of three stages of open coding, axial coding, and selective coding (Creswell, 2009). To identify the elements of a native model of entrepreneurship education, 50 domestic and international articles were reviewed. Then, the coding was done and the extracted categories and codes were sent to experts who mastered how to do qualitative research. To assess the reliability of data, the opinions of a group of experts who had sufficient knowledge about the various dimensions and aspects of the research topic were also sought. To assess the validity of the findings of this research, the extracted themes were sorted and confirmed by studying the theoretical foundations, research background, opinions and guidelines of the group of experts and final coding was done. Therefore, the researcher used experts who had experience in entrepreneurship education in higher education to provide comments on coding. For this purpose, 735 extracted open codes were sent to two experts who had sufficient experience in the field of entrepreneurship training and the Kappa Cohen index was calculated using SPSS 23 software. The Kappa value was 0.65 which according to Landis and Koch (1997), the value was acceptable.

### 3. Findings

After reviewing scientific documents and interviewing experts, three stages of open, axial and selective were done as follows:

#### Stage 1: Open coding

During the open coding phase, the articles and interview transcriptions were read recursively and the data were broken down, examined, and compared, so that patterns and codes could be identified. A list of open codes which were emerged at this stage is provided as appendix.

#### Stage 2: Axial coding

At this stage, based on the similarities between open codes axial coding was performed. Then, three main themes and their sub-themes were formed. These themes included personal skills level, general skills level, and university skills specialization level which are presented in the following table:

**Table 1.** Axial coding

Personal skills Level (personal empowerment)	General skills Level (workplace empowerment)	University Skills Specialization Level (Career Empowerment in Higher Education)
<ul style="list-style-type: none"> <li>• Inspirational motivations</li> <li>• Internal control center</li> <li>• Adaptation to new conditions</li> <li>• Decision making</li> <li>• Tolerance of ambiguity</li> </ul>	<ul style="list-style-type: none"> <li>• Work experience</li> <li>• Discovering new idea</li> <li>• Creating cooperation</li> <li>• Self-efficacy</li> <li>• Need for position</li> <li>• Consulting services</li> <li>• Marketing-Knowing the market</li> <li>• Opportunity recognition</li> <li>• Problem solving</li> <li>• Self-confidence</li> <li>• Managerial experience</li> <li>• Leadership</li> <li>• Innovation</li> <li>• The ability of interpersonal communication</li> <li>• Planning</li> <li>• Risk taking</li> <li>• Team work</li> <li>• Creativity</li> <li>• Entrepreneurial behavior</li> <li>• Social interaction</li> <li>• Entrepreneurial experiences</li> <li>• Initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Entrepreneurial virtual environment</li> <li>• Preparing a business plan</li> <li>• Learning through participation</li> <li>• Entrepreneurial projects</li> <li>• Training courses</li> <li>• University investment</li> <li>• Learning competitions</li> <li>• Student activity</li> <li>• Extracurricular activities</li> <li>• Application of entrepreneurial knowledge</li> <li>• The role of the curriculum</li> <li>• Creating an entrepreneurial atmosphere</li> <li>• The role of entrepreneurship center</li> <li>• Entrepreneurship education approaches</li> <li>• Academic programs</li> <li>• Entrepreneurship education resources</li> <li>• Goals of entrepreneurship education</li> </ul>



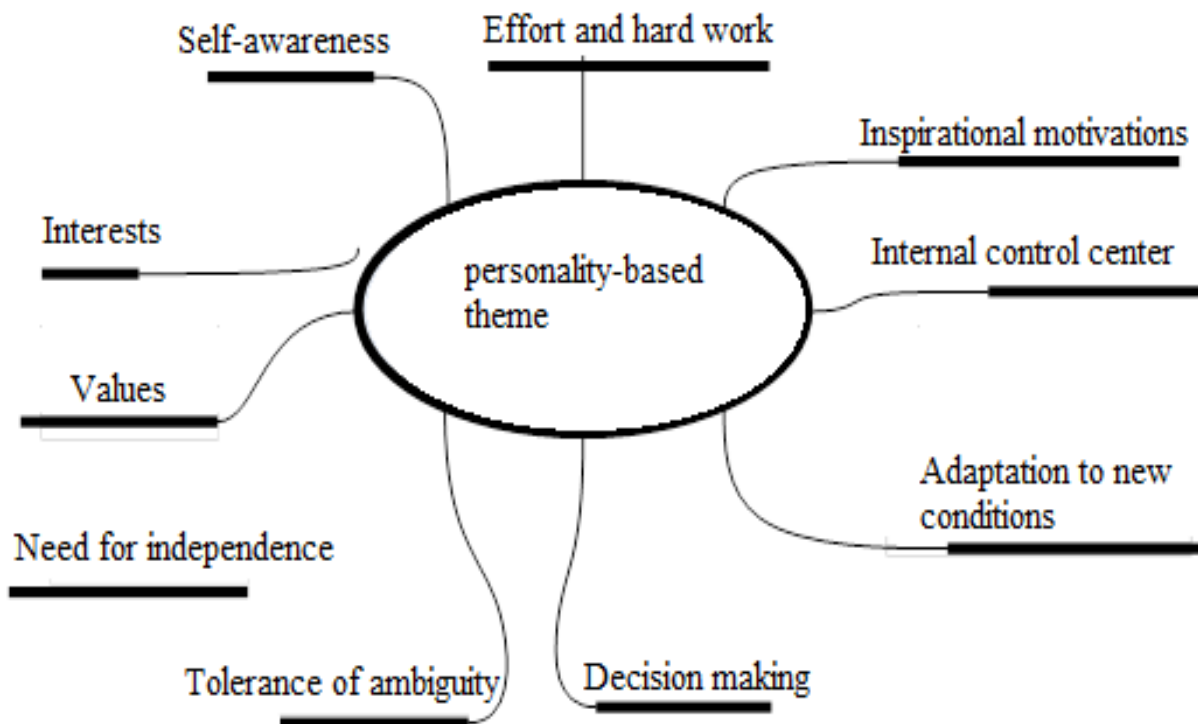
<ul style="list-style-type: none"> <li>• The need for independence</li>   <li>• Values</li>   <li>• Interests</li>   <li>• Self-awareness</li>   <li>• Perseverance and hard work</li> </ul>	<ul style="list-style-type: none"> <li>• Socialization</li> <li>• Perspective</li> <li>• Organization</li> </ul>	<ul style="list-style-type: none"> <li>• Entrepreneurship education methods</li> <li>• Content of Entrepreneurship Education Program</li> <li>• Learning through participation</li> <li>• Entrepreneurship training courses</li> <li>• Entrepreneurship education strategy</li> <li>• Indirect effect of entrepreneurship education</li> <li>• Desirability of entrepreneurial idea</li> <li>• Feasibility of entrepreneurship idea</li> <li>• Production of entrepreneurial knowledge</li> <li>• Internship in the field of entrepreneurship</li> <li>• Training of university teachers</li> <li>• Evaluation of entrepreneurial goals</li> <li>• Entrepreneurship education Support services</li> <li>• Financial resources</li> <li>• Business skills</li> <li>• Entrepreneurial perception</li> <li>• Seminar</li> <li>• Teacher</li> <li>• Oral presentation of ideas</li> <li>• Brainstorm</li> <li>• Reinforced thinking</li> <li>• Entrepreneurship workshop</li> <li>• Startup</li> <li>• Entrepreneurship tools</li> <li>• Transformation of ideas</li> <li>• Entrepreneurship tools</li> <li>• University programs</li> </ul>
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### Stage 3: Selective coding

At this stage, after removing unrelated codes, each dimension of the entrepreneurial model with its sub-components was presented in a schematic format:

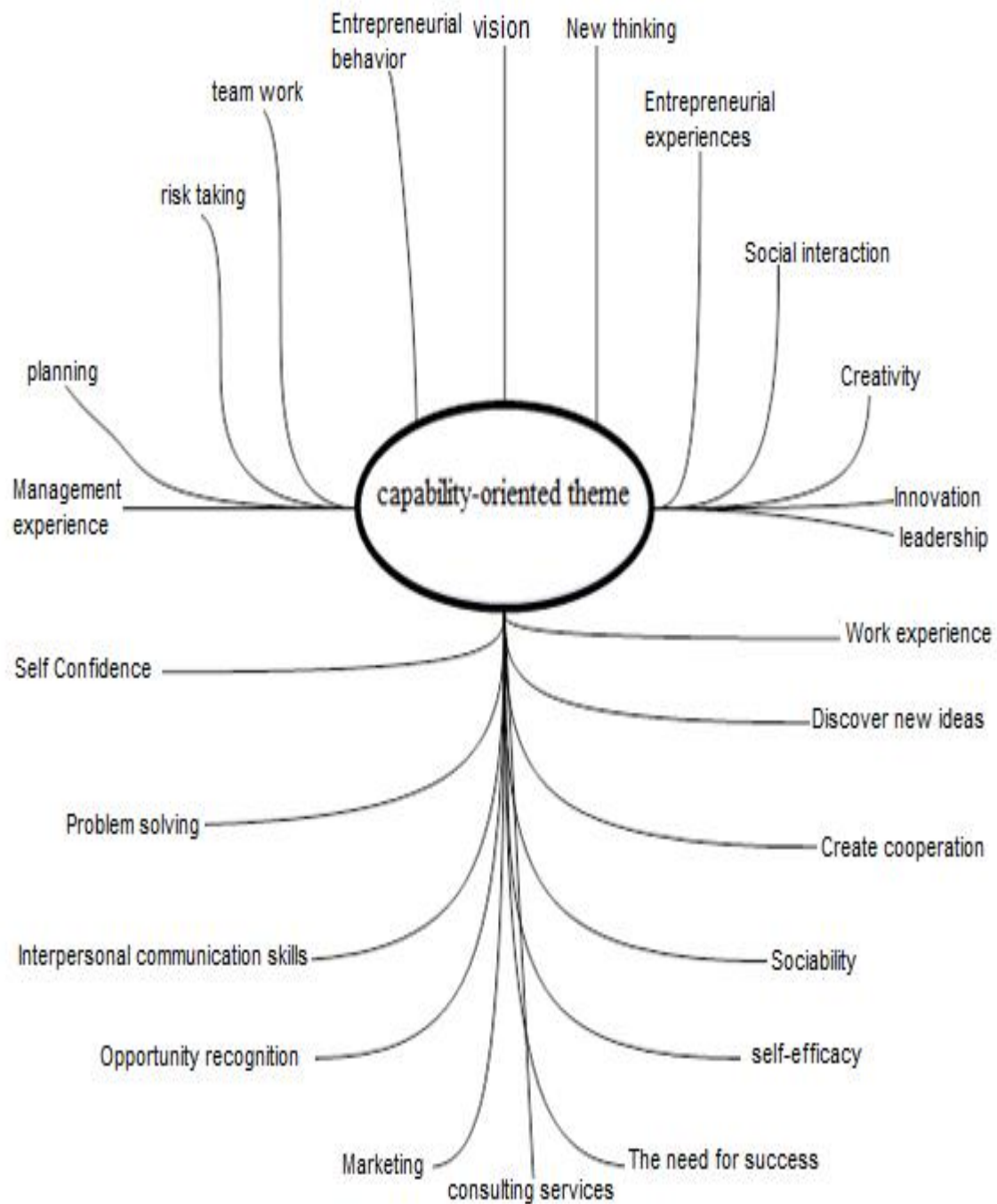
In examining the articles of entrepreneurship education and the interview data, the personality-based theme with the most frequent components of inspirational motivations, internal control center, adaptation to new conditions, decision making, ambiguity tolerance, need for independence, values, interests, self-awareness and perseverance and hard work are displayed in Figure 1. Individual skills are the skills that students acquire in the direction of personal development, life skills and other

social competencies (Amir Arjomandi, 2017).



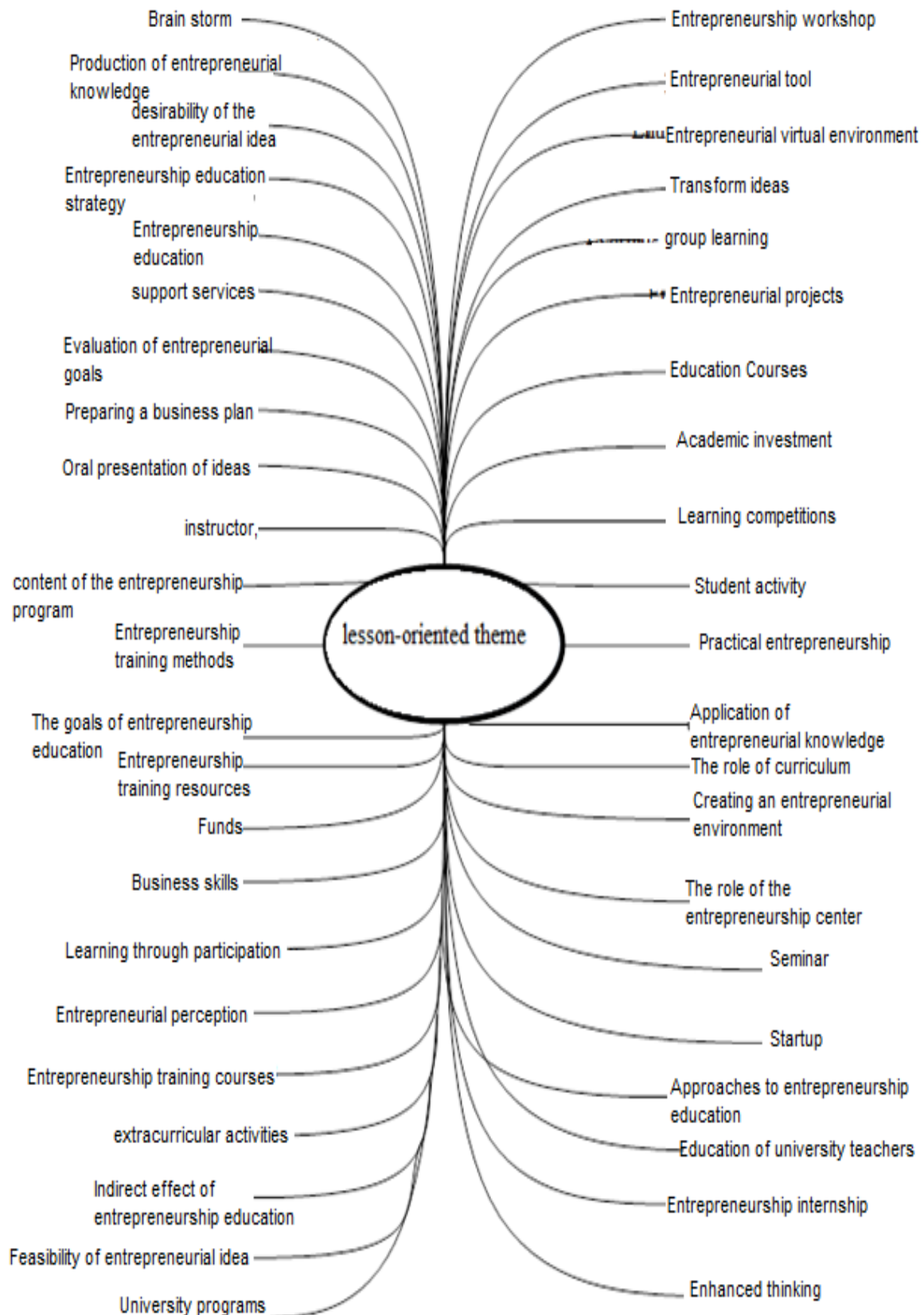
**Figure 1.** Personality-based theme

In examining the foreign models of entrepreneurship education and the interview data, the theme of capability-oriented with the most frequent components of initiative, entrepreneurial experiences, social interaction, creativity, innovation, leadership, work experience, discovering new ideas, creating cooperation, socialization, self-efficacy, need for success, consulting services market-marketing understanding, opportunity recognition, interpersonal communication ability, problem solving, confidence, managerial experience, planning, risk-taking, team working, entrepreneurial behavior and vision is shown in Figure 2. General skills are skills that help students and graduates to be able to organize and implement their responsibilities in a real work environment as an effective and useful person (Amir Arjomandi, 2017).



**Figure 2.** Capability-oriented theme

In examining the foreign models of entrepreneurship education and the interview data, the lesson-oriented theme with the most frequent components are shown in Figure 3.



**Figure 3.** Lesson-oriented theme

These components are: entrepreneurial virtual environment, idea conversion, participatory learning, entrepreneurial projects, training courses, university

investment, learning competitions, student activities, practical entrepreneurship, application of entrepreneurial knowledge, curriculum role, creation Entrepreneurship environment, the role of entrepreneurship center, entrepreneurship education approaches, enhanced thinking, seminar, university programs, entrepreneurship education resources, entrepreneurship education goals, entrepreneurship education methods, content of entrepreneurship education program, teacher, oral presentation of ideas, preparation of business plan , evaluation of entrepreneurship goals, support services, entrepreneurship education, financial resources, business skills, participatory learning, entrepreneurial perception, entrepreneurship education strategy, extracurricular activities, indirect effect of entrepreneurship education, desirability of entrepreneurship idea, idea feasibility entrepreneurship, entrepreneurship tools, entrepreneurship workshop, entrepreneurship knowledge production, brainstorming, entrepreneurship internship, startup, university programs and university educator training. Knowledge skills are the skills that are mostly knowledge-based and specific to a particular discipline. It is considered that in addition to learning theoretical courses, the student actions in order to apply their knowledge of practically are crucial (Amir Arjomandi, 2017).

#### **4. Discussion and Conclusion**

The findings of this study showed that models of entrepreneurship education were classified into three categories of ability-oriented, personality-oriented and lesson-oriented themes, which can be used in designing the entrepreneurship education curriculum for students. It seems that the ability dimension is very important in entrepreneurship education. For example, when talking about new thinking in entrepreneurship, it means breaking traditional thoughts and moving towards innovation. Another important component in entrepreneurship education is teamwork. Team work forms the heart of entrepreneurship education and basically, entrepreneurship education is impossible without paying attention to it. In this dimension, there are components such as risk-taking, self-confidence, problem-solving, etc., which all seem to be acquirable.

The second dimension in entrepreneurship education is personality dimension. In this dimension, it is very important to pay attention to values, attitudes, beliefs and

personality traits. For example, having characteristics such as effort and work, the ability to tolerate ambiguity, self-awareness and the power of control, etc. are essential prerequisites for becoming an entrepreneur. Without having the above personality traits, one cannot expect to become a successful entrepreneur.

The third dimension in entrepreneurship education is related to how to teach entrepreneurship. Entrepreneurship education should be completely different from traditional education. For example, the use of new methods such as brainstorming, team learning and cooperative learning form the basis of entrepreneurship education. It can be said that using methods such as lectures in this field is completely ineffective.

The findings of the present research are in line with the results of several other studies. For example, Huda (2020) in a study refers to the problems of traditional entrepreneurship education in tertiary universities and to solve this problem suggests 9 steps as training steps of practical entrepreneurship model, which are, considering the motivations and capabilities of students. In the present study, this component was highlighted with 23 frequencies in 50 articles reviewed on entrepreneurship education. According to the review of articles and global models of entrepreneurship education that are categorized under "capability-oriented" models, we can include such components as work experience (practical work), discovering new ideas, creating cooperation, self-efficacy, the need for success, consulting services, market recognition, opportunity recognition, problem solving, confidence, managerial experience, leadership, innovation, interpersonal communication ability, planning, risk taking, team working, creativity, entrepreneurial behavior, social interaction, entrepreneurial experiences. Huda also noted the initiative, sociability, vision and organization in providing a local model tailored to the needs of higher education students.

In terms of examining patterns of entrepreneurship education based on personality, Purwana and Widyastuti (2017), examined the personality traits of students as academic learning. In their research, the authors referred to the personality traits of creativity, innovation, commitment to work, self-confidence, progress and risk-taking, and leadership, and stated that how planned learning in the university curriculum as well as extracurricular learning could shape and strengthen the personality traits of individuals.

Moraes et al. (2018) studied the effects that the entrepreneurial characteristics of individuals and the university environment had on students' entrepreneurial intentions, and the authors' greatest emphasis was on self-efficacy and risk-taking, which can lead to entrepreneurial attitudes, in which is to Similar previous research and was also highlighted in Figure 2. In fact, there is a positive relationship between students' personality traits and motivation to become an entrepreneur. It should be noted that in examining the frequency of components of the research results, it was shown that motivation and personality traits of individuals with 23 repetitions and the highest frequency of effective components in entrepreneurship education programs were the main factors of student employment.

In the study conducted by Chen et al. (2020), the effect of entrepreneurship education on the intention to start a business from desirability, feasibility and perceived risk perspectives was examined. The results showed that both desirability and feasibility activated the relationship between entrepreneurship education and entrepreneurial intention. Regarding the feasibility of entrepreneurship education and risk, the probability of entrepreneurship intention and job creation of students increased. Focusing on the entrepreneurial motivations of individuals such as the need for success, the need for independence and economic motivations, Barba-Sánchez and Atienza-Sahuquillo (2018) pointed out that proper entrepreneurship education would lead to the realization of entrepreneurial goals and employment.

In the conceptual model of Ndofirepi (2020), the effect of entrepreneurship education on motivation and personal characteristics of individuals was examined and among the three characteristics of need for success, risk-taking and internal control center, the need for success had a significant effect. All the mentioned components in the above research are consistent with the results of the present research which were presented with a significant frequency in the figures. As a final result and considering all the components adopted from reviewing articles of entrepreneurship education and the interview data, it can be concluded that to prepare courses and programs of entrepreneurship education for students and design the topic of entrepreneurship curriculum for students, paying more attention to the components of attitude and considering the personality traits of students are very important and effective variables in achieving effective and acceptable results in entrepreneurship education.

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## Appendix

### Open codes extracted from articles and research

Open codes
<p>entrepreneurial self-efficacy - entrepreneurial intent - identifying entrepreneurial opportunity technology - practical experience - market understanding - communication, management and leadership skills - cooperation - awareness of innovation - financial resources - practical contexts - market awareness - entrepreneurial environment - promoting innovation and creativity capacity - holding entrepreneurship courses - practical activities - professional knowledge and technology - providing business support - turn knowledge into action entrepreneurship curriculum - entrepreneurship versions - internship opportunity - entrepreneurial experience graduate entrepreneurs - student entrepreneurs - entrepreneurship intention - entrepreneurship counseling - student awareness for entrepreneurship - sharing knowledge and experience - exposure to courses - networking - student participation in entrepreneurship project - investment leap program - entrepreneurship awareness program- methods and tools for innovation and problem solving - entrepreneurship-based training - business plan program entrepreneurship training courses - theoretical and practical units of entrepreneurship teaching - learning the knowledge and skills required for entrepreneurship - entrepreneurship training center - entrepreneurship professors - financial resources - entrepreneurship center entrepreneurship career options - entrepreneurship education programs - entrepreneurship courses and classes - entrepreneurship center - funding - university faculty members and entrepreneurship professors - executive management - development and research activities practical entrepreneurship activities - academic credibility of professors - combination of academic activities and practical activities - university curriculum - practical education of students creating an entrepreneurship university - supporting students - business acumen - business investment - business project - setting up an independent and small business - teaching entrepreneurial knowledge - entrepreneurial thinking training - business plan training entrepreneurial self-efficacy - sociability - planning - leadership - innovation - risk-taking - entrepreneurial intent - university environment entrepreneurial investment - strategic and predictive planning - marketing - idea development - opportunity - creativity - practical entrepreneurship entrepreneurial skills - entrepreneurship education - identifying entrepreneurial opportunities - innovation entrepreneurial intention - entrepreneurial self-efficacy - entrepreneurial motivation - entrepreneurial education entrepreneurial intention - theoretical and practical entrepreneurial learning - educational approaches - planned behavior entrepreneurship training - feasibility study - predictive program - entrepreneurship intention - entrepreneurial behavior creativity - confidence - internal control center - entrepreneurship program evaluation - business development - updating instructor information - maintaining intrinsic creativity in young people's minds - updating projects discovering new ideas - entrepreneurship network - creating collaboration - solving experiencing problems - foresight - curriculum - initiative - communicating - searching for opportunities - presenting ideas - converting ideas - producing valuable products or services - entrepreneurship area - entrepreneurship companies - entrepreneurship workshops - teacher training - participatory and transformational leadership entrepreneurial motivation - entrepreneurial education - entrepreneurial self-efficacy - entrepreneurial intention technical interaction - support for innovation - business companies - financial interaction - social interaction - link to international, national, regional innovation systems - knowledge production - knowledge transfer - knowledge application - attention to individual needs organizational behavior - improving awareness and ability to cope with opportunities - practical entrepreneurship - entrepreneurial university - changing and growing society entrepreneurial motivations - team building - development of creative thinking skills - internship in entrepreneurship - impact of program policymakers - business plan development - entrepreneurship development exhibition - feedback mechanism - records, follow-up and support in the future necessary motivations for business - thinking - step-by-step progress to action - risk</p>

limitation - practical entrepreneurship - involvement of curious learners - new ideas and concepts - entrepreneurship education - appropriate environment for entrepreneurship education - development of confidence - resistance and hard work - adaptability - value creation through research and increasing levels of self-efficacy - team building entrepreneurial discipline in teachers - practice in entrepreneurship - experience - practical entrepreneurship - financial literacy - business ownership - creativity - innovation - commitment - marketing skills - business plan development - problem solving - risk - leadership - progress - confidence - appropriate decision - entrepreneurial behavior - academic climate - growth centers - competition - team building - central board or guided committee - expansion of side development activities - foundation for making different budgets - academic entrepreneurship encouragement center - integrating entrepreneurial culture innovation - self-efficacy - sociability - planning - leadership - risk-taking - entrepreneurial attitude - entrepreneurial intent - university environment attitudes towards entrepreneurial behavior - mental norm - internal control center - entrepreneurial goal - entrepreneurial behavior mental development of entrepreneurial characteristics - emotional intelligence - emotional, emotional and cognitive learning - implicit knowledge - intuitive strategy - comprehensive management - perspective and feeling - entrepreneurial values - confidence building - design and development of entrepreneurial organization - entrepreneurial management in various fields internship - business opportunities - team building - business plan - commitment - leadership - opportunity - ambiguity - at risk uncertainty - creativity - self-confidence - ability to adapt - lack of motivation - marketing - investment - entrepreneurial environment - practical entrepreneurship - strategy - business knowledge and skills - teamwork - simulation - problem solving mental norms - emotional competencies - attitude - self-efficacy - entrepreneurial intention - emotional intelligence - entrepreneurial attitude desirability of conditions - feasibility of ideas - entrepreneurship training - considered risk - entrepreneurship intention positive feeling of entrepreneur - entrepreneurship education - exploitation of business opportunities - direct effect of individual emotions - indirect effect of individual emotions entrepreneurial motivation - need for success - need for independence - having economic motivation - entrepreneurial goal entrepreneurial motivation - emotional intelligence - entrepreneurial attitude - team building - confidence - internal control center confidence (personal assets) - risk tolerance - motivation - management and leadership experience - team cognitive experiences entrepreneurial intention - willingness to start a business - courage in risk-taking - self-efficacy - self-confidence - compatibility - recognizing job opportunities - evaluating opportunities - how to set up opportunities entrepreneurial intention - attitude towards behavior - entrepreneurial motivation - entrepreneurship resource supply - internal control center entrepreneurial attitude - internal control center - need for success - leading - risk-taking - self-efficacy having an entrepreneurial attitude - individual mental norms - center of internal control - entrepreneurial intention positive feeling - entrepreneurial attitude - team building and networking - creativity - adaptability – confidence entrepreneurship curriculum objectives - training content - training method - prior knowledge basics - motivation - personality - needs - interests - independence - work experience - values - attitudes - skills development training - lectures - group topics - case studies - presentations - problem solving - simulation - teamwork - brainstorming - personal goal setting - career planning - self-employment - market analysis skills - decision making - improved knowledge - wider job options - unstructured job prospects teaching objectives - teaching content - learning the concept of entrepreneurship - learning the entrepreneurship process - learning to be an entrepreneur - practical entrepreneurship - entrepreneurship resources - how to start a profitable small business - creating value in existing organizations and professions skills development - entrepreneurship resources academic programs - center for entrepreneurship development - seminars - training - lectures - events - conferences - business ideas - social project competitions - training practices - entrepreneurial action - business plan - supervision – support previous experience - using a business plan - enhanced thinking - approaches used to transfer knowledge and skills - business skills - creativity and identifying opportunities for innovation - interpreting role patterns - providing opportunities for risk tolerance and ambiguity and motivation for creativity excellence - the desire to succeed and the need to improve motivation to achieve excellence in self-memory - practical entrepreneurship the impact of entrepreneurship education - the need for success - the entrepreneurial goal - preparing a business plan business specific content - knowledge of how to do things without a resource - awareness of personal fit with the entrepreneurial profession - conducting market research - marketing products and services - recognizing and pursuing job opportunities - creating a business plan - developing a risk identification strategy - setting priorities (goal setting) and focus on goals - defining and establishing interpersonal leadership - motivating others - active learning - adapting to new circumstances - coping with uncertainty - having an entrepreneurial spirit - enthusiasm for entrepreneurship - self-efficacy - entrepreneurial commitment

- self-confidence - self-esteem - the need for success in the dimension of strategy (entrepreneurial goals - entrepreneurship policies - strategic embedding) in the dimension of providing resources (budget allocation - revenue generation - type of budget) in the dimension of educational infrastructure (approaches - entrepreneurship appointments - entrepreneurship research - conflicting structures) in the dimension of education and learning (training courses - curriculum - teaching methods - extracurricular activities) in the communication dimension (graduates - stakeholder relations - community participation) in the development dimension (evaluation - application-based improvement - human resource development) teaching environment - professors - management training - student-centered training - teaching methods - teaching resources roles related to trainers and participants - entrepreneurship training - training level - training audience - training objectives - necessary knowledge - training content - evaluation of training - teaching methods entrepreneurship education program content - skills needed - learning level - attitudes, values, motivations - theoretical knowledge and understanding - calculated risk - business technical skills - interpersonal communication ability and development of network relations - different dimensions of the entrepreneurial process

the role of the student - the role of the professors - basic entrepreneurial activities - teacher training - field development taking into account professional motivations, interests, needs of students - preparation - moderation in education - practical work in small groups - project presentation dimensions of education approaches (lecture - case study - entrepreneurship exposure - exhibition of oral presentation of ideas - games and competitions to persuade students - discussion of simulation / role play - group discussion - preparation of a business plan) - facilitation dimension (research - business exposure - entrepreneurial perception) - knowledge content dimension (entrepreneurship concept - government incentive role - regulations - capital resources - support services - market research - business plan - street startup) - skills dimension (communication - organization - leadership - decision - opportunity recognition - networking - time management - stress management) - entrepreneur's personality traits (need for success - center for internal control - creativity and innovation - risk-taking - confidence - vision).

learning to develop courses - business planning and innovation - use the business model to evaluate and improve skills in entrepreneurship - build a personal growth learning network - potentially interesting innovations and research - business plan using create a business canvas - work in teams - self-directed learning

growing the quality of entrepreneurship education - intentions and goals of entrepreneurship education