Curriculum Research Journal

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The comparative effects of intensive versus extensive recasts through grammar-focused tasks on Iranian intermediate EFL learners' grammatical accuracy in writing

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Abstract

Grammatical accuracy has been controversial in L2 writing, and the utility of different types of corrective feedback has been enigmatic. Therefore, the present study attempted to explicate the impact of intensive versus extensive recasts through grammar-focused tasks on Iranian EFL learners' grammatical accuracy in writing. To do so, 60 Iranian male and female EFL learners were assigned into two experimental groups (i.e., intensive and extensive groups) and one control group. After taking the Oxford Placement Test (OPT), the experimental groups received intended corrective feedback, while the control group did not receive any feedback. Then, the data were analyzed deploying both descriptive and inferential statistics. The results revealed the outperformance of experimental groups compared to the control group in the writing post-test. Also, it was concluded that extensive recast can improve EFL learners' writing performance much better than intensive recast. The findings have some fruitful pedagogical implications for both teachers and materials developers.

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1. Introduction

Writing is a fundamental communication skill (Chastain, 1988). It is a ubiquitous skill and a significant tool for learning and conveying messages (Harmer, 2003). Writing does not occur in a vacuum, and it is always embedded in a web of relationships among the components of writing (Williams & Polio, 2009).

It is generally agreed that the ability to write efficiently in a second language (L2) has become vital for many language learners worldwide (Ghoorchaei et al., 2010). The importance lies in the fact that EFL learners of English often need more linguistic means to convey their thoughts in written English (Nunan, 2003).

In second language writing (L2), the place of grammatical accuracy has been debated over the recent years. Before the advent of communicative language teaching, grammar was central to teaching methods (Ellis, 2008). Batstone (1994) affirmed the crucial role of grammar in understanding language since it offers a framework for learners to come up with their experience of learning a foreign language. In addition, grammar plays a vital role in language processing because it assists learners in getting involved in the surrounding world and building the order and structure of information (Ellis, 2008).

From a host of techniques suggested for bolstering L2 writing, feedback has embarked on a good body of scholarly research (e.g., Ashwell, 2000; Liu, 2008) in second language acquisition. Feedback is commonly used in SLA research and second language pedagogy. Feedback deals with any information a teacher offers in response to a learner's production (written or spoken) and is mostly used to address inaccuracy rather than accurate production (Tavakoli, 2012). In other words, feedback can be defined as "comments or other information that learners receive concerning their success on learning tasks or tests, either from the teacher or other persons" (Richards & Schmidt, 2002, p.199). As Lyster and Ranta (1997) put it, teachers use different kinds of corrective feedback when correcting learners' errors, from which metalinguistic feedback includes any "comments, information, or questions related to the well-formedness of the students' utterance, without explicitly providing the correct form" (p. 46).

Intensive and extensive recasts have yet to be given due attention from different kinds of corrective feedback in L2 writing. Intensive recast is provided on a single, pre-selected linguistic structure, whereas extensive recast is provided through various linguistic forms (Ellis, 2001). From a theoretical point of view, intensive recasts can be more effective compared to extensive ones since language learners usually care more about the type of feedback that concerns a single error type instead of directing at a broad type of error (Suzuki et al., 2019). However, despite the fact that some research applying intensive recasts have revealed positive results, some evidence exists that extensive feedback is reasonably practical.

The results of the studies focusing on the role of corrective feedback in L2 learning are controversial, and an ample number of studies have been conducted in the field, which has a long history. One of the major dilemmas is that the majority of findings on corrective feedback have been conflicting (Hyland & Hyland, 2006).

Recently, a good deal of scholarly research has been performed on teacher feedback. Numerous studies have attempted to shed light on various types of corrective feedback (Ashwell, 2000; Bitchener et al., 2005; Liu, 2008). Furthermore, according to Ellis (2008, p. 106), "there is no corrective feedback recipe" to apply a specific method to all learners. Similarly, Tedic and Gortari (1998) recommend that teachers provide their learners with a bundle of feedback techniques since different techniques might attract different learners. This may be justified by considering the learners' characteristics (e.g., age, needs, objectives, and proficiency level) which determine the right kind of feedback.

In addition, communicative and task-based language teaching has recently been given colossal attention. Within these approaches, there is a tendency toward eliminating correction on learners' linguistic production. The proponents of these methods believe that correction puts too much pressure and hinders learners' production (Fahim & Montazeri, 2013). Many language scholars have challenged this claim over the last decade (Hyland & Hyland, 2006). Given this,

the ultimate role of corrective feedback has been the bone of contention among many scholars and further research in this realm seems inevitable.

Another critical issue is that the role of different types of recast through grammar-focused tasks has been given a leap service in L2 writing. Lyster and Ranta (1997, p. 46) defined recast as "the teacher's reformulation of all or part of a student's utterance, minus the error". Extensive recast is provided on a wide range of linguistic forms (Ellis, 2001). According to Brown (2014), extensive recasts occur when the feedback is not limited to a single target structure and learners receive feedback on many structures that occur incidentally during the instruction. However, intensive recast is provided on a single, pre-selected linguistic structure (Nassaji, 2017).Moreover, some scholars believe extensive recast is highly time-consuming and ineffective since students are only sometimes ready to participate (Hyland & Hyland, 2006).

Second/foreign language teachers and researchers who have worked on corrective feedback have long observed that corrective feedback is an essential strategy for developing writing skills, and providing it by language teachers assists learners in learning the appropriate linguistic forms. Consequently, finding out the best techniques for corrective feedback to enhance student's writing performance has always been a primary concern for teachers.

It can be claimed that the "most highly valued and desired classroom activities" is the teacher feedback which is considered as the most appropriate error feedback (Kim & Mathes, 2001, p. 56). In addition, Selinker (1992) confirms that errors are considered an indispensable language-learning process and must be performed to assist learners in producing the L2 more accurately. So, students tend not only to receive feedback from their teachers but also a preference toward certain types of teacher feedback (Kim & Mathes, 2001). The goal of providing feedback is simple: To help the learners to notice the problem in their production and correct it after following the feedback. It should be mentioned that scholarly articles in this field reflect the impact of different kinds of feedback on learners' accuracy in L2 writing.

The study of different types of teacher feedback has been the focus of many scholarly studies for many years. This importance can be attributed to the fact that many scholars have attempted to deal with the link between teacher feedback and L2 learning (Rezaei et al., 2011). In the midst of all these scholarly attempts, the study of influential types of teacher feedback has received more attention. Early studies cast doubt on its ultimate utility and efficacy (e.g., Kim, 2004), but recent studies point out its fruitful results in the classroom context (Caroll & Swain, 1993; Long et al., 1998).

As was mentioned before, in reviewing the literature, the findings of studies regarding the role of error correction, which is one type of teacher feedback, could be more varied and precise. Some studies, such as Truscott (1996) and Kepner (1991), found no significant impact on L2 writing, while some studies pointed to the difference it can make in students' L2 writing (Chandler, 2003). Here, another look at teacher feedback will be taken, and the discussion on different types of teacher feedback will be expanded.

Chun et al. (1982) carried out a study on corrective feedback and claimed that teacher feedback rarely occurred in the language classroom, and in most cases, it was employed carelessly and was not noticed by the learners. In the same line, Sheppard (1992) applied two different kinds of feedback to an essay writing class. The learners consisted of two groups: Group A received coded error feedback, focusing on the error's type and location. Group B received feedback on the content of their writing as well as the clarification requests, which was a written feedback offered in the margin of their papers. The results depicted no noticeable difference in the revised papers of the two groups' writing.

Similarly, Semke (1984) carried out a study about narrative writing among 141 German students for ten weeks and claimed no significant difference in the case of providing feedback in classes. Truscott (1996) referred to this study and claimed that if error correction were fruitful, it would have significantly improved students' narrative writing accuracy. Nevertheless, the gentle point neglected by Truscott and rightfully mentioned by Arege (2010) is that both studies did not have any control groups, and the amassed results can be attributed to this negligence.

Bitchener et al. (2005), in a research on corrective feedback, dealt with three groups differentiating on the hours learners attended the class. The full-time class was provided with direct written corrective feedback accompanying teacher's explicit correction. The 10-hour class received only direct written corrective feedback. In contrast, the four-hour class was provided with no corrective feedback but had feedback based on the quality of their writing. The results revealed that the group that was provided with direct feedback outperformed significantly in terms of accuracy. This study overcame the discrepancies of the previous studies by entailing a control group and having treatments with appropriate lengths.

All the studies above suggested that error feedback, no matter which type was provided, had no or at least lesser effect on improving students' L2 writing accuracy. The following studies, however, showed that teacher feedback can yield more fruitful results.

Fathman and Whally (1990) conducted a study in which 72 ESL students at the Intermediate level took part in a writing class and were asked to write an essay using a picture sequence. The allocated time was 30 minutes. The participants in four groups were provided with four different types of treatment: (1) They received no feedback, (2) They received feedback on content, (3) The feedback was on grammar and content, and (4) The feedback included only grammar. Learners in group 3 had the privilege of receiving feedback through underlined errors and written comments. The findings indicated that all students improved in grammatical accuracy, either students who had received grammar feedback only or those who had received grammar and content feedback. Unfortunately, errors were not classified and were marked comprehensively. It must be clear whether improvements were made on any specific errors.

Furthermore, Ashwell (2000) conducted a long-term study that lasted nearly one year. This study considered four types of feedback: (1) form-focused feedback after content feedback, (2) content feedback after form-focused feedback, (3) form and content feedback simultaneously, and (4) no feedback. All the learners were asked to write a draft twice (D1 and D2) before coming up with the final version (D3). The form-focused feedback was provided with underlining or circling lexical or grammatical errors. Content feedback included organization, paragraphing, relevance and cohesion. The findings depicted that all three aforementioned groups improved significantly in their writing accuracy, but the group that received simultaneous form-content feedback outperformed the other groups.

Also, Hong (2004) examined the effect of coded versus un-coded feedback. The first group was provided with feedback in which errors were underlined, while the second group received both coded and underlined feedback for their errors. Syntactic, lexical and mechanical errors were focused on. The improvement of accuracy in the revised drafts of both groups was manifested, but the coded feedback group outperformed the other group.

In addition, Liu (2008) investigated the impact of error feedback on L2 writing. The study was an attempt to examine learners' abilities to self-correct their writings considering two feedback conditions: (1) direct correction with the help of the teacher through corrective feedback and (2) indirect correction through just designating the error by the teacher without correcting it. Consequently, the results depicted that both kinds of feedback assisted learners in revising their drafts. Despite the fact that direct feedback decreased the rate of learners' errors, it did not increase learners' accuracy in another paper. Therefore, it was claimed that offering corrective feedback was not sufficient to improve learners' writing accuracy.

Arege (2010) targeted the role of different kinds of correction feedback on language learners' writing. Fluency, successful correction and accuracy development were considered. The findings showed no improvement in fluency. However, for accuracy development, a controversial result was reached. Also, learners had a positive attitude toward receiving error correction feedback.

Sarandi (2015) explored the third person –S in grammatical accuracy and claimed that the group that provided the corrective recast performed much better than the group that received no feedback.

Also, a study by Kamiya (2015) showed that extensive and intensive recasts were highly significant in developing learners' explicit knowledge.

Finally, in a study, Nassaji (2017) found that extensive recast had a more critical role in improving writing compared to intensive recast. Thus, to shed more light on this, the current study aimed to investigate the role of recasts in both classroom settings to explore the effect of intensive vs. extensive recasts on EFL learners' grammatical accuracy in writing. Thus, the following research questions were posed:

1. Does using extensive recast through grammar-focused task have any statistically significant effect on Iranian intermediate EFL learners' grammatical accuracy in writing?

2. Does using intensive recast through grammar-focused task have any statistically significant effect on Iranian intermediate EFL learners' grammatical accuracy in writing?

3. There was not any statistically significant difference between extensive versus intensive recast on Iranian intermediate EFL learners' grammatical accuracy in writing?

2. Methodology

In order to explore the comparative effects of intensive versus extensive recasts through grammar-focused tasks on Iranian intermediate EFL learners' grammatical accuracy in writing, this study deployed a pre-test post-test control group design.

The schematic representation of the design is depicted as follows:

EG (intensive)	T1	X1	T2
EG (Extensive)	T1	X2	T2
CG	T1	---	T2

X stands for treatment; EG represents the experimental group, and T1 and T2 stand for pre and post-tests.

Regarding participants, 100 Iranian EFL learners were selected in this study based on their willingness to participate in all the study phases. They were first pre-tested through the Oxford Placement Test (OPT). OPT aimed to guarantee the students' homogeneity and neutralize the effect of other factors that could change the study's outcome. Moreover, pre-testing was performed to ensure all subjects had the same language proficiency level. The population in this study contained both male and female students. In terms of age, the subjects ranged from 19 to 24. The due learner participants were categorized as two experimental groups (i.e., intensive versus extensive) and a control group. They were intermediate language learners studying English at the Mehr Institute.

APA ethical guidelines were all taken into consideration to select subjects. As a result, both confidentiality and informed consent were included. All the participants took part in the study voluntarily, and their identity and performance were kept confidential.

In terms of materials applied to this study, the OPT, one of the most famous and standard tests, was utilized to specify English language learners' level of L2 proficiency. The sample of the OPT employed in this study included two sections: Section A: 40 items, and Section B: 20 items. Section A contained 25 MC pictorial items, 15 questions in MC cloze text format, and 20 grammatical MC items. Section B contained ten MC cloze text items and ten MC vocabulary items. The whole test lasted 50 minutes.

Furthermore, the following books were used for the instruction purposes in the present study: (1) Paragraph Development, by Arnaudet and Barrett (1990); (2) Academic Writing from Paragraph to Essay, by Zemach and Rumisek (2005).

In order to gain the purpose of the research, the following procedure was carried out: I) sampling, II) pre-test, III) treatment, and finally IV) post-test. Before commencing the instruction, 100 male and female EFL learners (i.e., as the study population) who matched the selection criteria were recruited. The selected participants were intermediate language learners based on the evaluation made at the Mehr Institute. However, to guarantee the homogeneity of the participants, the OPT was given to a population of 100 learners. After scoring the test, the data

was analyzed, and 60 learners (i.e., as the study sample) whose scores were one standard deviation above and one below the mean were chosen and assigned into two experimental groups (i.e., extensive and intensive) and a control group equally (n=20).

Following the pre-test, the learner participants in experimental and control groups received the intended treatments and placebo, respectively. Before the instruction, the teacher also provided the participants with the necessary information about what they were required to do. For the experimental groups, in every session, the teacher chose a particular type of genre (i.e. example, cause-and-effect analysis, classification, comparison vs. contrast and argumentative essays), discussed the genre by modelling and elaborating the building blocks of the genre, and the communicative purpose which it served. Next, in the joint construction stage, the students were asked to reconstruct, revise and paraphrase the text in their own words. Then, having prior understanding and knowledge of the structure of the genre, the students were asked to write a paragraph. The teacher offered either intensive feedback (i.e., on a single, pre-selected linguistic structure) or extensive feedback (i.e., on a wide range of linguistic forms). Finally, the participants in experimental groups were provided with error grammar-focused tasks in which they were required to revise the erroneous sentences. Furthermore, they could consult their peers as well as their teacher. These tasks were deployed to enhance students' grammatical accuracy. The whole treatment for both experimental groups lasted for ten sessions.

Moreover, placebo was provided for the control group. Having delineated the structure of the genre, the learner participants were asked to write a paragraph. Next, their writings were partially commented on in their papers. Finally, the writing post-test was given to them to deal with the effect of the two types of treatment.

In addition, for assessing the participants' writings, Jacobs et al. (1981) suggested that researchers should obtain at least two writing samples from each participant in order to have a reliable representative of students' performance. To do so, two tasks were explicitly designed to fulfil the purpose of the study. The topics were assigned in a way that elicited genuine engagement by placing writers in authentic situations. Before implementing the treatment, a writing pre-test was performed to obtain the initial differences among the test takers. The pre-test was an in-class writing task in which the participants were supposed to write a paragraph within an hour. To reach this, the learners were provided with three topics, and they were asked to choose one of the topics and to write a paragraph with at least 150 words. To select the writing topics, some factors were taken into consideration, such as moderate difficulty, not depending on learners' background knowledge, and including everyday issues. The topics were chosen based on participants' lives and society to stimulate participants to write enthusiastically. Afterwards, two qualified raters scored the writing samples in accordance with the writing scoring rubric following Wang and Liao (2008). This rubric includes a comprehensive framework with an emphasis on the main factors in the scoring process involving organization, focus, support convention and vocabulary. The Pearson correlation coefficient was further estimated to ensure a suitable inter-rater reliability level. The reliability was 0.78, which seemed to be an acceptable measure of inter-rater reliability. After the treatment, a writing post-test was administered to check the effect of the two types of treatment on the groups. Like the pre-test, the writing post-test was a one-hour, in-class task paragraph writing. Similarly, the learner participants were supposed to write a paragraph with a minimum of 150 words, choosing among the provided topics. To select the writing topics, the same aforementioned guidelines were taken into account.

To control the subjectivity of the data collection, several forethoughts were considered. First, two raters rated the writing papers to ensure the reliability of the scoring. The raters followed a taxonomy of the grammatical errors, through which they could recognize and measure the number of errors each participant committed in the writing. Secondly, the raters were trained to learn about the grammatical errors in the learners' writing by using the coding list of errors.

3. Results and Discussion

The descriptive statistics of the learner participants' scores in both pre and post-test, including

experimental and control groups, are depicted in Table 1.

Table1. The Descriptive Statistics for the Participants' Pre-Test and Post-Test Scores in the Groups

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Groups	60	1.00	3.00	2.0000	.82339	.000	.309	-1.526	.608
Pre-Groups	60	15.00	21.00	17.5833	1.30243	.257	.309	-.163	.608
Post-Groups	60	17.00	25.00	20.9783	2.03439	-.027	.309	-.532	.608
Pre-extensive	20	15.75	21.00	17.7500	1.59151	.522	.512	-.826	.992
Pre-intensive	20	16.00	19.00	17.6375	.85638	-.201	.512	-.092	.992
Pre-Control	20	15.00	20.00	17.3625	1.38477	-.078	.512	-.650	.992
Post-extensive	20	19.00	25.00	22.6500	1.66307	-.521	.512	-.416	.992
Post-intensive	20	18.00	24.00	20.8125	1.40693	-.024	.512	.308	.992
Post-Control	20	17.00	22.00	19.4725	1.65811	-.064	.512	-1.204	.992
Valid N (listwise)	20								

Table 1 reveals the descriptive statistics of the learner participants' scores in both pre and post-test, including experimental and control groups. Following Table 1, the mean scores of the extensive, intensive, and control groups in the pre-test were 17.75, 17.63, and 17.36 which raised to 22.65, 20.81, and19.47 in the post-test in post-test, respectively.

In addition, Skewness and Kurtosis values for both the pre-test and post-test were within the ranges of +/- 2, which proved the normality of the data. This normality was also traced in the normal distribution curves and box plots as well.

To check the normality assumptions for running ANCOVA, the normality of distribution of test scores, homogeneity of regression slopes, linearity of slope of regression lines, and homogeneity of error variances were calculated. To do so, first, the normality of distribution of test scores was checked through the Kolmogorov-Smirnov and Shapiro-Wilk's tests. Table 2 depicts the results of these tests.

Table 2. The Kolmogorov-Smirnov Test for Normality of the Distribution of the Test Scores

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-Groups	.181	20	.084	.918	20	.089
Post-Groups	.192	20	.053	.933	20	.176
Pre-extensive	.181	20	.084	.918	20	.089
Pre-intensive	.186	20	.068	.914	20	.076
Pre-Control	.177	20	.099	.948	20	.332
Post-extensive	.192	20	.053	.933	20	.176
Post-intensive	.153	20	.200[*]	.955	20	.443
Post-Control	.129	20	.200[*]	.934	20	.187

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

a. Lilliefors Significance Correction

As Table 2 shows, the Kolmogrov-Smirnov and the Shapiro-Wilk values were not significant. Then, this was resulted in observing the normality assumption of the test (P>.05). Next, the homogeneity of regression slopes was dealt with by measuring the interaction between

groups and the covariate (pre-test).

Table 3. Test of between Subjects Effect
Tests of Between-Subjects Effects
Dependent Variable: Post Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	176.333[a]	5	35.267	28.066	.000
Intercept	5.421	1	5.421	4.314	.043
Groups	2.744	2	1.372	1.092	.343
Pre.Groups	63.988	1	63.988	50.924	.000
Groups * Pre.Groups	1.270	2	.635	.506	.606
Error	67.853	54	1.257		
Total	26649.615	60			
Corrected Total	244.187	59			

a. R Squared = .722 (Adjusted R Squared = .696)

As Table 3 depicts, the obtained value [F (2, 54) = .506, Sig =.606)] was larger than P< .05, which revealed that the interaction between the covariate and independent variable was not statistically significant and the assumption of the homogeneity of the slope of regression lines was held. Second, the linearity of the slope of regression lines was checked through a scatterplot. As Figure 9 presents, there was a linear relationship between the pre and the post-test scores, which indicated that the linearity assumption of regression lines was also met.
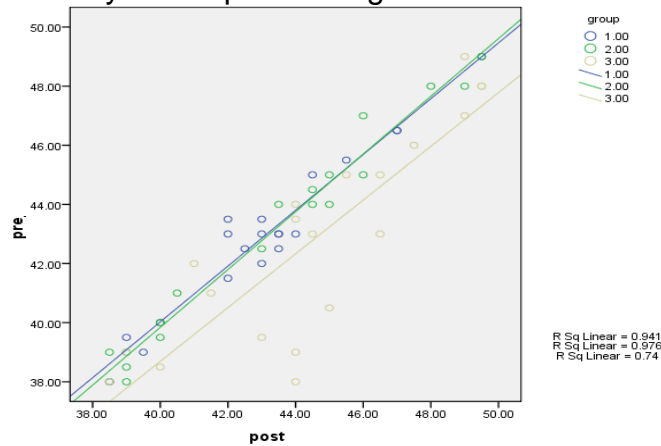

Figure 1. Linear relationship among regression lines

After checking the normality assumptions, the Levene's statistic was deployed to learn about the homogeneity of error variances. Levene's statistic deals with the assumption that the error variance is equal for all the groups.

Table 4. Levene's Test of Equality of Error Variances[a]
Dependent Variable: Post Groups

F	df1	df2	Sig.
.216	2	57	.807

Tests the null hypothesis that the error variance of the
dependent variable is equal across groups.
a. Design: Intercept + Pre Groups + Groups

As displayed in Table 4 above, the results of Levene's test were not statistically significant for the post-test (F (2, 57) = .216, Sig = .807). Considering the obtained results, it was revealed that there was not a statistically significant difference among the groups' variances. Having checked the normality assumptions, an analysis of covariance (ANCOVA) was run to deal with the research hypotheses and remove the effect of the pre-test on learner participants' performance in the post-test. Table 5 reflects the results.

Table 5. Tests of Between-Subjects Effects for the Analysis of Covariance (ANCOVA)

Dependent Variable: Post.Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	175.063ᵃ	3	58.354	47.275	.000	.717
Intercept	10.476	1	10.476	8.487	.005	.132
Pre.Gropus	73.273	1	73.273	59.361	.000	.515
Groups	81.059	2	40.530	32.835	.000	.540
Error	69.124	56	1.234			
Total	13705.215	60				
Corrected Total	244.187	59				

a. R Squared = .717 (Adjusted R Squared = .702)

In Table 5, the Group row indicates the significant effect of the treatment on the dependent variable. Having the pre-test scores adjusted, the results revealed a significant effect of the groups (F (2, 56) = 32.83, P= 0.00, partial η² = .540)]. As the P-value was smaller than 0.05, it could be claimed that there were statistically significant differences between the post-test and the pre-test's mean scores. Next, the marginal means were estimated. Although the F-value of 32.83 depicted a statistically significant difference between the mean scores of all the groups on the post-test, the post-hoc comparison tests were utilized to compare the groups two by two to check the validity of the null hypotheses posed in this study. Tables 6 and 7 reflect the results of the analyses.

Table 6. Group Estimates

Dependent Variable: Post Groups

Groups	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Extensive	22.506ᵃ	.249	22.007	23.005
Intensive	20.766ᵃ	.249	20.268	21.264
Control	19.663ᵃ	.250	19.163	20.163

a. Covariates appearing in the model are evaluated at the following values: Pre Gropus = 17.5833.

Table 6 indicates that the estimated marginal mean score for the extensive recast group (22.50) was higher than those obtained by the intensive recast group (20.76) and the control group (19.66).

Table 7. Pairwise Comparisons for the Groups' Performance

Pairwise Comparisons

Dependent Variable: Post Groups

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.ᵇ	95% Confidence Interval for Differenceᵇ	
					Lower Bound	Upper Bound
Extensive	Intensive	1.740*	.352	.000	.873	2.608
	Control	2.843*	.354	.000	1.970	3.717
Intensive	Extensive	-1.740*	.352	.000	-2.608	-.873
	Control	1.103*	.353	.008	.232	1.973
Control	Extensive	-2.843*	.354	.000	-3.717	-1.970
	Intensive	-1.103*	.353	.008	-1.973	-.232

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

According to the results revealed in Tables 6 and 7, the following can be concluded:
There was a statistically significant difference between the results obtained from the extensive group (M=22.50) and the control group (M= 19.66), (MD = 2.84, P < .05). Therefore, the first null hypothesis, "Using extensive recast through grammar-focused task does not have any

statistically significant effect on Iranian intermediate EFL learners' grammatical accuracy in writing" was rejected. This implied that the extensive recast group performed better than the control group on the post-test.

Moreover, there was a statistically significant difference between the mean scores of the intensive recast group (M = 20.76) and the control group (M = 19.66) (MD = 1.10, P < .05). Accordingly, the second null hypothesis as "Using intensive recast through a grammar-focused task does not have any statistically significant effect on Iranian intermediate EFL learners' grammatical accuracy in writing" was also rejected. This implied that the intensive recast group also had a better performance compared to the control group on the post-test.

Additionally, there was a statistically significant difference between the mean scores of the extensive recast group (M = 22.50) and the intensive recast group (M = 20.76), (MD = 1.74, P > .05). Therefore, the third null-hypothesis that "There was not any statistically significant difference between intensive versus extensive recast on Iranian intermediate EFL learners' grammatical accuracy in writing" was also rejected implying that extensive recast could affect EFL learners' writing performance more than intensive recast.

Concerning the first research hypothesis (i.e., using intensive recast through grammar-focused tasks does not have any statistically significant effect on Iranian intermediate EFL learners' grammatical accuracy in writing), the present study's findings revealed that the intensive recast group outperformed significantly compared to the control group.

Moreover, regarding the second research hypothesis (Using extensive recast through grammar-focused tasks does not have any statistically significant effect on Iranian intermediate EFL learners' grammatical accuracy in writing), it was revealed that the extensive recast group performed significantly better than the control group in writing post-test.

Consequently, this study's findings align with some previous studies (e.g., Sukur & Demircan, 2020). There are, however, some discrepancies. For example, Ellis et al. (2008) found no significant difference between intensive and extensive corrective feedback, claiming that both feedback types were much better than no correction in the narrative writing post-test. Sheen et al. (2009) also confirmed that the focused corrective feedback group significantly outperformed the control group in the narrative writing post-test, whereas the unfocused corrective feedback group did not show any outperformance. Moreover, Sarandi (2015) focused on the third person and claimed that the group receiving corrective recast performed much better than the no-feedback group on the post-test oral production. In addition, considering Kamiya's (2015) study, it was revealed that both intensive and extensive recasts had significant roles in improving explicit knowledge. On the other hand, Nassaji (2017), in a study, concluded that extensive recast was more beneficial for the accurate use of articles and grammaticality judgment tasks compared to intensive recast.

4. Conclusion

Grammatical accuracy has been a controversial issue in L2 writing. A number of questions have been asked by researchers studying L2 writing over the last decades. Also, the role of corrective feedback on the acquisition of grammatical accuracy has always been a controversial issue in the last couple of decades. Thus, the present study explored the impact of intensive versus extensive recasts through grammar-focused tasks on Iranian EFL learners' grammatical accuracy in writing.

The findings revealed that using both extensive and intensive recasts through grammar focused task had statistically significant effect on Iranian intermediate EFL learners' grammatical accuracy in writing. However, extensive recast has more highlighted role in improving EFL learners' writing performance compared to intensive recast.

Consequently, in the classroom settings, the English teachers can provide their students with intensive recasts through grammar-focused tasks since intensive recasts may help the learners notice the target structure more easily and focus on how and where that structure should be used. This can be beneficial especially for the learners who do not have much background knowledge about the target structure.

In addition, material developers are suggested paying attention to the recurring types of grammatical errors across different types of paragraphs. They can also devote supplementary parts and activities in the books for introducing the grammar-focused tasks to help learners produce the target grammatical structures or revise the common errors in students' performance through extensive recasts.

Furthermore, teacher educators can make teachers aware of the common types of grammatical errors in learners' L2 writing or inaccuracies of students' performance across different types of paragraphs.

Moreover, the application of intensive vs. extensive recasts through grammar-focused tasks can be investigated in other skills. For example, the impact of different kinds of corrective feedback can be investigated in speaking. To add, future research can be applied to compare the effects of extensive vs. intensive recasts at different levels in terms of their readiness to obtain the target structure.

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An investigation into three different techniques to raise critical cultural awareness

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Abstract

This study attempted to explore to what extent each of the three techniques of culture narratives, culture capsules and culture training activities significantly affect the critical cultural awareness of Iranian EFL learners by comparing their means from pretest to post-test questionnaire after ten-session treatment. Furthermore, it investigated whether there were any differences in the effectiveness of these techniques. Regarding the participants, the testing group was 154 undergraduate English language translation students, including both male and female students, forming three experimental groups. This investigation used the quasi-experimental pretest-posttest design. The sampling method was convenience sampling. The homogeneity test and a pre-post critical cultural awareness questionnaire were used to collect data. The collected data were analyzed through Repeated Measures ANOVA and Simple Effect Analysis. Based on the obtained results, there were significant differences between the pretest and the post-test, which means that by applying the techniques mentioned above, the critical cultural awareness of learners increased. Also, there were significant differences between the three groups' overall means on pre-post critical cultural awareness questionnaires. Considering the three groups, culture narratives, culture capsule and culture training activities, the former outperforms the others. Furthermore, between culture training activities and culture capsule groups, the culture training activities group performed better than the culture capsule group.

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1. Introduction

In 1971, Lado defined *culture* as systematic and shared behaviour patterns with a specific meaning. Culture in language learning and teaching is often described pragmatically as a culture associated with learning a language. Cultural learning should be seen only partially as a set of inactive, factual information but as a dynamic and continuing process. Cultural learning has cognitive, behavioural and affective dimensions. Moreover, they differ according to "gender, age, ethnicity, race, education, power, income, religion, region, and other social and geographic variables; and that cultural patterns can change over time" (Byram & Grundy, 2002, p. 193).

Nunan and Choi (2010) comment that culture is not one worldview shared by all the members of a national speech community; it is "multifarious, changing, and, more often than not, conflictual" (p. 2). Furthermore, culture has always been a part of language teaching. Over the past few decades, there has been a growing concern about integrating culture and language teaching (Kramsch, 1995). Concurrently, the global increase of the English language has given rise to the importance of the topic.

In addition, critical cultural awareness is defined as "an ability to evaluate, critically and based on explicit criteria, perspectives, practices and products in one's own and other cultures and countries" (Byram, 1997, p. 63). Critical cultural awareness appears more than cultural awareness when the language's nature, depth and sensitivity as knowledge are considered. According to Byram (1997), when foreign language learners' acquisition is improved by critical cultural awareness (CCA), the students have the capability and skills to join the target societies as they enjoy a profound knowledge of cultural awareness.

Critical cultural awareness is thoroughly connected to improving critical thinking skills that let language users judge the experiences and behaviors they face (Byram, 2009). Moreover, he emphasizes that critical thinking should focus on one's culture and other cultures and that critical thinking results from a comparative concurrence of the specific aspects of different cultures. In other words, advancing people's cultural awareness leads them to more critical thinking (Chakir, 2006).

Equally important, it has questioned principal views in applied linguistics regarding the relationships between languages and cultures. Global English use challenges the predetermined relationship between a language and culture and previous debates on foreign language teaching and the importance of cultural awareness in language learning, as there are complex and dynamic relations between languages and cultures.

Furthermore, because of growing internationalization, learning a foreign or second language is not merely considered an academic study but concentrates more on learning how to communicate. Real communication in the real world occurs in a context, and culture is an inseparable part of context; as a result, communication cannot happen in a culture-free context (Kramsch, 1993).

For example, in business, the trend toward globalization has led to the reality that many organizations have to communicate and do business with representatives from other companies with different languages and cultures so that challenges may arise. These businesses supposed that it is crucial to pay attention to raising cultural awareness in the process of doing their job to avoid possible cultural misunderstandings (Smirnova, 2023).

Moreover, cultural awareness training is more comprehensive than language education. For example, it is common for health professionals in various sectors to expand cross-cultural clinical meets and patient consequences with the wider expectancy of decreasing health inequalities (Shepherd, 2019).

In general, many research studies prove that integrating and teaching learning strategies can be beneficial; for example, the results of the study conducted by Rasouli et al. (2020) showed that applying teaching learning strategies in adult learning programs is successful. They proved that using these strategies could increase competence. Therefore, instructors can include teaching culture and critical culture in teaching learning-strategy programs.

Likewise, the learner's native culture and the target culture or the culture in which meaning is communicated affect the potential interpretation of meanings. This context is not only a first or target language culture; both concurrently exist and can be instantaneously engaged. Learning to communicate through a second language involves developing an awareness of how culture interrelates with language whenever used (Liddicoat et al., as cited in Scarino & Liddicoat, 2009). Moreover, Vourdanou (2017) reported that presenting cultural components in English language learning classrooms leads to emerging questions by the students about their own cultures and manners and makes them sympathetic to cultural dissimilarities.

As language-teaching specialists encounter the challenge of integrating culture in their instructional practice nowadays, this study might help educators explore their cultural beliefs and develop skills to create opportunities to create cultural materials, techniques and activities in the context of the second language acquisition to increase critical cultural awareness.

This study examined three different techniques to improve critical cultural awareness: culture narratives, culture capsules, and culture training activities. It analyzed their effect and possible differences to enhance critical cultural awareness. These techniques can be easily applied to classrooms and included in materials and language syllabi.

Considering the above-mentioned techniques, in the first place, there are culture narratives. In the past three years, narratives and, especially, stories people tell about their lives have become the focus of the interdisciplinary field of narrative study, which proposes narrative as the dominant tool by which people offer their lives sense. Consequently, narratives have gained increasing importance outside literature and folklore, becoming a rich data source in several areas of linguistics, particularly L1 acquisition, linguistic anthropology, sociolinguistics, and language education. Moreover, a narrative study has also received increased attention in TESOL and second language acquisition (Pavlenko, 2002).

On the same line, Clark and Rossiter (2008) hold the view that using narratives is developing. In the field of education, and more specifically, adult education, it has begun recently. Adult educators always use stories to teach. What is more recent is the conceiving of how we learn through narrative. Human beings tell stories, which serve a function, namely, to "make meaning of our experience" (p. 62). This knowledge has been established by several theorists who claim "meaning-making is a narrative process" (p. 63). Besides, the narrative is how we build our sense of self and our identity: "Personal stories are not merely a way of telling someone (or oneself) about one's life; they are how identities may be fashioned" (p. 64).

Also, Johnson and Golombe (2011) maintain that from a Vygotskian socio-cultural theoretical perspective, the transformative power of narrative lies in its ability to awaken cognitive processes that promote development. In fact, the products of narrative activities are working as a tool for knowledge building. Fivush (2010) also states that cultural narratives can define lives and selves.

Moreover, narratives in a classroom environment can be in the form of plays, poems, stories, and the like. These narratives have the potential to contribute significantly to the language-learning field. Narrative as a learning tool is relatively common in language education. They can raise student learning. For example, reading and writing autobiographic narratives often inspire learners to value their knowledge, which is essential and can empower them (Nelson, 2011).

Also, Pauly (2003) categorizes art images as a culture narrative or visual culture. Students can negotiate meanings by connecting images with culture narratives that help them understand cultural knowledge. Investigations also demonstrate that telling life stories in a new second language may be an excellent tool of empowerment that makes it possible to tell new selves and needs previously considered untellable. Recent research strongly determines that narratives are not merely individual productions but also are strongly formed by "social, cultural, and historical conventions as well as by the relationship between the storyteller and the interlocutor (Pavlenko, 2002, p. 215).

Likewise, people have started to talk and write about their experiences in recent years. These memoirs can be considered culture narratives that can be used as a tool in the second language acquisition environment. For example, Taniguchi (2010), in his article, told his story of the experiences of an Asian as a minority in English-speaking societies.

In this study, the researcher used published narratives from groups of interests.
In the second place, there were culture capsules. Taylor and Sorenson (1961) defined a culture capsule as a short, 5 to 10-minute activity that presents one aspect of culture and focuses on minimal variations between the learners' native culture and the second culture. Culture capsules are one of the greatest and most famous techniques for teaching culture. A culture capsule is a short description or depiction of one or some chosen features of the second language culture, such as meals, wedding customs and greetings. An instructor can also incorporate and compare this new information with the learners' first language culture.

Besides, Knop (1976) mentioned that using culture capsules has several advantages, including accomplishing short-range goals. They can be presented once at a time. They are tangible learning experiences that learners mostly like and enjoy. Besides, they help learners develop a general perception and understand cultural differences. Culture capsules can prevent culture shock when learners face unfamiliar experiences. Moreover, they can decrease stereotypes and bias, and finally, as they are short, they can be included in daily classroom activities.   In this research, culture capsules were PowerPoint culture facts presented in culture capsule group classes once at a time; they included culture tips like greeting, the importance of family, pets, superstitions, body language, and the like. The instructor directly compared and contrasted these tips in different cultures, including the target and first language cultures.

In the third place, there are culture training activities. These activities are an educative process that promotes intercultural learning by acquiring behavioural, cognitive, and affective competencies required for effective communication across different cultures (Morris & Robie, 2001). Furthermore, culture training activities focus on mutually exchanging ideas and cultural norms and developing heartfelt relationships. In an intercultural environment, nobody is left unchanged as everyone learns from one another and improves together. Moreover, they attempt to promote intercultural education in its three aspects: knowledge, skills and attitude. Culture training activities include different techniques such as readings, films, simulations, games, and culture grams that language teachers can use to develop cultural knowledge and help the acculturation process. At the same time, it can promote communication in a socio-cultural setting (Chastain, 1988). In this investigation, in culture training activities group, PowerPoint-based lectures, writing summaries, games, and role-plays were used.

Regarding games, neuroscientists believe that "when the fun stops, learning often stops too"(Willis, 2007, p. 2). Moreover, the research in second language acquisition (SLA) demonstrates the potential power and effectiveness of games for language and culture learning in vocabulary, pragmatics, literacy, and multilingual engagement (Reinhardt & Thorne, 2020). Therefore, the connection between games and language learning is a productive ground for pedagogical purposes. Since the beginning, the game has been central to human culture (Huizinga, as cited in Dubreil, 2020). He argues that games may even precede culture. Therefore, investigating a specific culture through its games could provide valuable insights into gaining intercultural competence. When people started to create civilizations and societies, the plays they invented and developed shaped their culture and played a prominent role in creating the social framework. Games occupy a privileged space in human societies and are used to interpret the world around us.

According to Liu and Ding (2009), role-play is an effective technique to change the teaching and learning conditions, provoking students' interests and curiosities. Applying role-play in classrooms can make language learning distinguished, and much research focuses on applying it successfully and taking the most advantage of it in language learning classes. Liu and Ding (2009) argue that there are four critical factors for its success: "the topic chosen should be real and relevant; the teachers need 'feed-in' the appropriate language; correct errors in a proper

way; some of teachers role are facilitator, spectator or participant" (p. 140). Including role-play in classroom activities may add diversity, change the learning pace, and offer language production opportunities.

In line with the research conducted in this regard so far, the present study involves Iranian English translation university students, in which the learners' critical cultural awareness is challenged and developed by applying different techniques, using culture narratives, culture capsules, and culture training activities.

Considering the importance of the relationship between language learning and culture, numerous studies have been carried out, and various techniques have been proposed (e.g., Allen, 2004; Baker, 2011; Byram, 2012; Byram & Kramsch, 2008; Holme, 2003; Kramsch, 1995; Littrell & Salas, 2005; Nelson, 2011; Pavlenko, 2002; Schulz, 2007 &Tomlinson, 2000). However, the study conducted by Birjandi and Meshkat (2003) showed that the implemented cultural values in books do not influence the learners and do not enter their cultural systems. Books alone do not have the power to offer and internalize the target culture. So, we must use innovative techniques to teach culture and raise cultural awareness. For example, the researcher used three techniques in this study to compare their probable effects: culture narratives, culture capsules and culture training activities.

Critical cultural awareness is regarded as the students' need in the current globalized world, and it is a cornerstone of many research studies like Chwo's (2023) study.

This study examined new cultural awareness-focused English course materials (SPROUT project). He supported using these materials for class and self/home study and considered teaching cultural awareness a successful practice.

Moreover, other studies explored methods to enhance critical cultural awareness. For example, the findings of the survey conducted by Eren (2021) suggest that telecollaboration significantly increased pre-service teachers' critical cultural awareness and decreased biases in multicultural learning settings.

Another study by Öztürk and Gonca (2022) investigated critical cultural awareness development in a transnational virtual exchange project. The teacher candidates from Turkey attended a virtual exchange project via   gatherings and interacted with other teachers from Germany and other countries. They collaboratively attempted to solve assigned tasks and challenges to develop the final solution. At the end of the course, the qualitative analysis revealed that the teachers' critical cultural awareness was significantly developed.

However, the studies that have been conducted so far need to cover the comparison between the different techniques. Moreover, this investigation is almost exceptional in the context of Iran. What is accustomed in Iran is either disregarding the culture or offering it through very limited culture capsules or similar traditional approaches. Innovative methods are often viewed with doubt. Details of the issue are often ignored. Moreover, the available studies and techniques still need to provide a clear-cut method for instructors to integrate culture into their programs.

As mentioned earlier, there are few quantitative studies on this issue in Iran so that the present research may bring insight into second language acquisition. It may foster cultural awareness more conscientiously (Birjandi & Meshkat, 2003). Furthermore, the present research may enhance teachers' critical cultural awareness by providing practical tools to deal with cultural problems and raise critical cultural awareness in their classrooms.

On the whole, reviewing the related literature on the significance of culture in language learning reveals that although many educational studies have emphasized the powerful influences of critical cultural understanding on language learning, only a few have focused on practical aspects of foreign language learning. Based on the indicated shortcomings, this study aims to provide necessary information for language teachers and learners to construct a functional and critical awareness of the target language and its culture to increase critical cultural awareness. Moreover, the present study attempts to compare the possible effects of using three techniques: culture narratives, culture capsules and culture training activities like PowerPoint-based lectures, written assignments, role-play, games, and open-ended questions.

If the target language is taught without considering the culture, meaningless expressions or expressions with the wrong meaning will be taught. Students who receive cultural education can deal with foreign concepts more effortlessly (Aajami & Nasser, 2019). Ultimately, the following major and minor research questions were recognized:

Major research question: Does using different techniques to develop critical cultural awareness significantly affect raising critical cultural awareness of Iranian EFL learners?

Minor research question 1: Does using culture capsules significantly affect the development of Iranian EFL learners' critical cultural awareness?

Minor research question 2: Does using culture narratives significantly affect the development of Iranian EFL learners' critical cultural awareness?

Minor research question 3: Does using culture training activities significantly affect the development of Iranian EFL learners' cultural awareness?

Minor research question 4: Is there any statistically significant difference between culture capsules, culture narratives and culture training activities on the development of Iranian EFL learners' cultural awareness?

Though this study did not claim to offer ultimate responses to all questions and concerns, investigating three potentially helpful techniques could be beneficial to incorporating culture into the process of second or foreign language learning.

2. Methodology

This study analyzed how instructors could improve critical cultural awareness by applying three techniques. More specifically, this study was undertaken to achieve the following two objectives. First, it explored to what extent the three techniques of culture narratives, culture capsules and culture training activities improved their means from the pretest to the post-test. Second, it investigated the difference between the three techniques of culture narratives, culture capsules, and culture training activities on improving Iranian EFL learners' critical cultural awareness. This investigation used the quasi-experimental pretest-post-test design. The collected data were analyzed through Repeated Measures ANOVA and Simple Effect Analysis.

Additionally, the participant learners were 154 B.A. English translation students were studying at Islamic Azad University, Shahr-e-Qods and Islamshahr Branches. They attended Advanced Communication classes. Table 1 shows the frequencies and percentages for the participant's gender and age. 64.28 percent of the 154 students were female, while 35.72 percent were male. In addition, most participants, i.e. 62.34 %, were less than 20 years old; 30.25 percent aged between 21 to 25; and 7.14 percent were 26 years old or older.

Table 1. *Demographic Information*

		Frequency	Percent
	Male	55	35.72
Gender	Female	99	64.28
	Total	154	100.0
	< 20	96	62.34
Age	21-25	47	30.52
	>26	11	7.14
	Total	154	100.0

Before starting the experiment, the Oxford Placement Test (OPT) was administered to form a homogenized sample. Based on the participants' performance, the OPT test results were used to ensure homogeneous groups. Then, participants were assigned into three experimental groups. Three groups were formed from seven intact classes: three classes from Shahr-e-Qods University, which formed a culture training activity group, and four classes from Islamshahr University, which formed a culture capsule and culture narrative groups. Subsequently, the three groups received three different treatments and specific assessments. The sampling procedure was convenience sampling.

Subsequently, an experiment was conducted to compare the possible effects of using culture narratives, culture capsules and culture training activities. To this end, the three experimental groups' final scores were measured to find the difference in the students' answers to the questionnaire or performance after a ten-session classroom treatment. The data collected in this study was analyzed through Repeated Measures ANOVA and Simple Effect Analysis.

The researcher used three instruments to carry out the present study: an Oxford Placement Test, a Pre-project Questionnaire and a Post-project Questionnaire.

In order to measure and determine the participants' general English proficiency level, exclude extreme ones and ensure their homogeneity, they were required to take the standard OPT test, which helps to determine the test-takers' English level quickly and accurately. This test evaluates grammar and use of English.

After the OPT test, the participants completed a pre-project critical cultural awareness questionnaire. This questionnaire was developed by Atai et al. (2017) and piloted with 370 Iranian participants. This questionnaire has three components and 37 items: (1) 'CCA in ELT Programs' including 20 items; (2) 'CCA in ELT Textbooks and Materials' including 13 items; and (3) 'CCA in General Terms' including four items. Five specialists in applied linguistics, as well as eleven experienced EFL teachers, review this instrument. They were asked to mark items whose wording could be enhanced, whose meaning was unclear, and whose existence was needless (Dörnyei, as cited in Atai et al. 2017). The reliability index of this instrument was calculated, which was Cronbach α = .75. Moreover, factor analysis was run to determine the construct validity of this scale. The questionnaire assessed knowledge, skills, and attitude through a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

After two pretests, the participants received ten-session treatment. Each group received its predesigned specific treatment based on three strategies to raise critical cultural awareness. After completing the course, participants completed the critical cultural awareness post-project questionnaire.

3. Results and Discussion

This study was undertaken in order to achieve the following two objectives. First, it explored to what extent each of the three techniques of culture narratives, culture capsules and culture training activities significantly improved their means from the pretest to the post-test. Second, it investigated the effects of the techniques of culture narratives, culture capsules and culture training activities on improving Iranian EFL learners' critical cultural awareness. The data collected in this study were analyzed through Repeated Measures ANOVA and Simple Effect Analysis.

Table 2 shows the skewness and kurtosis indices of normality. Since all values were within the ranges of ±2, it was concluded that the normality assumption was retained. It should be noted that the criteria of ±2 were proposed by Bachman (2005), Bae and Bachman (2010) and George and Mallery (2020). It should also be noted that Zhu et al. (2019) suggested the criteria of ±3.

Table 2. *Skewness and Kurtosis Indices of Normality*

		N	Skewness		Kurtosis	
Group		Statistic	Statistic	Std. Error	Statistic	Std. Error
Capsules	PreCCA	50	.309	.337	-.929	.662
	PostCCA	50	.024	.337	-.280	.662
Narrative	PreCCA	49	.342	.340	-.850	.668
	PostCCA	49	-.014	.340	-.662	.668
Activities	PreCCA	55	.205	.322	-.781	.634
	PostCCA	55	-.010	.322	-.283	.634

Note. OPT = Oxford Placement Test, Pre = Pretest, Post = Posttest, and CCA = Critical Cultural Awareness.

3.1. Reliability Estimates

Table 3 shows Cronbach's alpha reliability indices for the pre-test and the post-test of critical cultural awareness. The pre-test and the post-test of critical cultural awareness enjoyed reliability indices of .971 and .972. The reliability indices for the pre-test and post-test of critical cultural awareness was considered appropriate, as noted by Tseng et al. (2006), Dörnyei & Taguchi (2009), Fryer et al. (2018) and Harrison et al. (2021), who believed that a Cronbach's alpha value of .70 is the adequate reliability index for an instrument. However, George and Mallery (2020, p. 244) believe that "there is no set interpretation as to what is an acceptable alpha value. A rule of thumb that applies to most situations is; >.9 excellent, >.8 good, > .7 acceptable, >.6 questionable, >.5 poor and < .5 unacceptable". Based on these criteria, it was concluded that the pre-test and post-test of critical cultural awareness enjoyed excellent, i.e. >= .90 reliability indices.

Table 3. *Reliability Statistics*

	Cronbach's Alpha	N of Items
Pretest	.971	37
Posttest	.972	37

3.2. Exploring the major and minor research questions

The major research question asks whether using different techniques to develop critical cultural awareness significantly affects raising critical cultural awareness of Iranian EFL learners. The four minor research questions related to the main question probed each group's mean improvement from the pretest to the posttest and their differences through Simple Effect Analysis. Before discussing the results, the assumptions related to Repeated Measures ANOVA will be reported.

Repeated measures ANOVA, besides the assumption of normality, which was explored in Table 2, has three more assumptions: Homogeneity of variances of groups, sphericity, and homogeneity of covariance matrices. Table 4 displays the results of Levene's tests of homogeneity of variances. The non-significant results of the test indicated that the assumption of homogeneity of variances was retained on the pretest ($F (2, 151) = .443$, $p > .05$) and posttest ($F (2, 151) = 2.44$, $p < .05$) of critical cultural awareness.

Table 4. *Levene's Test of Homogeneity of Variances for Pretest and Posttest of Critical Cultural Awareness*

		Levene Statistic	df1	df2	Sig.
	Based on Mean	.371	2	151	.691
Pretest	Based on Median	.443	2	151	.643
	Based on Median and with adjusted df	.443	2	150.180	.643
	Based on trimmed mean	.387	2	151	.680
	Based on Mean	2.441	2	151	.091
Posttest	Based on Median	2.448	2	151	.090
	Based on Median and with adjusted df	2.448	2	143.791	.090
	Based on trimmed mean	2.432	2	151	.091

Repeated Measures ANOVA also requires that the correlation between pretest and posttest of critical cultural awareness be roughly equal across the three groups, i.e. homogeneity of covariance matrices. This assumption was explored through the Box's test. The non-significant results of the Box's test (Box's M = 7.11, $p > .001$) (Table 5). It should be noted that the results of the Box's test should be reported at .001 levels; Tabachnick and Fidell, 2014; Pallant, 2016; and Field, 2018.

Table 5. *Box's Test of Equality of Covariance Matrices for Critical Cultural Awareness*

Box's M	7.110
F	1.162
df1	6
df2	533352.603
Sig.	.323

Furthermore, repeated measures ANOVA assumes that the differences between pairs of dependent variables should have equal variances across the groups, i.e., Mauchly's test of sphericity. At least three dependent variables are required to test this assumption. Since this study included two dependent variables only, a pretest and a posttest of critical cultural awareness, the degree of freedom was zero. Consequently, the sphericity test could not compute the p-value (Table 6).

Table 6. *Mauchly's Test of Sphericity for Critical Cultural Awareness*

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilon | | |
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Tests	1.000	.000	0	.	1.000	1.000	1.000

The main results of Repeated Measures ANOVA will be discussed below. Table 7 and Table 8 show the Between-Subjects and Within-Subjects Effects results. These two tables should be reported despite their results not answering any of the research questions. Simple effect analysis will answer the first major null hypothesis and its three minor null hypotheses (Tables 10, 11, and 12). Based on the results shown in Table 4.6 ($F_{(1, 151)} = 6.49$, $p < .05$, partial $\eta^2 = .079$ representing a moderate effect size), it can be concluded that there were significant differences between the three groups' overall means on the pre-test and the post-test. In other words, if one computes the sum of the pre-test and the post-test of critical cultural awareness, there will be significant differences between the three groups' means of the total score.

Table 7

Tests of Between-Subjects Effects for Overall Pretest and Posttest of Critical Cultural Awareness by Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	2067286.448	1	2067286.448	3157.856	.000	.954
Group	8497.802	2	4248.901	6.490	.002	.079
Error	98851.968	151	654.649			

Table 8 shows the results of the Within-Subjects Effects that include two F-values. First, the significant results of the F-value for the effect of Tests ($F_{(1, 151)} = 66.66$, $p < .05$, partial $\eta^2 = .306$ representing a large effect size) indicated that if one compares the total sample's means on pretest and posttest of critical cultural awareness, disregarding the three groups, there will be a significant difference between the two overall means. Furthermore, finally, the results indicated that there was a significant interaction between Group and Tests ($F_{(2, 151)} = 7.03$, $p < .05$, partial $\eta^2 = .085$ representing a moderate effect size). It should be reiterated again that these results couldn't be used to answer any of the research questions.

It should be noted that Table 8 has produced four F-values for each of variable. All these F-values are the same due to the fact that the assumption of sphericity was retained. As shown in Table 6, the epsilon values of one indicated that no correction would be applied to table 8.

Table 8. *F-values*

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Tests	Sphericity Assumed	46984.389	1	46984.389	66.664	.000	.306
	Greenhouse-Geisser	46984.389	1.000	46984.389	66.664	.000	.306
	Huynh-Feldt	46984.389	1.000	46984.389	66.664	.000	.306
	Lower-bound	46984.389	1.000	46984.389	66.664	.000	.306
Tests * Group	Sphericity Assumed	9910.625	2	4955.312	7.031	.001	.085
	Greenhouse-Geisser	9910.625	2.000	4955.312	7.031	.001	.085
	Huynh-Feldt	9910.625	2.000	4955.312	7.031	.001	.085
	Lower-bound	9910.625	2.000	4955.312	7.031	.001	.085

	Sphericity Assumed	106423.508	151	704.791
Error	Greenhouse-Geisser	106423.508	151.000	704.791
(Tests)	Huynh-Feldt	106423.508	151.000	704.791
	Lower-bound	106423.508	151.000	704.791

Table 9 reveals the three groups' means on the pre-test and post-test of critical cultural awareness. The three groups had roughly equal means on the pre-test of critical cultural awareness. However, the culture narratives group (M = 106.85) had the highest mean on the post-test of critical cultural awareness. This was followed by culture training activities (M = 95.85) and culture capsules (M = 80.48) groups).

Table 9. *Descriptive Statistics for Pretest and Posttest of Critical Cultural Awareness by Groups*

Group	Time	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Capsules	Pretest	71.640	3.536	64.653	78.627
	Posttest	80.480	3.832	72.909	88.051
Narratives	Pretest	71.224	3.572	64.167	78.282
	Posttest	106.857	3.871	99.209	114.505
Activities	Pretest	66.127	3.372	59.466	72.789
	Posttest	95.855	3.654	88.636	103.073

After discussing the results of the Between-Subjects and Within-Subjects Effects, the results of simple effect analysis will be reported. Simple effect analysis, as defined by Field (2018), enables researchers to investigate the levels of one variable within another variable. The Repeated Measure ANOVA includes two variables: a Time variable, which represents the pretest and post-test of critical cultural awareness, and a Group variable, which shows the three groups, i.e. culture narratives, culture capsules, and culture training activities. Using a simple effect analysis, one can investigate the levels of Time variables across the Group variable and vice versa. Thus, we can make the following comparisons;

A: Each group's mean improvement from the pretest to the post-test was probed.
B: Three groups were compared on the pretest of critical cultural awareness to prove that they were homogenous in terms of their critical cultural awareness prior to administering treatments (Table 10).
C: Three groups were compared on the post-test of critical cultural awareness to probe the first major null hypothesis (Table 11).
D: Finally, each group's mean improvement from the pretest to the post-test was examined to probe the three minor null hypotheses (Table 12). All these results will be discussed based on the means shown in Table 14. The groups' means on the pretest of critical cultural awareness are compared below.

Table 10 shows the results of the Simple-Effect Analysis that compared the three groups' mean improvement from the pretest to the post-test. Based on these results and means shown in Table 9, it can be concluded that:

A: The culture capsules group did not show any significant improvement in their means from the pretest (M = 71.64) to the post-test (M = 80.48) (MD = 8.84, p > .05).
B: The culture narrative group had a significant improvement in their mean from the pretest (M = 71.22) to the post-test (M = 106.85) (MD = 35.63, p < .05).
C: The culture training activities group had a significant improvement in their mean from the pretest (M = 66.12) to the post-test (M = 95.85) (MD = 29.72, p < .05).

Table 10. *Simple Effect Analysis for Exploring Mean Improvement From Pretest to Posttest*

Group	(I) CCA	(J) CCA	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
						Lower Bound	Upper Bound
CAP	Posttest	Pretest	8.840	5.310	.098	-1.651	19.331
NAR	Posttest	Pretest	35.633[*]	5.363	.000	25.035	46.230
ACT	Posttest	Pretest	29.727[*]	5.062	.000	19.725	39.730

*. The mean difference is significant at the .05 level.

Table 11 shows the results of the Simple-Effect Analysis which compares the three groups' means on the pre-test of critical cultural awareness. The results indicated that;

There was not any significant difference between culture capsules (M^4 = 71.64) and culture narratives (M = 71.22) on the pre-test of critical cultural awareness (MD = .416, p > .05).

There was not any significant difference between culture capsules (M = 71.64) and culture training activities (M = 66.12) on the pre-test of critical cultural awareness (MD = 5.51, p > .05).

There was not any significant difference between culture narratives (M = 71.22) and culture training activities (M = 66.12) on the pre-test of critical cultural awareness (MD = 5.09, p > .05).

Based on these results, it can be concluded that the three groups were homogenous regarding their ability to develop critical cultural awareness before administering the treatments. Figure 4.1 shows the groups' means on the pre-test of critical cultural awareness.
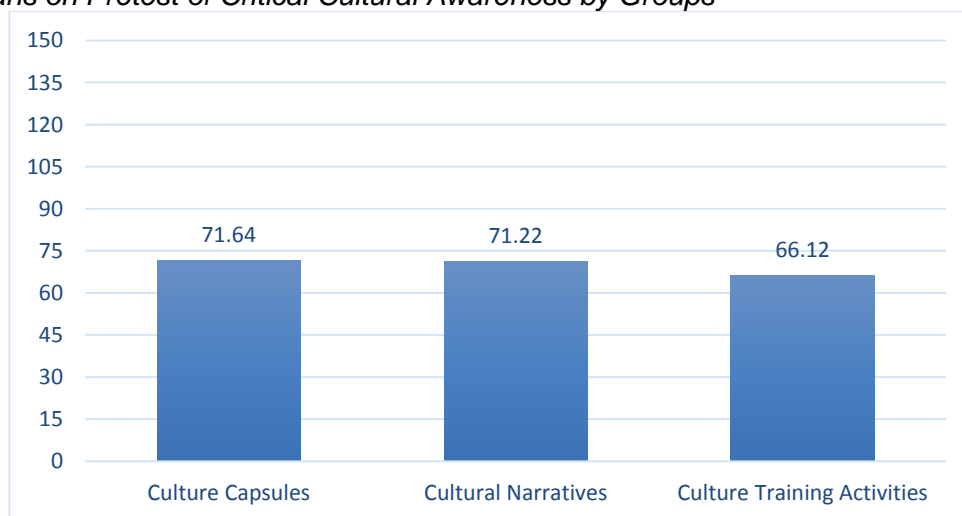
Table 11

Simple Effect Analysis for Comparing Groups on Pretest of Critical Cultural Awareness

Time	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
						Lower Bound	Upper Bound
Pretest	Capsules	Narratives	.416	5.026	.934	-9.516	10.347
		Activities	5.513	4.886	.261	-4.141	15.166
	Narratives	Activities	5.097	4.912	.301	-4.608	14.802

*. The mean difference is significant at the .05 level.

Figure 1. *Means on Pretest of Critical Cultural Awareness by Groups*

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[4] M and MD stand for Mean and Mean Difference.

Table 12 depicts the results of the Simple-Effect Analysis which compares the three groups' means on the posttest of critical cultural awareness. These results will probe the first major null hypothesis. The results indicated that;

The culture narratives group (M = 106.85) significantly outperformed the culture capsule group (M = 80.48) on the post-test of critical cultural awareness (MD = 26.37, p < .05).

The culture narratives group (M = 106.85) significantly outperformed the culture training activities group (M = 95.85) on the post-test of critical cultural awareness (MD = 11.00, p < .05).

The culture training activities group (M = 95.85) significantly outperformed the culture capsules group (M = 80.48) on the post-test of critical cultural awareness (MD = 15.37, p < .05).
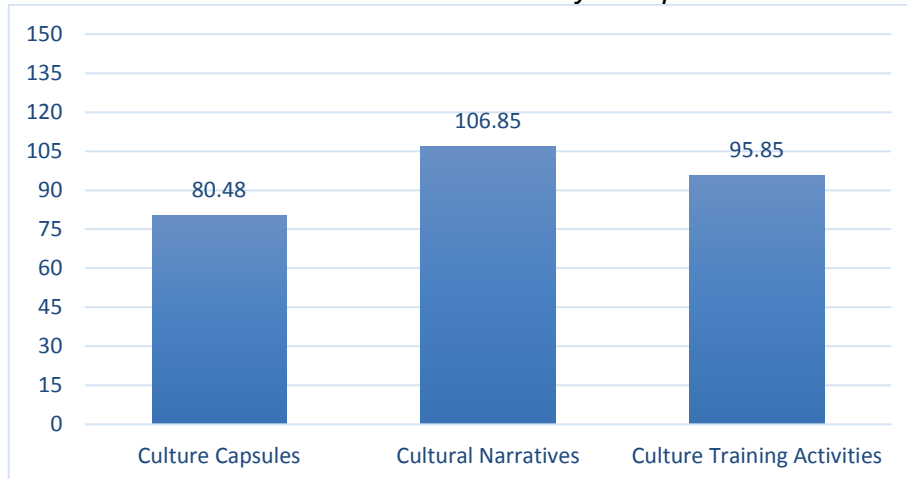
Thus, the major null hypothesis based on major research question, "using different techniques to develop critical cultural awareness did not have any statistically significant effect on rising critical cultural awareness of Iranian EFL learners" was rejected. Figure 4.2 shows the groups' means on the posttest of critical cultural awareness.

Table 12. *Simple Effect Analysis for Comparing Groups on Posttest of Critical Cultural Awareness*

Time	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
						Lower Bound	Upper Bound
Post	Narratives	Capsules	26.377*	5.447	.000	15.615	37.139
		Activities	11.003*	5.323	.040	.486	21.520
	Activities	Capsules	15.375*	5.295	.004	4.913	25.836

*. The mean difference is significant at the .05 level.

Figure 2. *Means on Posttest of Critical Cultural Awareness by Groups*

Finally, Table 13 probes each group's mean improvement from the pre-test to the post-test. These results will be employed to probe the three minor null hypotheses based on three minor research questions. The results indicated that:

The culture narrative group had a significantly higher mean on the post-test of critical cultural awareness (M = 71.22) than the pre-test (M = 106.85) (MD = 35.63, p < .05). The first minor null-hypothesis as "use of culture narratives as a technique for raising critical cultural awareness did not have any statistically significant effect on the development of critical cultural awareness of Iranian EFL learners" was rejected.

Table 13. *Simple Effect Analysis for Comparing Mean Improvement from Pretest to Posttest of Critical Cultural Awareness*

Group	(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
						Lower Bound	Upper Bound
Capsules	Posttest	Pretest	8.840	5.310	.098	-1.651	19.331
Narratives	Posttest	Pretest	35.633*	5.363	.000	25.035	46.230
Activities	Posttest	Pretest	29.727*	5.062	.000	19.725	39.730

*. The mean difference is significant at the .05 level.

Although the culture capsules group had a higher mean on the post-test of critical cultural awareness (M = 80.48) than pre-test (M = 71.64), their improvement from the pre-test to the post-test was not statistically significant (MD = 8.84, p > .05). The second minor null-hypothesis as "use of culture capsules as a technique for raising critical cultural awareness did not have any statistically significant effect on the development of critical cultural awareness of Iranian EFL learners" was supported.

Furthermore, the culture training activities group had a significantly higher mean on the post-test of critical cultural awareness (M = 95.85) than the pre-test (M = 66.12) (MD = 29.72, p < .05). The third minor null-hypothesis as "use of culture training activities as a technique for raising critical cultural awareness did not have any statistically significant effect on the development of critical cultural awareness of Iranian EFL learners" was rejected. Figure 4.3 shows the three groups' mean improvement from the pre-test to the post-test. And finally, as it is shown in Figure 3, the last minor question and its null hypothesis as "there is not any statistically significant difference between using culture capsules, culture narratives and culture training activities on the development of Iranian EFL learners' cultural awareness" was rejected.

Figure 3. *Mean Improvement from Pretest to Posttest of Critical Cultural Awareness by Groups*
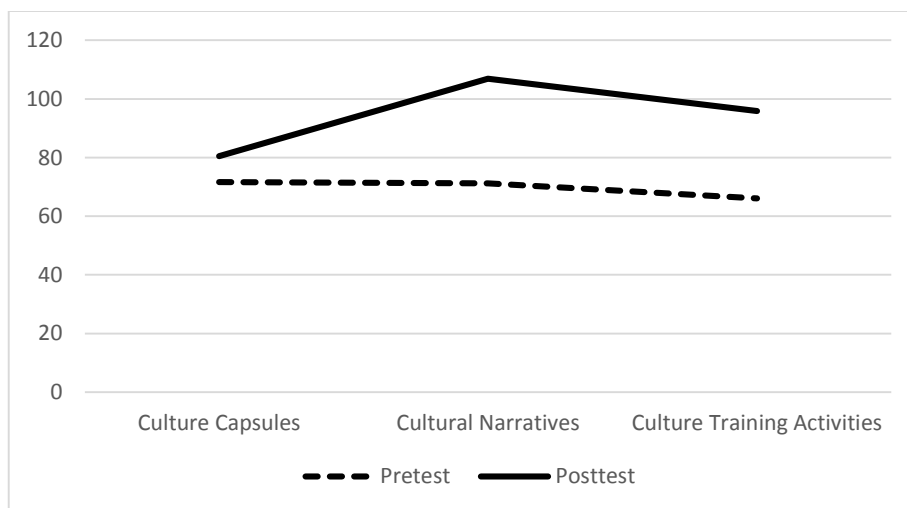
4. Conclusion

Critical cultural awareness (CCA) must be incorporated into the language-learning curriculum if instructors, material developers, and planners hope to assist learners in developing gratitude for the language and culture and an awareness of their own and target culture. The focus should be on developing skills to create capable, flexible learners who can communicate in real situations.

In Asian countries, including Iran, non-native speakers have taken most intercultural communication through English as a lingua franca. Consequently, understanding cultural context seems necessary. Learning English is not just learning linguistic knowledge; if we want successful communication, we must know how to interact and equip teachers and learners with critical cultural awareness. In other words, we should enhance our understanding of both native culture and target

culture and the ability to compare and contrast two cultures without judgment (Nguyen, 2023).

As a result, the close relationship between developing critical cultural awareness and its impact on language learning needs more attention. Teachers and students are the actual beneficiaries of including critical cultural awareness techniques in the language learning curriculum. In order to fill the gaps between the theoretical aspect of critical cultural awareness and its real pedagogical implications in the classroom setting, it is advantageous to present planners, instructional material developers, practitioners, and teachers with an insight into including these techniques in their instructional materials and classroom procedure. However, many more techniques regarding their effectiveness and practicality remain to be examined.

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Training parents for child sexual education to prevent sexual harassment

Article info

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Abstract

The present study explained the role and responsibility of parents and schools in the sexual education of children through library studies and qualitative-descriptive research methods in this field. Child sexual education requires parents to know when, what and how to pass it on to their child. Some parents think that it is better to keep the child away from any sexual issues so that sexual thoughts do not develop in their minds, but sexual questions inevitably arise in the minds of children and the ignorance of parents and their inability to answer some questions of children cause children to get confused about sexual issues. Therefore, the most important issue for them is to grow up in a safe environment physically, mentally and emotionally. In the meantime, due to the prevalence of abnormalities and widespread factors that make sexual deviations more and more widespread, it is the suitable implementation of sexual education methods that requires children to be raised in a healthy environment based on religious supervision and education. Employing such methods also guide their sexual instincts in the right direction, and protect them from all kinds of abnormalities such as masturbation, thirst, oral and verbal sexual abuse, prostitution and pornography that lead to sexual perversion and harm.

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1. Introduction

Because parents are the primary caregivers of young children, the quality and quantity of their educational knowledge is critical to improving children's growth and health. Children are learning from birth and relying on parents and other caregivers to care for and support them. Parental influence may not be as important in any period as childhood (Dunho et al., 2017). During this period, the child's brain is learning rapidly, and the experiences of parents and others around them are very important. Parents have more or less information about the field of education, but this knowledge must be valid and based on scientific studies. Several studies have shown that in addition to child-related factors such as child temperament, environmental factors such as low income, crowded and dangerous neighborhood, the influence of peers, media, inadequate social support networks and family variables such as poor parenting, parents' marital problems, the psychological damage of parents as powerful predictors, are the negative consequences of the child's development.

One of the predictors of successful child development is the knowledge of child rearing. Mothers who know more about their child's development report more positive interactions with their children and more positive descriptions of their children. Mothers' educational knowledge is related to children's performance on a Bailey scale for children's development (Dichtelmiller et al., 1992), and more aware parents have children who have fewer behavioral problems. Conversely, misconceptions of parents are considered as an analysis of the child's developmental process. In addition, the knowledge of child rearing is considered as a guide for parents' decisions about the quality of children's health, disease prevention, and how to use health services effectively.

One of the important areas of child rearing knowledge is their awareness of the quality of child sexual development and related issues. At present, our knowledge of children's sexual orientation and development is somewhat inconclusive; experimental research has provided little information. Lack of scientific knowledge in this area is probably a good reason to evaluate children's sexual behaviors (Hess, Tetti, Hossey, & Gardner, 2014).

The four most important parent-related factors that are effective in treating problematic sexual behaviors are: parental management skills, sex education rules related to "We parents have to know", sexual behavior, and prevention of abuse. Goli et al. (2016) in a study on the "effect of sex education on mothers' knowledge, attitude and practice in answering girls' questions" found that sex education empowers mothers to answer adolescent girls' sexual questions and increases their knowledge, attitude, and it is used in their performance. Therefore, due to insufficient information of parents, especially mothers about answering adolescent sexual questions, it is necessary to provide solutions and training to raise the awareness level of mothers and change their attitudes. Mostofi et al. (2016) in the study "The effect of group education on knowledge, attitude and practice of mothers in girls' sexual education" found that group education can make significant changes in the level of knowledge, attitude and practice of mothers who have a teenage daughter.

In fact, the family, as a social institution, has a set of behavioral and normative patterns that have been formed in order to meet human needs. Therefore, the family in its general and functional sense is a historical and global phenomenon and it is rare to find a society that does not have a family, although it can be acknowledged that this institution had different developments in its formation and institutionalization. In this regard, the ultimate goal of family education is to eliminate educational inconsistencies between home and school. The trainings that parents urgently need are many and varied, considering the progress of society and the changes and transformations that we see every day in the context of society. In this regard, the questions that arise in the public mind about parent education should be answered; what their real educational needs are considering their individual, family and cultural variables.

Given that sex education is one of the most difficult and sensitive types of education in families, among these, the level of knowledge and attitude of parents, especially the mother, has

the most crucial role in educating healthy sexual behaviors of the child in the pre-school years. Gender includes components that are equally important. They include anatomy and reproductive health, sexual orientation, pregnancy, childbirth, health, public health care (sexual identity and sexual roles), how we see ourselves as men or women, and what men and women should do about it. Act, we are trained (relationships) behaviors, expectations, satisfaction, abuse, etc. (love and affection) how we express our love and affection for friends, family and others (how our body image feels about the body and our needs); Sexual orientation, physical and emotional attraction to a man, woman, or both (lust and pleasure) acceptance and enjoyment of our body and acceptance and enjoyment of the body of our sexual partner (sexual activity) intimate activities such as embracing , kissing, touching, and sexual intercourse (sexual exploration and play) They are a natural part of a child's sexual development and not only help children learn about their bodies, but also learn about the cultural and social laws that govern sexual behavior. Parents' awareness of gender issues such as, distinguishing normal sexual behavior from abnormal behavior, appropriate treatment of a child with sexual behavior issues, age-appropriate behaviors, time of sexual education, how to form sexual identity, puberty, communication with peers , control of children's information resources, etc. is effective in preventing children's maladaptive behaviors and parents' sense of adequacy and self-efficacy. Research has shown that comprehensive sex education programs have a positive effect on delaying the onset of sexual behavior, reducing the number of new sexual partners, and reducing the incidence of unprotected sexual curiosity in children. Most experts, professional organizations, and even parents support comprehensive sex education.

Studies show that children and adolescents want to learn about sex through their parents. Although the majority of sexual communication is made by mothers, boys feel that the content is meaningfully directed to the girls' experiences. As a result, boys use other sources such as peers, media, and the Internet to learn about sex. Even when parents want to talk to their children about sexual behavior, they feel ashamed and upset, as well as lack of knowledge and skills. They do not have to do that. Some parents are reluctant to talk about sexual issues and trainings because of their beliefs and insights. Because they think that providing information awakens their children's sexual instincts. While they need to know that the more and more information children and adolescents know about their bodies and their gender issues, the more conscious their sexual behaviors will be. In any case, children address their curiosity through various sources such as friends, magazines, media, etc. Previous studies of students' attitudes and parents' reports of children's behavior show that a significant number of children engage in some form of sexual behavior. For example, 42% of college students reported that they usually had sex with another child when they were 12 years old or younger.

2. Methodology
This research is an applied research in terms of its purpose, and the method of qualitative research is inductive content analysis, based on the issues related to sexual education and sexual education curriculum and extract themes based on Quranic verses and narrations of the Infallibles (PBUH). The use of inductive approach, also known as conventional content analysis, becomes more necessary when there is insufficient data on a phenomenon and the researcher wants to provide the necessary background knowledge about it. This method of analysis further seeks to reduce the data and provide a descriptive and overview of the background of the research topic. The source data collection of research includes books, articles, Islamic texts.

2.1. Sex education
One of the most important and fundamental instincts is the sexual instinct, which plays an important role in how the human personality is formed, and its manifestation in the form of erotic desire for legitimate gratification causes the emergence, continuity and survival of the generation. The need that this instinct creates in man, like other needs such as the need for God, is security

and rest, but the quality and timing of its fulfillment may lead to growth or cause humiliation. The importance of satisfying this need in all stages of life is such that it can be said that everyone has their own sexual personality. The axis of instinct in individuals is accompanied by the emergence of sexual, psychological and emotional changes. Several movements, alliances of forces emerge in its shadow and much selfishness, ostentation and selfishness is achieved as its result (Far Mahini Farahani, 2011).

One of the most effective ways to increase children's awareness, attitude and ability to protect themselves is sex education, which is necessary to prevent future high-risk sexual behaviors and their negative consequences (Rice et al., 2011). Sex education or sex education as a process of behavior change involves the long-term flow of information about privacy, sexual identity, and relationships. The most important goal of sex education is to develop positive sexual behaviors, which include: self-confidence, respect for oneself and others, avoidance of rape and sexual violence, sexual experiences, health, and planning for parenting. The goal is to develop healthy sexual attitudes during the developmental period by acquiring sexual knowledge and skills that protect one's present and future sexual health. This makes it possible to prevent unexpected pregnancies in adolescence, abortion and sexually transmitted diseases. Therefore, sex education should be considered in a framework that includes biological, cultural, social, psychological and religious dimensions (UNESCO, 2009, quoting Razzaqi, 2011).

Sex education begins in childhood and continues into adolescence. Positive and suitable answers of family, educators and peers cause the healthy growth of this new identity, but negative or inappropriate answers have negative effects on sexual identity and sexual behavior (Lotfabadi, 2011).

2.2. Theories of sexual education
A) Sex education in the field of religion
There is a great difference in opinion between the people of the world on this important issue of life. In Western societies, there are several different views on this issue. One is the Catholic view of sexual morality, which is very close to Islamic standards; the second is the Protestant view, which is a mixture of traditional and liberal views of sexuality; it leaves sexual morality solely to the decisions of individuals, and its only boundary and obstacle is the laws that imposes small restrictions within the framework of the individualistic system based on the unrestrainedness of the great global capitalist system (Lotfabadi, 2011).

A knockout view of sex education
This view emphasizes the prevention of any satisfaction of sexual instinct and believes that its satisfaction prevents a person from reaching human perfection. This view was prevalent during the Church's rule in Europe, as well as in monasticism and modernism in other parts of the world, until the last two or three centuries, when the law that governed the law of the Church, the European world tried to limit relations to the extreme. Basically, in church law, sexual intercourse, even with a religious woman, was absolutely filthy. According to them, woman was inherently an evil creature and the act of intercourse, even with a religious woman, was a dirty act (Motahhari, 1999).

In addition to medieval Christianity, there were other beliefs and ideas opposed to sexual instinct including Monasticism and Abstractionism in India (Brahmanism, Jainism, Buddhism) Monasticism and Abstractionism in China and Greece (Like the Clebion School) (Hekmat, 1993). These groups have a different view of sexual motivation and related issues, and even shy away from marriage and talk about sexual issues with shame. For example, Maha Vira, the founder of the Jain religion and one of the believers in this thought, said: "The love of a woman is the greatest cause of falling and affliction in this world." Also in the Manichaean religion of ancient Iran, there was a spirit of pessimism towards the world and material belongings, including the denial of marital relations. According to Mani, our worst desire is to love our wife and children.

Some religions, such as Christian Protestants consider sex to be inherently filthy. According to them, only those who live single until the end of their lives reach spiritual status. The manifestation of this kind of view can also be seen in Catholics (Rahnama, Aliin & Mohammadi, 2007).

A positive view of sex education
This view is in contrast to the exclusionary view and emphasizes the unlimited satisfaction of the sexual instinct. This view introduces an approach to sexual ethics that can be called sexual promiscuity (Far Mahinieh Farahani, 2005). The underlying factor of this view can be found in the misunderstandings of Freud's ideas or in Russell's ideas. In fact, the Western world today is a 180-degree turn in sexual morality. Today, there is talk of sanctification and respect for sexual beliefs and relations and the need for freedom, and the removal of any restrictions in this field (Motahhari, 1999). Freudian thought has been the impetus for some adventurous experiences in education (in some countries). In Sumerhill, for example, ES Neil has given children a lot of freedom in everything, including sexual freedom. Nevertheless, such extreme innovations are rare (Fadaei, 2008).

Islam's view on sex education
What is the view of Islam in this regard? The answer is that the instinct is a reality that exists in man and is one of the creations of God. Regarding the aspect of gender in creation, it should be said that Islam in this regard does not believe in the filth of this instinct, and therefore does not allow it to be blinded and eradicated in human beings. However, at the same time, it does not believe that it should be left free and unfettered or that it should be promoted through direct training. Islam condemns the free relations between girls and boys, men and women in society, and in order to implement Freud's way of thinking in this regard, it considers corruptions and harms that we see examples of in the valley of the world today (Ghaemi, 1993).

Islam's view of sex education is quite different from Western thought. The purpose of sex education in Islam is to nurture, adjust, and direct, not to nurture and elevate. Islamic law recommends the need to observe moderation and avoid excesses not only in the field of sexual instinct but in all aspects of life. In Islam, sexual instinct is accepted and respected as a fact of human existence. Sex education in Islam is a set of educational measures related to sexual instinct, including guiding, controlling, modulating and regulating the sexual instinct that the religion of Islam has used to maintain physical and mental health, chastity, honor and dignity. According to Islam, in the conflict between intellect and lust in man, not only intellect can be proposed and considered and not lust can be denied and denied, but it is the balance between these two third paths that leads to education and without passing through efficient and appropriate sexual education. With sharia and custom, time, place and necessities, we will not reach the truth (Far Mahini Farahani, 2011).

In Islamic teachings and Islamic evaluations of sexual behavior, sexual identity, is stated: Islam not only does not consider sexual interest and its effects to be in any way filthy, but also fights hard against austerity in sexual matters and celibacy and marriage, and marriage is sacred and celibate. Islam has tried to regulate this interest. Religious leaders have provided many guidelines on the feeling of sexual identity and understanding the proper way to apply the criteria of sexual role, from birth to adolescence and adulthood, in the process of individual and social life and family formation, and many narratives on the value of the characteristics of each. The two sexes are emphasized in the service of each other, and each person has led both sexes to consider sexual identity, and adherence to duties appropriate to the characteristics of their sex (Lotfabadi, 2011).

Table 1. Summary of the principles and methods of sexual education (Far Mahini Farahani, 2011)

The basis of sexual education	Principles of sexual education	Sex education methods
The basis of weakness	The principle of tolerance and carelessness The principle of Sa'eh Sadr	How to stage assignments Assignment revision method Conversation method
The basis of the effect of conditions on humans	The principle of amending the conditions The principle of paying attention to the requirements of the time The principle of control in friendships and associations The principle of moderation	Grounding method Model method How to fill leisure time Awareness method Learning method Method of observing justice and caution How to pay attention to gender differences
Basis of need (sexual need as a natural need)	The principle of paying attention to individual differences The principle of introducing sexual instinct as a capital The principle of rationality	Individual training method Responsibility method Critical method Self-calculation method
The basis of thinking	The principle of thinking and reminding	The method of enjoining the good and forbidding the evil How to tell stories and stories The method of preaching and admonition
The basis of the effect of appearance on the interior	The principle of self-construction The principle of cultivation	How to control yourself Habit method The way to avoid worldliness Method of imposing on the self How to control human entrance gates (eyes and ears) Amnesty and forgiveness method
The basis of dignity	The principle of self-esteem The principle of modesty and zeal	The method of negligence How to strengthen faith Method of strengthening chastity The method of chastity in words
The basis of the existence of different stages of growth and evolution in man	The principle of sex education according to the requirements The principle of gradualism	Homework method to a large extent The method fits the growth rate and understanding of the instructor

B) Ethical theories and sexual education

The moral standard is a set of accepted standards and criteria of the people in the society. Moral relations have definite and strong historical roots. These relations are strongly related to the social and economic system of the society, and for this reason there is a difference in the class of the separate age classes. Therefore, the adolescent generation has no right to blindly imitate the behavior of the youth of countries where all aspects of their lives depend on self-interest and sex. Each of the historical periods has its own ethics, customs, and traditions, on the basis of which ethical principles and racial theory have been formed. The gradual combination of moral relations leads to the emergence of an independent science of ethics and customs. From the moment of its emergence, ethics begins to play an all-encompassing role in educating the younger generation. Hence, ethics answers the most important issues of human behavior (Kuchtkov and Lapik; translated by Taghizadeh, 1985).

C) Theories of psychology and sexual education

One of the most influential people in this field is Sigmund Freud. According to Freud, irrational forces, unconscious motivations, and biological and instinctive drives that are formed through the psycho-sexual stages in the first six years of life determine our behavior. Instincts are very important in Freud's approach. He used the term libido to refer to sexual energy as a source of motivation, of which sexual energy is a part. His main goal in life is to gain pleasure and avoid pain (Kerry, 2005; translated by Seyed Mohammadi, 2010). Freud emphasizes childhood and its effect on personality formation. He divides human development into several stages that the child goes through from birth to adulthood. This division is based on sexually sensitive areas at each stage of time. Freud discusses evolution from a psycho-sexual perspective and divides sexual desire into five main periods;

- Oral stage: Between infancy and two years old.
- Anal stage: Between 15 months and three years old.
- Phallic stage: Between three and six years old.
- Latency stage: Between six years old and puberty.
- Genital stage: Between puberty and death (Shafi'abadi & Naseri, 2009).

Adler did not consider sexual desire as the main motivating force, but accepted it as one of the main tasks of life. The reality of life is that we exist in two sexes. Adler's followers believe that the task of life is for both sexes to learn to achieve mutual pleasure and meaning in their sexual relationship. When describing our sexuality to some extent based on culturally defined definitions and notions, we should try to relate to the opposite sex, not to compete with the opposite sex. If we consider the other sex as the opposite sex, then instead of cooperation that results from being a human being of the same sex, we are encouraged to compete and conflict. According to existential psychologists, sexual desire is less important than intimacy. Contrary to psychoanalysts, they believe that sexual desire is not human nature. If we say we should be sexual or we can't be sexual, it is in any case Sunnah. We can be sexually free; this means the freedom to say yes to our sexual desires when it is better to say yes, as well as the freedom to say no to sexual desires when it is better not to say no (Prochaska and Norcross, 2007; translated by Seyed Mohammadi, 2012). In the sixth month, the baby becomes aware of its genitals, and this perception is gained during many of the sensory-motor explorations found at this stage. At the age of two, touching the penis occurs as an activity, and this increases when taking a bath or wearing clothes. This habit lasts until the age of four, after which it is gradually forgotten. At the age of five, children pay a lot of attention to themselves and others. This attention is more on the mother (of course, in girls it is more on the father) so they hug her tightly and cling to her and constantly touch her body to the point that they even want to touch the hidden parts under the clothes, therefore, in some children, behaviors that resemble sexual behaviors occur. From the beginning of the age of six until the beginning of adolescence, sexual attention decreases significantly because children enter the stage of relaxation at this time and it seems that they have mastered their sexual instinct (Shabankari and Motlagh, 2007).

Sex education as the main axis

UNESCO (2009) defines sex education as the process of acquiring information and shaping attitudes, beliefs and values about important issues such as identity, relationships and intimacy throughout life, to which everyone has the right to comprehensive sex education. Sex education helps to identify the social, cultural, biological, biological, psychological, and spiritual dimensions of sex by providing information, discovering feelings, values, and attitudes, and improving communication, decision-making, and critical thinking skills (UNESCO, 2009).

To this end, a program has been developed in Europe called the Community Education Guide and Educational Standards, which includes the following six key concepts:

Key Concept (1): Human growth; Key Concept (2): Communication; Key Concept (3): Individual Skills. Key Concept (4): Sexual Behavior; Key Concept (5): Sexual health; Key concept (6): Society and culture.

Together, these concepts refer to the central issue that (1) human evolution includes physical, emotional, social, and "intelligence" development. (2) Relationships play a central role throughout life. (3) Healthy sexual orientation requires the development and utilization of specific individual and interpersonal skills. (4) Sexual desires are an important part of human existence and people express their sexual desires in a variety of ways. (5) Promoting sexual health requires specific information, attitudes, and attitudes to avoid the unintended consequences of sexual behavior. (6) Social and cultural environments determine how individuals learn and express sexuality (Müller, Gavin, & Kulkarni, 2008).

In religious texts, in order to prevent sexual deviations and foster healthy sexual behaviors in children, parents have been trained as the closest person to them (Merghati Khoie, Abolghasemi & Taghdisi, 2013). According to the International Guide to Sex Education published by UNESCO in 2009, the most important goals of the school sex education program are as follows:

Table 2. Key Concepts and Topics of Sex Education in Schools Program, UNESCO 2009

Key Concept (1) Relationships	Key Concept (2) Values, attitudes and skills	Key Concept (3) Culture, society and human rights
Topics: 1-1 Family 1-2 Friendship, love and romantic relationships 1-3 Patience and respect 1-4 Long-term relationship, marriage and parenting	Topics: 2.1 Values, attitudes and resources of sex education 2-2 The effect of norms and peers on sexual behavior 2-3 decisions 2-4 Skills Refusal in relationships 2-5 Get support and help	Topics: 3.1 Gender, culture and human rights 3-2 Gender and media 3-3 The gender structure of society Gender-based violence, including sexual abuse and exploitation
Key Concept (4) human development	Key Concept (5) Concept of k Sexual behaviors Concept	Key Concept (6) Sexual and reproductive health issues
Topics: 4-1 Anatomy and sexual and reproductive physiology 4-2 Reproduction 4-3 Maturity	Topics: 5-1 Sexual issues, gender and sexual life cycle 5-2 Sexual behavior, sexual responses	Topics: 6-1 Contraception 6-2 Understand, recognize and reduce the risk of sexually transmitted diseases such as AIDS

Given the demand presented, it seems that teaching parents about sex education will have several effects:
1. It will increase the interaction between parents and children, which according to the need of children and adolescents for a proper relationship with parents, will help in this matter and create intimacy between them (Key Concept 1; Relationships).
2. By teaching the topics related to puberty changes correctly to children, it will reduce their anxiety, help increase their self-esteem and correct understanding of puberty and readiness to accept change in adolescents (Key Concept 2; Values, Attitudes and Skills).
3. By teaching topics related to love, love and human relationship (which is one of the issues raised in sex education) will increase the awareness of children and adolescents about their emotions, which helps reduce anxiety (Key Concept 1; Relationships).
4. By teaching issues related to physiological changes during puberty and its effect on the mood and emotions of children, adolescents, will make them aware of these changes and more prepared, which will also reduce anxiety (key concept 4; human development).

Child sex education (preschool, elementary)

The most important issues that should be considered in the sexual education of children in this period are creating desirable sexual habits or, in fact, preventing undesirable sexual habits, giving appropriate and comprehensible answers to children's sexual questions, helping to form a sexual identity appropriate to the child's gender, and preventing early sexual arousal. This stage of development (elementary period) is the stage of necessary trainings and preparations to enter the world of puberty.

The main role of sex education in childhood and the development of appropriate habits is the responsibility of parents. They should receive the necessary and clear education in the field of sex education and help them to be prepared to answer their children's sexual and biological questions by referring to appropriate books and religious texts. A child between the ages of 3 and 5 is curious about his or her physical characteristics and the sexual differences between a girl and a boy, and the cognitive aspect of his curiosity is explicit. The kind of questions a child has about his or her creation, the quality, usually his or her origin and how he or she was born, questions such as "Where did you bring me from?", "Where does the baby come from?" and "Where have I been?" These are normal questions. The child's view of his body and that of his peers is not the same as that of the parents; therefore, in answering these questions, it should always be noted that the child's educational process should be gradual and not all the details should be given to him at once. The answers to the questions should be short and simple (Ouhadi, 2001). At 6 and 5 years of age, the activity of sex hormones is low, at the age of 7, boys express interest in girls, but this expression has a friendly aspect, not a sexual one. Sometimes children look at their bodies while bathing, using the toilet, or changing clothes, or manipulate their penis out of curiosity. This behavior is sometimes due to sexual problems (dry or itchy or burning skin of the penis). In some cases, anxiety triggers this behavior, and in this way, the child gains comfort. In general, this behavior is more common when bathing, playing, fatigue, impatience, when studying (at school age). In such cases, the parents should keep calm and prevent the child from such behavior. One of the issues that parents play an important role in shaping is "sexual identity". Gender identity is a concept that a person has as a man or a woman. In fact, each person's image of being a man or a woman and his or her perception of what a woman or a man is like builds his or her identity. In fact, sexual identity is closely related to sexual role (Far mahini Farahani, 2008). The five-year period of primary school is a critical period and important and crucial in terms of establishing moral and educational personality. This course is a course for learning the basics, establishing habits, the child's relationship with others, and the beginning of the emergence of some slips and deviations. Finally, sex education is a gradual and step-by-step process that should be based on the characteristics of children and adolescents. Human talents flourish in the direction of absolute perfection based on their abilities and with a gradual movement. In sex education, providing information alone is not enough, but the behavior and attitude of parents towards sexual matters are very important in the effectiveness and efficiency of education (Ghaemi, 1999).

4. Conclusion

Despite the importance and place of sex education, research shows that families are unable to educate their children sexually, and even though information exchange is prevalent among students, they are reluctant to receive such information through their parents as they describe talking about it as embarrassing. Therefore, it is necessary to pay attention to sex education in the education curriculum system.

Little knowledge of children about the physical-psychological changes during puberty, receiving incomplete information from unreliable sources, causes many physical-psychological problems in their family life. On the other hand, proper awareness causes their happiness, health, hope for independence, and social development, and protects children against physical and mental illnesses caused by this ignorance. Unfortunately, children are deprived of proper health

awareness about puberty and fertility due to special cultural reasons, which are also discussed in many societies, and in this regard, they suffer a lot of harm, so determining appropriate and effective solutions for meeting their educational needs requires great care and attention. Issues such as adapting educational content to age and religious, cultural, social, economic, physical conditions, skills, educational characteristics, and how to provide information should be fully considered. Explaining the results obtained in this study, it can be said that group sex education has helped parents by identifying common problems and issues in adolescents and providing solutions for puberty features and symptoms, and puberty health tips. It can increase their awareness of the adolescence and the issue of sex education and thus help them find a more positive attitude towards this issue.

Research by victims and colleagues on the subject of educating and promoting children's sexual health (content analysis) showed that empowering parents through educational programs leads to the provision of necessary, accurate, and complementary information about puberty (such as menstruation). The results of this study also showed that mothers communicate with their daughters more easily than their sons and can talk to them more about sexual issues. The results of the present study are in line with the research conducted Vaghari Zamharr et al. (2002) on the subject of examining parents' attitudes and actions towards their children's sexual education. It should be noted that the results of the present study also showed that parents' attitudes toward sexual education of their children have positively increased by providing appropriate educational programs, and contrary to the prevailing perception that education related to sexual education will face parental resistance, the study found that most of the participating parents were relatively prepared to receive these trainings. Najmabadi, Babazadeh, Mousavi, and Shariati (2018) also reported similar findings in their study.

The most important factor in the success of adolescent sex education programs in Iran from the perspective of educators are:
1. political problems such as the government's failure to adopt a clear strategy,
2. cultural and social problems such as taboos,
3. structural and executive problems such as inadequate structure of the health system
4. No use of the potential of religion.

The results of this study also showed that parents' accurate understanding of children's sexual status and having sufficient information in the field of sex education, is very important and should not ignore the questions or sexual awakening of adolescents or scare children with prejudice and extremism. Consistent with the results of the present study, the results of some studies also showed that comprehensive sex education programs have a positive effect on delaying the onset of sexual behavior, reducing the number of new sexual partners, and reducing the occurrence of unprotected sexual curiosity in children. Overall, these studies showed that the designed educational intervention has an essential role in improving mothers' knowledge, attitude and sexual function, and mothers can play a key role in teaching sexual issues to their children. Therefore, mothers' skills training for sex education requires continuous and regular training sessions with practice and experience.

Although teaching how to communicate with children is one of the most important needs of mothers that was not addressed in this study, most of them acknowledged the importance of information and understanding of this period of their children's lives. Therefore, in order to prevent the complications and problems of children in the field of sexual education, we need to educate mothers in order to adopt the suitable educational methods and appropriate unhealthy behaviors in order to take a step towards the health of individuals and promote the health of society. The result is that answering children's sexual questions and providing information to them should be provided gradually in the family environment and should be based on their age and position, so that maternal needs are met by the mother and paternal needs are answered by the father. In this regard, some experts in sex education and the prevention of abuse, believe that sexuality and educating children is very effective in diagnosing appropriate and inappropriate

touch. Therefore, it is necessary for parents of children, especially mothers, to first obtain the appropriate information to educate children and answer their questions through education, then, while establishing a sincere and trusting relationship with their adolescent child, teach sexual issues. In this way, they minimize the risk and the possibility of obtaining incorrect and inappropriate sexual information for their children. The results of this research can be very useful for educators and experts who work to educate children. It is also necessary to provide conditions for these courses to be held in schools for mothers in order to reduce the problems of children and students. It should be noted that comprehensive sex education can help children to create an appropriate framework of complex and critical health and social issues in the mind. Providing accurate information about sex and related issues can lead to a healthier life.

In general, it can be said that due to the cultural barriers and the specific beliefs and prejudices of the parents of our society, it is very important and difficult to conduct extensive studies in the field of sex education for adolescent girls and boys, as well as their parents. The education system can also indirectly educate students through extensive planning from an early age and help increase parents' awareness and attitudes about sex education to their children by holding parent education courses.

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Designing and developing job fatigue scale for elementary school teachers

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Abstract

The present research was conducted with the aim of Designing and developing Job Fatigue Scale for Elementary school Teachers in 2024 in a employing both qualitative-quantitative date. In the qualitative phase, official documents and opinions from experts in this field were used to obtain the basic structure of the tool, and in the quantitative section, the basic structure of the tool was given to samples of three target communities in three stages to check the validity and reliability of the tool. The findings of the qualitative section showed 51 effective components in reducing job fatigue, based on which the initial pool was prepared with 81 items. The Holsti's coefficient of reliability was 0.864 and the results of the content validity investigation led to the removal of 29 items. Therefore, a 52-item questionnaire was formed based on the qualitative and quantitative data. Consequently, using factor analysis and Cronbach's alpha coefficient led to the removal of 7 items from the final form. Finally the structure of 45 items with 4 educational-psychological, psychological, behavioral-organizational and managerial-organizational factors was confirmed. Among the 4 factors affecting job fatigue, the educational-psychological factor took the first rank and then the psychological, behavioral-organizational and management-organizational factors took the second to fourth ranks respectively. In general, considering the validity and reliability of the developed model, it can be used to evaluate the level of job fatigue of primary school teachers.

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1. Introduction

Undoubtedly, an efficient and powerful workforce plays a decisive role in countries achieving excellence in various economic and social fields (Taghipour, 2016) and teachers play the most important role in nurturing the future workforce of a country, i.e. students (Chen, 2007 as cited in Javan, 2022). As nowadays the expectations from employees inside and outside this social system have increased, teachers are constantly under work pressure, factors such as work difficulty, low income, working hours, strict and formal leadership style, irrelevant expectations of officials, organizational culture and many other factors can cause psychological pressure in teachers (Niknam, 2015). This tension probably puts them under more pressure, endangers their health and personal comfort, and causes psychological stress (Mirzaei et al., 2013). As a result, symptoms of fatigue appear in the person.

Fatigue is a mental term associated with physical fatigue, mental fatigue, rapid fatigue and common complaints after a long hard day at work as listed by (Wan et al., 2017). Physical fatigue refers to a decrease in muscle function and is defined as a decrease in strength or energy required in response to movement and action. Mental fatigue indicates a decrease in cognitive functions such as concentration, thinking, learning and quick response (Abd El-Fattah et al., 2015), which is in the form of cognitive disorders, disturbance in the pattern and quality of sleep that leads to sleepiness during the day, headache or migraine, a feeling of sadness and a decrease in productivity. In addition, fatigue may lead to sick leave and inability to work (Aryal et al., 2017).

In this regard, Leary and his colleagues (1986) described fatigue as a mental experience related to cognitive-emotional processes, and according to Hill and Perkiness (1985), fatigue occurs when stimuli are considered as monotonous mental tasks. Therefore, it is a phenomenon specific to living beings. All human beings have definitely experienced it in their daily life and it is considered as an important issue, and it may negatively affect the job performance of people, including decision-making problem, forgetting details, and indifference. It interferes with essential functions and their performance drops (Azad et al., 2015). Therefore, in this research, the primary objective was designing and developing occupational fatigue scale for primary school teachers.

In general, occupational fatigue in workplaces is usually associated with non-standard schedules, such as long working hours. It can also be related to other factors in the workplace, such as physically or mentally demanding tasks, or working in hot environments. Therefore, its high levels can affect any person in any job or industry and have serious consequences for the safety and health of people (Adem, 2020).

In fact, many factors are associated with higher job burnout. For example, stressful life events are associated with higher levels of job burnout and are a predisposing event for many mental illnesses (Rahm et al., 2020). According to researchers (Hosseini and Farahmand, 2018), this variable is related to psychological pressures, and as a result, it causes a negative experience in the individual and job fatigue, and this causes deterioration in the quality of services provided by employees. Research has shown that teachers' job fatigue and its dimensions (external stimuli, internal stimuli, emotional reactions, perception of time and restlessness and indifference) are effective on the indifference of teachers in secondary schools (Beykzadeh and Rahmati, 2016). Another study has also shown that job fatigue causes depression and counterproductive behaviors. For this reason, in order to reduce job fatigue and its adverse consequences, it is recommended to pay attention to the mental and psychological issues of employees (Parizadeh & Neysi, 2018).

Job fatigue, which is a common human experience, is more common among female teachers and has turned them into high-risk groups for falling into this disease, which may be due to work pressure factors such as communicating with students with different levels of behavior and learning, handling children, having a husband and other stressful factors (Nasseri Plengerd et al., 2016). It has been said that work pressure has a significant effect on job fatigue and lack of human resources. Also, the disproportion of salaries and benefits has a significant effect on job fatigue and lack of human resources (Alipour, 2020).

In addition, research results indicate that job fatigue is associated with the dimensions of emotions and perfectionism (Hejazi & Hashemi, 2020). Studies have shown that occupational fatigue is closely related to the activities and work habits of a person, and correcting some wrong behaviors such as inactivity and not paying attention to the amount of rest can play a major role in its occurrence (Kirimi & Honarbakhsh, 2016). Also, occupational stress has many adverse effects on various aspects of human life, and occupational fatigue is one of the negative consequences of it. Now, if in the work environment, the amount of exposure of people to stressful factors, such as work pressure and other job demands beyond their capacity increases, or if people's control over the way they perform tasks and tasks decreases, this will increase the intensity of fatigue (Rahimian Aghdam. et al., 2020) and as a result, people's productivity decreases and job performance becomes low.

On the other hand, researchers' findings indicate that job fatigue is not unrelated to job stress, and increasing job stress has led to increased fatigue (Najafi Qazalcheh et al., 2014). It has also been reported that creating a context for the occurrence of positive emotions in teachers and training ways to deal with negative perfectionism can lead to reducing fatigue in teachers (Hejazi & Hashemi, 2020).

In addition, in the field of primary school teaching, it should be said that due to the textbook contents and the limited time for teaching them, teachers are under a lot of pressure to cover them. This problem has been reported in many investigations (Kalb Ali, 2021; Khaghani, 2021; Khezri et al., 2022). Besides, the high number of students in the classroom and paying attention to the needs of all of them makes teachers exhausted. The reports obtained from research also confirm this issue (Ahadi', 2021; Khazaei & Abdi, 2020). However, research conducted in the field of teachers' careers has not focused on job fatigue and this issue has been neglected so for to the best of the researcher's knowledge. Also, field investigations indicate that the qualitative evaluation in the primary schools has greatly increased the workload of the teachers and has caused dissatisfaction, lack of concentration of the teachers in the teaching process, job fatigue and their disinterest in the primary education, which has caused many requests from primary teachers to leave this course and teach in secondary schools. Consequently, there is lack of interest in a large number of teachers, and perhaps the reason for that is high work pressure, lack of support from officials, low salaries, etc. As a result, the country's education system is negatively affected. Thus, in the current research, effort is made to analyze and report the factors affecting job fatigue, and to present a model for reducing job fatigue among primary school teachers in the hope that the prevailing research gap in the field of effective teachers, especially primary school teachers, will be resolved. Hence, the following research question was proposed:

- What are the factors affecting job fatigue in primary school teachers?

2. Methodology

The research instrument for collecting data in the qualitative phase was semi-structured interviews and literature review. In order to review the documents, a collection of reliable articles published inside and outside the country in the field of job fatigue in the last few years were scrutinized (for articles inside the country, reliable databases such as the database of the Scientific Information Center of Academic Jihad Research Institute of Humanities and Cultural Studies, Database of Publications Country, the database of Noor specialized magazines, the specialized publisher of Iranian conferences, and for international articles, reliable databases such as Google Scholar, Scopus, Springer, Science Hub, and Science Direct). For the purpose of the interview, a initial questions were asked from the interviewees, and then, if necessary, other questions were asked based on the participants' responses to enrich the interview data (The total number of participants was 16 people (10 women and 6 men) with an average age of 38.81±8.72, with 13.25±9.77 years of experience). Their education was bachelor's, master's and doctorate. Also, each interview usually lasted between 30 and 45 minutes). After the completion of each interview, it was transcribed and the coding of each interview was done at the same time and continued until theoretical saturation. After saturation, a list of components was prepared, and after obtaining the components related to the job fatigue of primary school teachers, which were obtained as a result of coding the interviews and reviewing the data, the

initial themes emerged following the procedures proposed by Strauss and Corbin (1998); causal, contextual, intervention, strategies and consequences.

Then, based on those themes (paradigm element was considered as a theme), factors (each main code was considered as a factor) and components (each open code was considered as a component, which became a category when making the checklist) were identified as effective on job fatigue. Finally, using open codes, a preliminary checklist of components was prepared and provided to experts to express their opinions about each component. In this section, the opinions of experts were applied to adjust or modify the according to what was happening in practice regarding primary school teachers in the country. Data collection in the quantitative phase was also done based on the qualitative findings consisting open ended questions and answers were arranged using 7-point Likert scale.

More precisely, the scale was designed following the analysis of qualitative data and specific quotes from the participants and the codes created by the researcher using the instructions and guidelines for compiling the Likert scale (Delaware, 2012) and the response range was also considered by the specialists in a 7-point Likert scale from completely disagree to completely agree. In order to check the validity in the qualitative phase of the study, 4-part design of Guba and Lincoln (1994), which includes Credibility, Transferability, Confirmability and Dependability was used for the scientific validity of the research (Danaifard and Mozafari, 2008as cited in Yekta and Shafiabadi, 2021). In order to check the validity of the instrument made in the quantitative section, the common methods available in the classical theory of measurement (content validity by calculating CVI and CVR and construct validity (exploratory and confirmatory factor analysis)) were used. In order to ensure the reliability in the qualitative phase, which indicates the consistency of the research findings, Holsti's Coefficient of Reliability was used.

3. Results and Discussion

In order to obtain the items of the scale, we reviewed the documents and interviewed the experts, as a result of which 51 components were identified, based on which the items were designed and the initial pool of items which included 81 items were prepared.

In order to design the items, it was necessary to distribute a number of items with a verb or negative content among the items with a verb or positive content randomly or one in between so that the respondent was forced to think about the item when answering. This way of adjusting the item is called the adjustment of appropriate (favorable or positive) and inappropriate (unfavorable or negative) expressions (Delavar, 2012) and this way it is possible to prevent the responses stemming from inattention or eye fatigue to some extent. Next, in order to check the validity, the content validity was used by asking the opinion of 10 experts who were the members of the expert panel, and in line with that, the content validity index (CVR) and the content validity index (CVI) were calculated.

Table 1. *Calculated pool of CVR and CVI items and indices*

Item	CVR	CVI	decision	Item	CVR	CVI	decision	Item	CVR	CVI	decision
1	0.6	<0.7	Rejected	2	0.8	>0.7	Accepted	3	1.0	>0.7	Accepted
4	1.0	>0.7	Accepted	5	-0.6	<0.7	Rejected	6	0.4	<0.7	Rejected
7	1.0	>0.7	Accepted	8	1.0	>0.7	Accepted	9	1.0	>0.7	Accepted
10	1.0	>0.7	Accepted	11	0.6	<0.7	Rejected	12	1.0	>0.7	Accepted
13	1.0	>0.7	Accepted	14	1.0	>0.7	Accepted	15	1.0	>0.7	Accepted
16	0.6	<0.7	Rejected	17	0.4	<0.7	Rejected	18	1.0	>0.7	Accepted
19	1.0	>0.7	Accepted	20	0.8	>0.7	Accepted	21	0.8	>0.7	Accepted
22	1.0	>0.7	Accepted	23	1.0	>0.7	Accepted	24	0.8	>0.7	Accepted
25	1.0	>0.7	Accepted	26	0.8	>0.7	Accepted	27	0.8	>0.7	Accepted
28	0.6	<0.7	Rejected	29	0.2	<0.7	Rejected	30	0.8	>0.7	Accepted
31	0.6	<0.7	Rejected	32	0.0	<0.7	Rejected	33	-1.0	<0.7	Rejected
34	0.8	>0.7	Accepted	35	0.4	<0.7	Rejected	36	0.8	>0.7	Accepted
37	0.2	<0.7	Rejected	38	0.2	<0.7	Rejected	39	-1.0	<0.7	Rejected
40	1.0	>0.7	Accepted	41	1.0	>0.7	Accepted	42	1.0	>0.7	Accepted
43	0.0	<0.7	Rejected	44	0.0	<0.7	Rejected	45	0.0	<0.7	Rejected
46	0.0	<0.7	Rejected	47	0.0	<0.7	Rejected	48	0.6	<0.7	Rejected

Table 1. *Calculated pool of CVR and CVI items and indices*

Item	CVR	CVI	decision	Item	CVR	CVI	decision	Item	CVR	CVI	decision
49	0.0	<0.7	Rejected	50	1.0	>0.7	Accepted	51	0.8	>0.7	Accepted
52	1.0	>0.7	Accepted	53	1.0	>0.7	Accepted	54	0.4	<0.7	Rejected
55	0.8	>0.7	Accepted	56	1.0	>0.7	Accepted	57	1.0	>0.7	Accepted
58	0.8	>0.7	Accepted	59	0.8	>0.7	Accepted	60	1.0	>0.7	Accepted
61	0.6	<0.7	Rejected	62	1.0	>0.7	Accepted	63	0.8	>0.7	Accepted
64	0.0	<0.7	Rejected	65	0.8	>0.7	Accepted	66	0.8	>0.7	Accepted
67	1.0	>0.7	Accepted	68	0.8	>0.7	Accepted	69	0.4	<0.7	Rejected
70	0.0	<0.7	Rejected	71	0.0	<0.7	Rejected	72	1.0	>0.7	Accepted
73	1.0	>0.7	Accepted	74	1.0	>0.7	Accepted	75	0.8	>0.7	Accepted
76	1.0	>0.7	Accepted	77	1.0	>0.7	Accepted	78	0.2	<0.7	Rejected
79	0.8	>0.7	Accepted	80	1.0	>0.7	Accepted	81	1.0	>0.7	Accepted

According to table 1, after calculating CVR and CVI, 29 items were removed from the total of 81 items and the remaining 52 items entered the next stage of the research. In fact, these 52 items had acceptable content validity. In order to enter these items into the next stage of the research, their numbering was rearranged (from number 1 to number 52). After obtaining the final form of the items (52-item form), the response range was determined based on the multi-degree Likert scale. In fact, the structure of 52 items, which was the result of the qualitative section, was placed under the quantitative section, and the qualitative and the quantitative phases were combined. At this stage, in order to prevent data loss, it was decided to use a 7-point Likert scale from completely disagree (score 1) to completely agree (score 7). According to the content of the items, the items with verbs or negative content were scored inversely.

Preliminary administration of the items in a random sample of respondents

At this stage, considering that the form had 52 items, one person was considered as a sample for each item, and by applying a 20% possible drop in the sample, finally 62 people from the target group (primary school teachers) were asked to Participate in the research. Therefore, the initial form of the questionnaire was provided to them so that they could comment on the clarity of the items and the recognition of ambiguous items. At this stage, out of a total of 62 people, 57 people participated and the return rate of the form was 91.94%.

Determining the reliability of the scale

In order to check the reliability of the final 52 items, the method of determining the internal consistency using Cronbach's alpha coefficient was used. Cronbach's alpha represents the fit of a group of items that measure a construct. At this stage, in order to check the internal consistency of the selected items (reliability), Cronbach's alpha coefficient was checked and its result is presented in table 2.

Table 2. *Item-Total Statistics*

Item	Scale Mean if Item Deleted	Cronbach's Alpha if Item Deleted	Item	Scale Mean if Item Deleted	Cronbach's Alpha if Item Deleted
1	0.543	0.943	2	0.589	0.942
3	0.734	0.941	4	-0.073	0.946
5	0.643	0.942	6	0.617	0.943
7	0.563	0.943	8	0.607	0.942
9	0.114	0.945	10	0.388	0.944
11	0.598	0.943	12	0.732	0.942
13	0.691	0.942	14	0.350	0.944
15	0.669	0.942	16	0.591	0.943
17	0.534	0.943	18	0.760	0.941
19	0.525	0.943	20	0.752	0.941
21	0.347	0.944	22	0.704	0.942
23	0.420	0.944	24	0.532	0.943
25	0.619	0.943	26	0.522	0.943
27	0.471	0.944	28	0.553	0.943
29	0.496	0.943	30	-0.087	0.946

Table 2. *Item-Total Statistics*

Item	Scale Mean if Item Deleted	Cronbach's Alpha if Item Deleted	Item	Scale Mean if Item Deleted	Cronbach's Alpha if Item Deleted
31	0.051	0.947	32	0.389	0.944
33	0.234	0.946	34	0.794	0.941
35	0.376	0.944	36	0.762	0.941
37	0.601	0.942	38	0.375	0.944
39	0.139	0.945	40	0.314	0.944
41	-0.084	0.947	42	0.675	0.943
43	0.599	0.943	44	0.346	0.944
45	0.673	0.942	46	0.734	0.942
47	0.864	0.942	48	0.633	0.942
49	0.650	0.943	50	0.589	0.943
51	0.620	0.942	52	0.632	0.943

According to table 2, except items number 4, 9, 30, 31, 33, 39 and 41, other items had a correlation higher than 0.3. Therefore, all the items, except the mentioned items, had a favorable correlation with the total score of the instrument. Therefore, these 7 items were removed from the form. The value of Cronbach's alpha for the whole scale before removing the mentioned items was 0.94 and after removing it was 0.96 (higher than 0.7). Therefore, these 45 items entered the next stage of the research.

Checking validity and reliability in the preliminary stage (EFA)

At this stage, 5 people were considered as a sample for each item (in total 225 people). Also, 20 percent probability of sample drop was considered; Therefore, 270 samples were included in the end. After distributing 270 forms at the sample level, 251 people participated (return rate 92.96 %), among which 21 unhealthy (incomplete) forms were removed from the sample size, and analysis were performed on the remaining 230 forms. Cronbach's alpha coefficient was used to check the reliability, and as a result, with the exception of item number 21 (The text of the item: "*The nativeness of the teacher does not affect the level of her/his job fatigue.*" r: 0.2), the correlation was higher than 0.3. considering that in the presence of this item, the overall reliability was 0.932, and in the case of its removal, the overall reliability changed only 0.001 and it changed to 0.933. Due to the insignificant changes and to make a decision regarding the deletion of this item It was preferred to remove the item if the factor loading was less than 0.3. Therefore, EFA was performed on 45 items. It should be mentioned that according to the theoretical foundations of the factors that make up job fatigue, independent work fatigue has been considered, hence the selected rotation in all stages has been an orthogonal rotation. 4 stages of exploratory factor analysis were performed to identify valid factors and finally the number of valid factors was 4 factors which explained 51.08% of the total variance. The matrix of components after rotation is presented (Table 3).

Table 3. *Factor load of each item after rotation*

Code	Factor	Item	Factor load
a2		Interest in students is effective in teacher job fatigue.	0.366
a19		A teacher's physical fitness plays a role in her/his job fatigue.	0.628
a26		The presence of a happy atmosphere in the school moderates the teacher's job fatigue.	0.729
a28	Managerial-organizational α: 0.87	The volume of textbooks affects the level of teacher's job fatigue.	0.392
a30		Increasing the break time leads to the adjustment of the job fatigue of the teachers.	0.470
a33		Crowded classroom makes the teacher tired.	0.790
a34		Planning is a good solution to overcome job fatigue.	0.639
a36		Good sleep is a solution that is suitable for eliminating job fatigue.	0.744
a37		A teacher's creativity and initiative depend on the level of her/his job fatigue.	0.604
a42		The teacher's job fatigue has an effect on the level of her/his attention to the teaching method.	0.596
a43		The teacher's more attention to the student and her/his needs depends on the teacher's fatigue level.	0.605
a45		Teacher's job fatigue affects his/her use of various teaching methods.	0.792

Table 3. *Factor load of each item after rotation*

Code	Factor	Item	Factor load
a1		Interest in teaching has no effect on teacher's job fatigue.	0.576
a3		Interest in the teaching profession does not play a role in teacher's job fatigue.	0.767
a4		A teacher's sense of worth has nothing to do with her/his job fatigue.	0.621
a6		A teacher's sense of effectiveness does not play a role in the occurrence of her/his job fatigue.	0.677
a7		A teacher's job satisfaction is not related to her/his job fatigue.	0.512
a8	Psychological α: 0.88	The ways of dealing with the teacher have no effect on the level of her/his job fatigue.	0.572
a10		The principal's companionship with the teacher does not play a role in the teacher's job fatigue.	0.392
a11		Job fatigue affects the teacher's motivation.	0.674
a12		Teacher tolerance is not affected by job fatigue.	0.505
a13		Job fatigue has an effect on the aggressive behavior of teachers.	0.749
a15		Job fatigue has an effect on the teacher's enthusiasm for teaching.	0.369
a16		The level of teacher's job fatigue is not related to student's satisfaction.	0.385
a18		The degree of job fatigue doesn't affect the teacher's work-life balance.	0.576
a27		The teacher's career history has an effect on her/his job fatigue.	0.537
a9		The degree of empathy of the principal with the teacher is important in the occurrence of teacher job fatigue.	0.695
a17		If job fatigue is removed, we will witness the improvement of teacher's and student's vitality.	0.815
a20	Behavioral-organizational α: 0.83	Assessing needs and equipping schools with laboratory equipment has nothing to do with teacher job fatigue.	0.463
a21		The nativeness of the teacher doesn't affect the level of her/her job fatigue.	0.424
a22		Joking with students and colleagues has no effect on the teacher's job fatigue.	0.565
a23		Appreciation of teachers with motivation has an effect on the adjustment of their job fatigue.	0.805
a24		Recognition of hardworking teachers will moderate their job fatigue.	0.844
a25		Occasional rewards and benefits have no effect on teacher's job fatigue.	0.620
a5		The teacher's sense of usefulness is important in her/his job fatigue.	0.342
a14		Teacher's mental health isn't affected by job fatigue.	0.391
a29		Providing comfort facilities to teachers isn't effective in the job fatigue of teachers.	0.347
a31		Increasing the break time of teachers between classes isn't beneficial in the level of job fatigue of teachers.	0.526
a32	educational-psychological α: 0.82	Allocating commuting expenses to teachers is important in reducing their job fatigue.	0.543
a35		Timely rest can relieve the teacher's job fatigue.	0.459
a38		The efficiency of teachers is affected by their job fatigue.	0.543
a39		The quality of teachers' teaching has nothing to do with their job fatigue.	0.484
a40		The student's understanding is influenced by the teacher's job fatigue.	0.396
a41		Student's academic progress has nothing to do with teacher's job fatigue.	0.547
a44		A teacher's job fatigue doesn't play a role in her/his attention to the individual differences of students.	0.311

As it is evident in the table 3, the factor load of all the items in their respective factor was higher than 0.3. Item number 21 also had a factor load of 0.4; Therefore, the items were not removed from the form and it was decided to keep it. The reliability value of each factor was also checked at this stage using Cronbach's alpha coefficient, which was found to be higher than 0.7.

Investigating the construct validity of the instrument using CFA

After forming the initial structure of the scale, we performed a confirmatory analysis (on the data collected in the final stage;220 samples) to ensure that the structure of the model was well developed and fit. At this stage, 213 forms were returned and the return rate was 96.82%. Among these 213 forms, 13 forms were incomplete, which were removed from the total forms and analyses were performed on the remaining 200 forms. To carry out this part of the research, Lisrel software version 9.3 was used, as a result of which the standardized values for all the items, separated by the relevant factors, were 0.3 and higher. T values were all higher than 1.96.

Table 4. *Model fitness indices*

Indices	value obtained	Acceptable value
CMIN	882.076	<0.08
p	0.001	<0.10
RMSEA	0.074	≥0.90
SRMR	0.0643	≥0.90
GFI	0.918	≥0.90
CFI	0.950	≥0.90
IFI	0.951	≥0.90
NFI	0.924	≥0.90
NNFI	0.864	≥0.90
CMIN/DF	1.05	<3.00

According to table 4, the fitness indices, except for two NNFI indices, showed favorable values. If at least 3 fit indices are within the acceptable range and on the other hand three important indices of x2/df, RMSEA and SRMR are within the standard range, the model fit can be confirmed. Therefore, the 4-factor model developed as a result of EFA was confirmed in the first-order CFA.

Reliability estimation

After confirming the construct validity, the reliability of the scale was checked using Cronbach's alpha coefficient and composite reliability (CR). Convergent validity was also investigated by calculating the average variance extracted (AVE) separately for each factor and the total score. Finally, the findings were reported in Table 5.

Table 5. *Descriptive indices, correlation value, Cronbach's alpha, CR and AVE*

Factor	M	SD	Min	Max	1	2	3	4	Total	α	CR	AVE
Managerial-organizational	66.62	11.49	19	84	1					0.88	0.95	0.59
Psychological	73.74	14.64	42	98	0.47**	1				0.87	0.94	0.68
Behavioral-organizational	46.87	6.79	19	56	0.45**	0.35**	1			0.82	0.92	0.55
educational-psychological	60.79	9.54	41	77	0.42**	0.61**	0.51**	1		0.81	0.92	0.57
Total scale	248.02	33.33	189	315	0.76**	0.85**	0.66**	0.80**	1	0.93	0.96	0.62

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

In Table 5, the total alpha value of each factor and the total alpha value of the scale are reported. As can be seen, alpha and CR values are acceptable values (above 0.7) and AVE values for all factors and for the total score are above 0.5. AVE value higher than 0.5 indicates favorable convergent validity of a scale. It should be noted that if the value of CR is greater than 0.7, it indicates the convergent validity of the construct. Therefore, the reliability of all 4 factors and the entire scale was confirmed.

In addition, the descriptive indices of all 4 factors and the total score of the scale are also reported and according to the table, organizational management factor has an average of 66.620 ± 11.489, psychological factor 73.745 ± 14.641, behavioral-organizational factor 788. 46.870 ± 6, educational-psychological factor 60.785 ± 9.540 and the total scale has an average of 248.020 ± 33.327 with minimum and maximum 19 and 84, respectively; 42 and 98; 19 and 56; 41 and 77; They were 189 and 315. The skewness and Kurtosis of all 4 factors and the whole scale were between +2 and -2, and the Z-statistic in the Kolmogorov-Smirnov test for all 4 factors and the total score had a significance level higher than 0.05, which indicated the normality of the data distribution. Also, among the 4 factors affecting job fatigue, the educational-psychological factor with a T-value of 11.80 and a standard load value of 0.81 took the first place, followed by psychological, behavioral-organizational and managerial factors. Organization ranked second to fourth with T value and standard load value, 10.51 and 0.73, respectively; 8/45, 0/60; and 8.30, they allocated 0.60.

4. Conclusion

Based on the results of the research and according the emerged components, the number of 81 items was set. Then, in order to check validity, content validity was used by asking the opinions of 10 experts who were members of the expert panel, and CVR and CVI were calculated accordingly. After calculating the CVR and CVI index, 29 items were removed from the total of 81 items and the remaining 52 items entered the next stage of the research. Then, the response range was determined based on the multi-degree Likert scale. In fact, the structure of 52 items, which was the result of the qualitative phase, was considered as the foundation of the quantitative phase, and thus the findings of the qualitative phase was combined with the quantitative phase. In order to check the reliability, the method of determining the internal consistency with the application of Cronbach's alpha coefficient was used, as a result of which, except items 4, 9, 30, 31, 33, 39 and 41, the other items had a correlation higher than 0.3. Therefore, all the items, except the mentioned items, had a favorable correlation with the total score of the instrument. Therefore, these 7 items were removed from the form. The value of Cronbach's alpha for the whole scale before removing the mentioned items was 0.94 and after removing it was 0.96 (higher than 0.7). Therefore, the questionnaire for measuring the level of job fatigue of primary school teachers composed of 45 items covering items such as interest in teaching, students and teaching profession; feeling valuable, useful and effective; the level of job satisfaction; methods of dealing with the teacher; the degree of empathy and companionship of the principal with the teacher; teacher's motivation and tolerance; aggressive behavior; mental health; enthusiasm for teaching; satisfaction of the students; the vitality of the teacher and the student; work-life balance and physical fitness; assessing needs and equipping schools with laboratory equipment; the nativeness of the teacher; joking with students and colleagues; recognition of motivated and hardworking teachers; occasional rewards and benefits; the existence of a happy atmosphere in the school; teacher's career history; the volume of textbooks; providing comfort facilities to teachers; increasing the break time; Increasing teachers' break time between classes; allocating travel expenses to teachers; crowded class; planning; timely rest and optimal sleep; teacher's creativity and initiative; the efficiency and quality of teacher's teaching; the student's income; student's academic progress; teacher's attention to methodology and to the student and his needs and his individual differences; and the use of various teaching methods.

Cronbach's alpha coefficient was used to check the validity, and as a result, with the exception of item number 21; they had a correlation higher than 0.3 and the value of Cronbach's alpha coefficient was higher than 0.7, which indicated the validity of the instrument. In order to check the validity of the instrument, construct validity was used using factor analysis in two levels of exploratory and confirmatory factor analysis, and as a result of the exploratory factor analysis, 4 factors were found to be valid. Therefore, the initial structure of the questionnaire was formed in the form of 4 factors that had acceptable validity and reliability. After forming the initial structure of the scale, a confirmatory analysis was conducted to ensure that the structure of the developed model had sufficient fits. The achievement of this section also indicated that the standard load and T values of all items in their respective factors were higher than 0.3 and 1.96, respectively, and the fit indices showed favorable values, except the two NNFI indices. Therefore, the 4-factor model emerged. After confirming the construct validity, the reliability of the scale was checked using Cronbach's alpha coefficient and composite reliability (CR). Convergent validity was also investigated by calculating the average variance extracted (AVE) separately for each factor and the total score. The result indicated that alpha and CR values were acceptable values (higher than 0.7) and AVE values for all factors and for the total score were higher than 0.5. Therefore, the reliability of all 4 factors and the whole scale and its validity were also favorable and approved.

To interpret the findings of the study, it should be said that in any society, education provides the basis for individual and social growth and development. More precisely, it is education that causes the improvement of the individual and society or the deterioration of individual and the society. On the other hand, due to the fact that the formation of the personality and development of a person is achieved more in the elementary school, this stage is the most

important level in all education systems in the world. The elementary school plays an important role in the development of the concepts and meanings of the things that the child faces in his daily life. This level is the continuation of the cognitive, biological and social development of the child, which is founded in the family. It is also a period in which a child is provided with a suitable opportunity and situation for education, growth and learning the correct way of communicating with others, and the talents of each child gradually blossoms. Since the condition for entering the next academic stage is the elementary level, investing in this level and paying attention to its improvement will provide the basis for the success of students in the following academic stages and reduce their academic and educational problems (Firouzkamishani, 2014). Therefore, it is necessary to pay attention to the psychological, environmental, behavioral and cultural factors of the teacher who plays the main role in the education of students in the school. According to the questionnaire developed in the current research, the several factors influence job fatigue, and if suitable solutions are provided, job fatigue can be reduced I teachers, and as a result, improve the teacher's creativity and initiative; help them pay more attention to the student and his needs; increase teacher motivation; use various teaching methods; increase of the positive feelings in teacher and the student and finally progress student's academic success because the teachers have the main role in the education and training of the people of the society and influence them with their speech and behavior as a role model. One of the most important characteristics that a teacher should have is to recognize the talents and abilities of students and create motivation and interest in them by using different methods so that they can face the challenges and sort them during their academic life (Tavakoli et al., 2021); Therefore, the importance of the factors identified in the current research and the relationship between them becomes more and more evident.

A capable teacher can discover their students' talents and abilities through the knowledge she gets from students and by using different methods. She/he can increase the motivation of the students to learn (Tavakoli et al., 2021). This can lead the teacher to pay more attention to the student and her/his needs. The teacher should create a positive and hopeful atmosphere in the classroom and increase the students' motivation for academic progress. He/she should create a dynamic and active environment so that all students can participate in the class discussions and activities and move away from the traditional and teacher-centered method. Students' participation in class activities will significantly increase their motivation, but at the same time, the teacher should not allow students to get distracted and should have sufficient authority in class management (Tavakoli et al., 2021). Teaching is a very stressful job and teachers suffer from more mental health problems compared to other jobs (Biniyaz et al., 2023The result of the current research also confirms this issue, and in addition, studies have shown some specific psychosocial stressors in work conditions such as extra work load, time limits and long working hours (Garcia-Arroyo & Segovia, 2019), lack of budget, inadequacy role, role overload (Sohn et al., 2011), public pressure (Miller et al., 2011), decreased autonomy and control (Weinfeld et al., 2003) and excessive administrative work (Miller et al., 2011) have identified that I the findings of the current research supports them. Considering that elementary education is a profession that is responsible for the education of young children in a classroom environment, and on the other hand; occupational fatigue is a state of reduced skill, work performance and reduced strength or perseverance to do work. If a person feels it and is forced to continue working, the problems will increase and this state of fatigue disrupts the flow of work to a great extent and mostly affects him negatively (Laksmitavati et al., 2022).

In conclusion, according to the findings of the present research, it can be concluded that the attention of the educationists in schools to factors such as psychological, behavioral, organizational, environmental, physical and health and the use of suitable solutions In this area can be useful in order to increase the level of job satisfaction of the teacher and the contentment of the student as well as the academic progress of the students as the future capital of the country.

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Appendix

Job Fatigue Scale (JFS)

No.	Item
1	Interest in teaching has no effect on teacher's job fatigue.
2	Interest in students is effective in teacher job fatigue.
3	Interest in the teaching profession does not play a role in teacher's job fatigue.
4	A teacher's sense of worth has nothing to do with her/his job fatigue.
5	The teacher's sense of usefulness is important in her/his job fatigue.
6	A teacher's sense of effectiveness does not play a role in the occurrence of her/his job fatigue.
7	A teacher's job satisfaction is not related to her/his job fatigue.
8	The ways of dealing with the teacher have no effect on the level of her/his job fatigue.
9	The degree of empathy of the principal with the teacher is important in the occurrence of teacher job fatigue.
10	The principal's companionship with the teacher does not play a role in the teacher's job fatigue.
11	Job fatigue affects the teacher's motivation.
12	Teacher tolerance is not affected by job fatigue.
13	Job fatigue has an effect on the aggressive behavior of teachers.
14	Teacher's mental health isn't affected by job fatigue.
15	Job fatigue has an effect on the teacher's enthusiasm for teaching.
16	The level of teacher's job fatigue is not related to student's satisfaction.
17	If job fatigue is removed, we will witness the improvement of teacher's and student's vitality.
18	The degree of job fatigue doesn't affect the teacher's work-life balance.
19	A teacher's physical fitness plays a role in her/his job fatigue.
20	Assessing needs and equipping schools with laboratory equipment has nothing to do with teacher job fatigue.
21	The nativeness of the teacher doesn't affect the level of her/her job fatigue.
22	Joking with students and colleagues has no effect on the teacher's job fatigue.
23	Appreciation of teachers with motivation has an effect on the adjustment of their job fatigue.
24	Recognition of hardworking teachers will moderate their job fatigue.
25	Occasional rewards and benefits have no effect on teacher's job fatigue.
26	The presence of a happy atmosphere in the school moderates the teacher's job fatigue.
27	The teacher's career history has an effect on her/his job fatigue.
28	The volume of textbooks affects the level of teacher's job fatigue.
29	Providing comfort facilities to teachers isn't effective in the job fatigue of teachers.
30	Increasing the break time leads to the adjustment of the job fatigue of the teachers.
31	Increasing the break time of teachers between classes isn't beneficial in the level of job fatigue of teachers.
32	Allocating commuting expenses to teachers is important in reducing their job fatigue.
33	Crowded classroom makes the teacher tired.
34	Planning is a good solution to overcome job fatigue.
35	Timely rest can relieve the teacher's job fatigue.
36	Good sleep is a solution that is suitable for eliminating job fatigue.
37	A teacher's creativity and initiative depend on the level of her/his job fatigue.
38	The efficiency of teachers is affected by their job fatigue.
39	The quality of teachers' teaching has nothing to do with their job fatigue.
40	The student's understanding is influenced by the teacher's job fatigue.
41	Student's academic progress has nothing to do with teacher's job fatigue.
42	The teacher's job fatigue has an effect on the level of her/his attention to the teaching method.
43	The teacher's more attention to the student and her/his needs depends on the teacher's fatigue level.
44	A teacher's job fatigue doesn't play a role in her/his attention to the individual differences of students.
45	Teacher's job fatigue affects his/her use of various teaching methods.

Answer Key: Strongly disagree (1); Disagree (2); Somewhat disagree (3); No idea (4); Somehow agree (5); Agree (6); Strongly agree (7)

The comparative impact of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement

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Abstract

This study examined the differences between the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement. The participants comprised 63 Iranian young EFL learners within the age range of 9 to 12 years old. These 63 learners were selected out of an initial number of 100 male and female EFL learners at the intermediate level based on their performance on a Flyers test. The 63 selected participants were divided into two intact groups consisting of 31 learners in the opinion-gap task experimental group and 32 learners in the reasoning-gap experimental group. Then, an engagement checklist was used by two raters in the two groups as pretest. After that, for ten sessions each lasting for 90 minutes, in one of the groups, the researcher carried out opinion-gap tasks while reasoning gap tasks were implemented in another experimental group. Upon finishing the treatment, the two raters used exactly the same checklist and obtained the posttest engagement scores. The analysis of the data through the parametric test of paired sample t-test indicated that both task types significantly impacted young EFL learners' classroom engagement. Besides, the results of Mann-Whitney U Test revealed that there was no significant difference between the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement. Based on the results, EFL teachers are recommended to use both task types to enhance EFL learners' classroom engagement.

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1. Introduction

Learning engagement involves learners' increased attention, focus, and participation in learning tasks, which aim to achieve a stated goal by making both personal (e.g., cognitive, affective, behavioral factors) and interpersonal efforts (e.g., social and affective factors) (Linnenbrink-Garcia et al., 2011). Learners' engagement has proved to be an effective and important prerequisite for being able to learn English in English as a Foreign Language (EFL) classes (Dornyei, 2019; Oga-Baldwin, 2019). EFL instructors want learners to be as highly engaged as possible when it comes to learning activities which involve the four main language skills (i.e., speaking, writing, listening, and reading) as well as sub-skills, including grammar and vocabulary.

On the other hand, with the widespread application of task-based language teaching (TBLT) one issue which is worth investigation is how different types of tasks may affect EFL learners' learning engagement. Two of the important types of tasks are reasoning gap tasks and opinion gap tasks. The review of literature reveals that the teaching and learning of English as a Second Language (ESL) has undergone changes driven by the Task-based Learning and Teaching (TBLT) approaches (Mvundura & Svongoro, 2021). These changes have shifted the focus away from gaining mastery over linguistic forms in traditional classes (e.g., grammar and morphology) to putting more emphasis on English as a tool for communicative competence and negotiation of meaning (Baralt & Gómez, 2017).

Although several investigations have been carried out in regard to opinion-gap tasks and reasoning gap tasks (Dadras & Erfani, 2018; Namaziandost et al., 2019; Soleimani, & Vahid Dastjerdi, 2021; Zand-Moghadam & Samani, 2021) as well as engagement (Kazemi et al., 2021; Han et al., 2021; Jiang & Zhang, 2021; Nakamura et al., 2020; Sadoughi & Hejazi, 2021), the scope of the effects of different task types on learning engagement is quite under-explored to the best of the researcher's knowledge. More specifically, the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement has not been addressed by previous research. Thus, the current study was an attempt to examine the significant difference (if any) between the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement.

In line with the objectives stated above, the following research questions were formulated:
RQ1: Do reasoning gap tasks have any significant effect on young EFL learners' classroom engagement?
QQ2: Do opinion gap tasks have any significant effect on young EFL learners' classroom engagement?
RQ3: Is there any significant difference between the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement?
Besides, considering the research questions, the following null hypotheses were stated:
H01: Reasoning gap tasks have no significant effect on young EFL learners' classroom engagement.
H02: Opinion gap tasks have no significant effect on young EFL learners' classroom engagement?
H03: There is no significant difference between the effect of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement.

2. Review of the Related Literature

Classroom engagement is of enormous importance as it serves as a multidimensional pathway, making a connection between learners' motivational states with their intended educational outcomes (Skinner, Kindermann, Connell, & Wellborn, 2009; Skinner, Kindermann, & Furrer, 2009).These outcomes include academic progress and extent of achievement (Hughes, Wu, Kwok, Villarreal, & Johnson, 2012; Jang et al., 2012; Ladd & Dinella, 2009; Reyes, Brackett, Rivers, White, & Salovey, 2012; Skinner, Zimmer-Gembeck, & Connell, 1998). Taking part in an

effortful, strategic, and proactive manner, learners have at their disposal multiple effective pathways to turn their constructive motivational states (e.g., demands, goals) into more effective and developed skills, the attainment of educational objectives, and the achievement of academic progress.

As pointed out by Christenson et al. (2012), engagement has to do with the extent to which students take part in learning process and is comprised of four dimensions: behavior, emotion, cognition, and agency (Christenson et al., 2012; Fredricks et al., 2004; Reeve, 2013; Reeve & Tseng, 2011). As for behavioral engagement, the learners are assessed on how attentive and persistent they are in pursuing a learning activity (Skinner et al., 2009). Emotional engagement is concerned with how interested and optimistic the learners are when it comes to learning activity (Skinner et al., 2009). Cognitive engagement involves using effective strategies by learners in order to take part in the activity (Walker et al., 2006). Agentic engagement has to do with how active and involved students pursue their learning activity by referring to their needs and requirements (Reeve, 2013).

Learners' engagement has proved to be an effective and important prerequisite for being able to learn English in EFL classes (Oga-Baldwin, 2019). EFL instructors want learners to be as highly engaged as possible when it comes to learning activities which involve the four main language skills (i.e., speaking, writing, listening, and reading) as well as sub-skills, including grammar and vocabulary. Due to the importance of this construct, it has been subject to very recent investigations both in the Iranian context of English language teaching (ELT) (Kazemi et al., 2021; Sadoughi & Hejazi, 2021) and the international context of ELT (Han et al., 2021; Jiang & Zhang, 2021; Nakamura et al., 2020).

A review of previous investigations shows that a number of studies have investigated engagement in ELT context. For instance, Kazemi et al. (2021) demonstrated that dynamic assessment could boost participants' performance in a practical and effective way, not only in terms of reading performance but also in terms of motivating more classroom engagement among EFL learners. Sadoughi and Hejazi's (2021) findings revealed that perceived teacher support could directly and positively affect academic engagement. Additionally, positive emotions mediated the relationship between teacher support and academic engagement. Besides, Jiang and Zhang (2021) showed that the relationship of perceived social relatedness to agentic engagement was fully mediated by both mastery-approach and performance-approach goals. Nakamura et al. (2020) found that the constraint task condition had positive effects on all the cognitive engagement measures. Han et al.'s (2021) results indicated that behavioral engagement was positively related to involvement. Emotional engagement was positively related to student cohesiveness and negatively related to teacher support. Moreover, satisfaction was not related to any of the learning environment factors.

On the other hand, Prabhu (1987) argues that reasoning-gap tasks are concerned with extracting some new information from already available information using several processes, including inferencing, deduction, practical reasoning, or a perception of relationships or patterns. Opinion-gap tasks, however, have to do with specifying and expressing a personal priority, emotion, or attitude in a specific situation (Ellis, 2003). Both reasoning-gap and information-gap tasks can potentially push learners to engage in constructive cooperation as well as individual performances (Zand-Moghadam, & Samani, 2021).

Having said that, investigating task types in the realm of ELT has been the subject of some research. Rabbanifar and Mall-Amiri (2017) studied the effects of opinion-gap and reasoning-gap tasks on complexity, fluency, and accuracy of EFL learners' speaking. The findings revealed that reasoning-gap task had a significant impact on participants' speaking complexity and accuracy, with fluency not being influenced in comparison to opinion-gap tasks. Dadras and Erfani (2018) found that applying both the reasoning gap tasks and information gap tasks significantly affected the frequency of conversational strategies through negotiation. Namaziandost et al. (2019) showed that that information-gap tasks were more effective than

opinion-gap tasks and reasoning-gap tasks on EFL learners' speaking fluency. Further, Soleimani and Vahid Dastjerdi's (2021) findings revealed that both opinion-exchange and information gap tasks had significant effects on EFL learners' willingness to communicate (WTC). Moreover, it was revealed that opinion-exchange tasks had better effects on the enhancement of the participants' WTC. Zand-Moghadam and Samani's (2021) results indicated that TBLT had a positive effect on EFL learners' pragmatic competence. Besides, the information-gap task group outperformed the reasoning-gap, and opinion-gap task groups in terms of pragmatic production and metapragmatic awareness.

2. Methodology
2.1. Design
The present study adopted a quasi-experimental, pretest-posttest comparison design. The task type with two modalities was the independent variable and learners' engagement was the dependent variable. Language proficiency and learners' age range were control variables. Participants were selected from both genders. Thus, gender was not a control variable in the present study. There were no moderating variables in this study.

2.2. Participants
The participants in the current study were 63 young male and female learners at the intermediate level of language proficiency studying in a Language School in Tehran within the age range of 9 to 12, chosen through nonrandom convenience sampling. For obtaining the two homogeneous groups, a Flyers test was administered to 100 learners and 63 students whose scores fell within the range of one standard deviation above and below the mean were selected. Moreover, two MA holders in the field of TEFL with 10 years of experience teaching English to young learners assisted the researcher in rating the engagement checklist and the writing and speaking sections of the tests used in this study.

2.3. Instruments and Materials
a) Young Learners English (The Flyers Test): The Flyers test is developed by Cambridge English Language Assessment. It was utilized to have a homogeneous group of participants. This test is suitable for those who have an English proficiency equal to A2 on the Common European Framework of Reference (CEFR). To assure that the test was reliable for the purposes of the current study, the researcher checked the reliability index by running Cronbach's Alpha on the scores and the obtained reliability value was 0.74.

b) Engagement Checklist: To measure engagement in the present study, the checklist developed by Reeve (2013) was used. This checklist was used as an observation checklist yielding quantitative data. It is on a 7-point Likert scale ranging from Never (1), Not at all (2), Occasionally (3), Sometimes yes (4), Sometimes no (5), Frequently (6), and Always (7). Thus, the minimum number on the checklist is 11 and the maximum number is 77. Reeve (2013) established the validity of the instrument via exploratory factor analysis. Moreover, Reeve (2013) reported a reliability index of 0.82 for the whole checklist and reliability indices of 0.71, 0.73, 0.89, and 0.82 for Behavioral engagement, Emotional engagement, Cognitive engagement, and Agentic engagement components, respectively. In the current study, inter-rater reliability was used for establishing the consistency of the scores obtained using the checklist by two raters. Using Pearson correlation coefficient the raters' scores were calculated (0.81), which indicated a high level of consistency.

Project Textbook (Intermediate level): This is a five-level course book for young learners and the new edition authored by Hutchinson (Fourth Edition) combines all the aspects of the previous edition with some new aspects including new digital components, extra resources and more teacher support. In the context of the current study, two units from the fourth level, designed for the intermediate level of language proficiency, were covered.

2.4. Data Collection and Analysis Procedures

At first, 100 young EFL learners from a language school were selected. They were given a Flyers test and 63 learners were selected. The 63 selected learners were those whose scores fell within the range of one standard deviation above and below the mean. Following that, the 63 selected learners were divided into two groups consisting of 31 learners in the opinion gap experimental group and 32 learners in the reasoning-gap experimental group. In fact, the two groups stayed in their intact classes since it was not feasible for the researcher to change their class time. Then, the engagement checklist was used by two raters in the two groups as the pretest. To do so, each rater attended each class for three sessions and rated each individual student in the class subsequent to receiving training. As the focus of the present study was on learning engagement in general, during these three sessions, the learners in both groups were involved in doing regular activities based on the conventional syllabus of the language institute. For instance, during these sessions, the learners participated in pair work and group work speaking activities, did a writing task, carried out a reading activity, did some vocabulary practice, and grammar exercises. To this end, after three sessions, all the individual learners in each group attained an engagement score as pretest.

After that, for ten sessions, lasting for 90 minutes, in one of the groups, the researcher carried out opinion-gap tasks in line with Ellis (2003) while reasoning gap tasks were implemented in another experimental group in line with Prabhu (1987). The researcher was the teacher in both classes. During the implementation of the tasks, the teacher monitored learners' performance and provided guidance and help if necessary. Moreover, the teacher presented the tasks drawing on comprehension check and concept check questions to make sure that all the learners knew what they were expected to do. Additionally, the teacher encouraged learners' participation in the tasks via monitoring learners and spotting those who seemingly had problems. In case, the teacher felt that a learner was puzzled, she would ask some questions and provide guidance. With regard to opinion-gap tasks, learners were required to identify and articulate a personal preference, feeling, or attitude in response to a given situation. The main goal here was to elicit a range of opinions from the students. Besides, reasoning gap tasks were implemented in the second experimental group in line with Prabhu (1987). In these tasks, learners were required to derive some new information from given information through the processes of inferencing, deduction, practical reasoning, or a perception of relationships or patterns. As for error treatment, in both groups the teacher noted down their errors and after the learners finished the task, the teacher wrote them down on the board and the class corrected the errors collectively. If the learners failed to correct it the teacher offered direct help as the last resort.

Upon finishing the treatment, similar to the pretest, the two raters used exactly the same checklist and during three sessions obtained the posttest engagement scores. In the three post-treatment sessions in which the students' learning engagement was rated, the learners were involved in activities similar to their pretest sessions. Thus, similar to pretest the activities were performed in line with the conventional syllabus of the language institute covering all the language skills and components. It should be noted that the dependent variable of the current study was learning engagement in general and not learners' engagement with opinion-gap and reasoning gap tasks. To put it another way, it should be mentioned that since learning engagement was the dependent variable in this study and the study had a pretest, posttest design to examine the effects of treatment types on learning engagement, it was necessary to collect the data before and after the implementation of the treatment. In addition, the checklist was an engagement checklist and not an observation checklist. It is noteworthy that the language institute where the research was carried out was equipped with surveillance cameras. Thus, the researcher used the videos recorded during the class and used the recorded videos to rate the engagement of the learners. This way, the researcher and raters were able to neutralize the probable impact of observations' presence on participants' performance. To observe ethical

considerations, the researcher asked the manager of the language institute to obtain the consent of the learners' parents as they were young learners. In so doing, some of the parents were notified on the use of class videos as they came to pick up their children from classes. The rest were informed via phone. All parents gave their approval for the use of videos as they were told that the data would be used for educational purposes only. The whole treatment lasted 10 sessions with six other sessions being allocated to pretest and posttest.

To address the research questions in the present study, the researcher used both descriptive and inferential statistics. For descriptive statistics, means, standard deviations, and reliability measurement were used. As for inferential statistics, a one-way analysis of covariance (ANCOVA) was used. The prerequisites for running this parametric test were also put in place.

3. Results and Discussion

To analyze the data, initially, the descriptive statistics for the pretest and posttest learning engagement scores were obtained. Table 1 displays the descriptive statistics.

Table 1. *Descriptive Statistics for the Learning Engagement Pretest and Posttest Scores*

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
								Std.		Std.
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Error	Statistic	Error
Pre-Opinion	31	21.00	35.00	28.0968	3.56235	12.690	.090	.421	-.894	.821
Pre-Reasoning	32	24.00	35.00	30.2500	3.20282	10.258	-.355	.414	-.755	.809
Post Opinion	31	30.00	37.00	33.5484	1.84099	3.389	-.099	.421	-1.032	.821
Post Reasoning	32	28.00	42.00	35.0938	3.43003	11.765	.381	.414	-.334	.809
Valid N (listwise)	31									

As indicated in the above table, the means for the pretest scores of the opinion gap and reasoning gap groups were 28.09 and 30.25, respectively.

To check if each one of the task types significantly affected EFL students' learning engagement, two paired samples t-tests were run. Since, the skewness and kurtosis ratios for the pretest and posttest scores lay within the range of +/- 1.96, the normality assumption was met. Table 2 portrays the results of paired samples t-test between the pretest and posttest of the reasoning-gap group as well as the results of this statistical test for the pretest and posttest of the opinion-gap group.

Table 2. *Results of Paired Samples T-test for the Pretest and Posttest Scores of the Two Groups*

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Pre-Opinion - Post Opinion	-5.45161	2.94209	.52842	-6.53078	-4.37244	-10.31	30	.000
Pair 2	Pre-Reasoning - Post Reasoning	-4.84375	3.01726	.53338	-5.93159	-3.75591	-9.081	31	.000

As presented in the above table, the sig value for comparing the pretest and posttest scores of the reasoning-gap group equaled .00, which is lower than .001. Accordingly, it can be concluded that the reasoning-gap task has had a statistically significant impact on young EFL students' learning engagement. Hence, it can be concluded that the first null hypothesis was rejected.

Similarly, the sig value for comparing the pretest and posttest scores of the opinion-gap group equaled .00, which is lower than .001. Therefore, it can be concluded that the opinion-gap task has had a statistically significant impact on young EFL students' learning engagement. Therefore, the second null hypothesis was also rejected.

To address the third research question, the researcher decided to consider the pretest scores as a covariate and conduct an ANCOVA. Table 3 displays the descriptive statistics for the pretest (covariate) and posttest scores (dependent variable) of the two groups.

Table 3. *Descriptive Statistics for the Pretest (Covariate) and Posttest (Dependent Variable) Scores*

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
								Std.		Std.
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Error	Statistic	Error
Pre-both	63	21.00	35.00	29.1905	3.52803	12.447	-.177	.302	-.913	.595
Post-Both	63	28.00	42.00	34.3333	2.85115	8.129	.534	.302	.683	.595
Valid N (listwise)	63									

As presented in Table 3, the skewness and kurtosis ratios for the pretest and posttest scores lay within the range of +/- 1.96. Therefore, the first assumption of ANCOVA, that is the normality assumption, was met. The second assumption of ANCOVA i.e., reliability of covariate, was assured via selecting a well-constructed and reliable instrument i.e., the learning engagement checklist (Pallant, 2011). The multicollinearity assumption was also met because there was only one covariate (Tabachnick & Fidell, 2007). As for the linearity assumption, the scatterplot of the variables was inspected (Figure 1).

Figure 1. *Scatterplot of pretest and posttest scores*
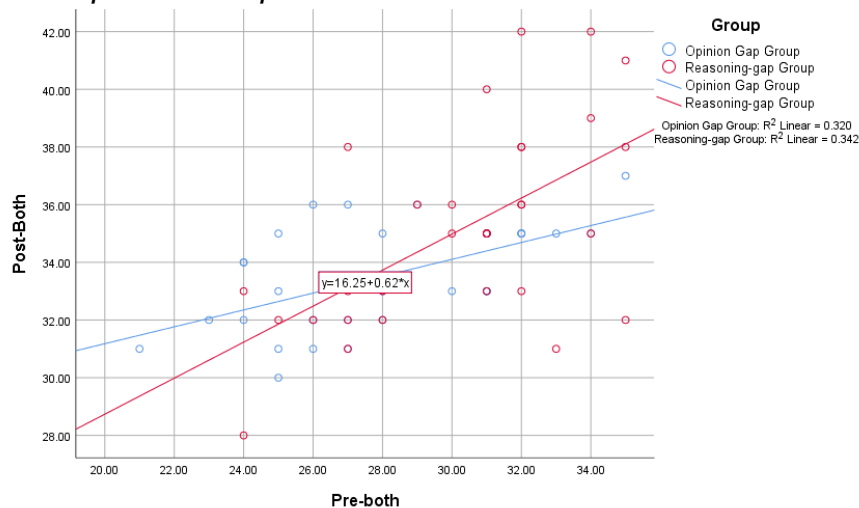
As noticed in Figure 1, the relationship between the dependent variable (posttest) and covariate (pretest) was not in the form of a straight diagonal line, indicating that the relationships were not linear, hence, the linearity assumption was violated. Thus, the researcher decided to compute the gain scores which were computed for each group by subtracting the pretest scores

from the posttest scores. Table 4 shows the results of descriptive statistics for the gain scores of the two groups along with Skewness and Kurtosis values.

Table 4. *Descriptive Statistics for the Pretest and Posttest Gain Scores*

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Gain Opinion	31	1.00	10.00	5.4516	2.94209	8.656	2.329	.421	-1.250	.821
Gain Reasoning	32	-3.00	11.00	4.8437	3.01726	9.104	-.472	.414	3.122	.809
Valid N (listwise)	31									

As shown in Table 4, the skewness and kurtosis ratios lay out of the range of +/- 1.96, indicating that the data sets were not normally distributed (Tabachnick & Fidell, 2007). Thus, the Mann-Whitney U Test, as the non-parametric equivalent of independent samples t-test, was run. Table 5 presents the respective results.

Table 5. *Results of Mann-Whitney U Test on the Gain Scores of the Two Groups*

Test Statistics[a]

	Gain Scores Both Groups
Mann-Whitney U	461.000
Wilcoxon W	957.000
Z	-.277
Asymp. Sig. (2-tailed)	.782
a. Grouping Variable: Group	

As exhibited in Table 5, the significant value equaled .78, which is higher than 0.05. Thus, it can be inferred that there was not a statistically significant difference between the gain scores of the two groups. Thus, the third null hypothesis of the study was not rejected and it can be inferred that there is no significant difference between the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement.

This study aimed to examine and compare the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement. Data analysis through the parametric test of paired sample t-test indicated that both task types significantly impacted young EFL learners' classroom engagement. Further analysis of the data by running Mann-Whitney U Test revealed that there was no significant difference between the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement.

The results of the present study confirm the findings of extant empirical investigations in terms of the effectiveness of opinion-gap and reasoning-gap tasks on different language skills and components. For instance, the findings substantiate the findings of Rabbanifar and Mall-Amiri (2017) as their findings revealed that both reasoning-gap and opinion gap tasks significantly impacted speaking complexity and accuracy. Similarly, Namaziandost et al. (2019) explored the impact of opinion-gap, reasoning-gap, and information-gap tasks on EFL learners' speaking fluency. The results indicated that the three experimental groups outperformed the control group on the posttest. Zand-Moghadam and Samani (2021) explored the effect of information-gap, reasoning-gap, and opinion-gap tasks on EFL learners' pragmatic production, metapragmatic awareness, and comprehension of implicature. The findings confirmed the positive effect of task-based instruction on EFL learner's pragmatic competence.

The positive effect of opinion-gap tasks on students' engagement can be attributed to several reasons. The first justification for the significant impact of opinion-gap tasks on young EFL learners' classroom engagement is that these tasks require students to think critically and express their opinions. More precisely, opinion-gap tasks encourage students to actively participate in the learning process by expressing their opinions and engaging in discussions with their peers. This active participation leads to increased motivation and engagement among

students. The second justification for the significant impact of opinion-gap tasks is that they are relevant and meaningful to young EFL learners. Young learners are more likely to be engaged in tasks that are relevant to their lives and interests. Opinion-gap tasks provide an opportunity for students to discuss topics that are relevant to their lives, such as their hobbies, interests, and experiences. This relevance makes the tasks more engaging and motivating for students, leading to increased classroom engagement. The third justification for the significant impact of opinion-gap tasks is that they promote collaboration and social interaction among young EFL learners. Collaborative learning has been shown to be an effective way to enhance student engagement and achievement. Opinion-gap tasks require students to work together in pairs or small groups, which promotes collaboration and social interaction. This collaboration not only enhances classroom engagement but also helps students develop important social skills such as communication, teamwork, and problem-solving.

On the other hand, the positive influence of reasoning-gap tasks on students' engagement can be explained by several reasons. The first reason is that such tasks require students to use higher-order thinking skills. Reasoning-gap tasks require students to analyze and evaluate information, make connections between different concepts, and draw conclusions based on evidence. This type of cognitive engagement leads to increased motivation and engagement among students. The second justification for the significant impact of reasoning-gap tasks is that they provide students with a sense of autonomy and control over their learning. Young learners are more likely to be engaged in tasks that allow them to make decisions and take ownership of their learning. Reasoning-gap tasks provide an opportunity for students to explore topics in their own way, using their own ideas and opinions. This autonomy makes the tasks more engaging and motivating for students, leading to increased classroom engagement. The third justification for the significant impact of reasoning-gap tasks is that they promote metacognition and self-reflection among young EFL learners. Metacognition refers to the ability to think about one's own thinking, and it has been shown to be an important factor in student engagement and achievement. Reasoning-gap tasks require students to reflect on their own thought processes, identify their strengths and weaknesses, and make adjustments accordingly. This metacognitive engagement not only enhances classroom engagement but also helps students develop important learning skills such as self-regulation and self-evaluation.

4. Conclusion

The results of the study indicated that both reasoning and opinion gap tasks significantly impacted young EFL learners' classroom engagement. Further, it was revealed that there was no significant difference between the effects of reasoning gap tasks and opinion gap tasks on young EFL learners' classroom engagement.

These findings have significant implications for teacher educators, EFL teachers, policy-makers, and Syllabus Designers and Curriculum Developers. Teacher educators can use the results to train EFL teachers to design and implement reasoning-gap tasks and opinion gap tasks in their classrooms. Additionally, teacher educators can encourage EFL teachers to use a variety of task types to enhance classroom engagement and cater to the diverse learning needs of their students. EFL teachers can use reasoning-gap tasks and opinion gap tasks to promote classroom engagement among their students. Furthermore, EFL teachers can use the findings to design materials and activities that promote higher-order thinking skills, autonomy, and metacognition. This will help create a more engaging and motivating learning environment for young EFL learners.

Educational policy-makers can also use the results to design policies that promote the use of reasoning-gap tasks and opinion gap tasks in EFL classrooms. This will help create a more learner-centered approach to language education and enhance classroom engagement among young EFL learners. Materials developers can incorporate reasoning-gap tasks and opinion gap tasks into their materials to enhance classroom engagement. Furthermore, materials developers

can design materials that cater to the diverse learning needs of young EFL learners, which will help create a more engaging and motivating learning environment. Likewise, curriculum developers can use can incorporate reasoning-gap tasks and opinion gap tasks into the curriculum to enhance classroom engagement. Furthermore, they can design a curriculum that caters to the diverse learning needs of young EFL learners, which will help create a more engaging and motivating learning environment. The study's findings can help curriculum developers create a learner-centered approach to language education that focuses on promoting critical thinking, reflection, and ownership of learning.

Like any other studies, this study also had a number of limitations. The first limitation of the current study was that the researcher was not able to select the participants randomly. The second limitation was that the researcher had access to young learners within the age range of 9 to 12 and did not have access to learners lower than the age of 9. Moreover, the researcher had to deliver the treatment only for 10 sessions as the institute in which the study was carried out did not permit more sessions for treatment. Thus, the results should be generalized to other contexts and EFL learners of different age groups cautiously.

Considering these limitations, interested researchers are recommended to investigate the impact of reasoning-gap and opinion-gap tasks on the learning engagement of different age groups of EFL learners. They can also conduct a longitudinal study on the effectiveness of reasoning-gap and opinion-gap tasks in promoting engagement among young EFL learners. Further research can be designed to compare the effectiveness of reasoning-gap and opinion-gap tasks in promoting learners' engagement in online and offline language learning environments. Finally, examining the influence of EFL learners' language proficiency on their engagement by implementing reasoning-gap and opinion-gap tasks can also be examined.

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