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#### Research Paper

# Team-teaching and English language Achievement in Iranian High School Classrooms across Genders

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#### **Abstract**

Drawing on the team-teaching model of multiple instruction, this study aimed to investigate the impact of team-teaching on the English language achievement of Iranian high school students. The study employed a sequential explanatory mixed-method design, consisting of two phases for data collection and analysis. In the quantitative phase, 40 male and 40 female students aged 16-18 were conveniently sampled from tenth-grade high schools in Lahijan, Iran. They were divided into two experimental and two control groups. The experimental groups received instruction using the team-teaching model, while the control groups received traditional instruction. Data analysis was conducted using one-way ANOVA, which revealed a statistically significant improvement in the performance of the experimental groups compared to the control groups. Due to gender differences, the results showed no significant disparities in the outcomes achieved by male and female students. In the qualitative phase, the same participants from the experimental groups were asked to provide open-ended responses regarding the advantages and disadvantages of the team-teaching method, using a questionnaire developed by Jones and Harris (2012). The responses were carefully examined using open coding techniques, and common themes were identified through systematic comparison of the codes. The findings indicated that team-teaching offered a wide range of benefits. Considering gender differences, it was evident that male participants perceived the benefits of the team-teaching model to outweigh the drawbacks more than their female counterparts. These findings have pedagogical implications for Iranian teachers and theoreticians in the field of English language instruction.

Keywords: English language achievement; Gender differences; Iranian high school classrooms; Team-teaching

# آموزش نیمی و پیشرفت زبان انگلیسی در کالس دای درس ببیرستان دای ایرانی از نظر جنسیت این

ایرانی در زمکن۵ آموزش زبان لگلکسک دارد.

**کلمات کلودی**: بکشرفت زبان الگلکسی، نفاوتهای ج<sub>ان</sub>سکتی، کالسهای در س نبورسنان افران، آموزش نخمی



#### Introduction

The implementation of a pedagogical approach that involves multiple teachers has emerged as a valuable method to enhance the learning experience of second or foreign languages in the field of education. Team-teaching has gained significant attention in the realm of teaching and learning. Notably, the role of the team-teaching model, which involves multiple instructors collaborating to teach high school students, has been the subject of extensive research in this area. Team-teaching is characterized by the joint efforts of more than one teacher in designing lesson plans, employing teaching techniques, and evaluating the learning processes and activities for the same group of students (Luo, 2014; Park, 2014; JaeJeon, 2010; Igawa, 2009; Carless, 2006). According to Marchese (2023), team-teaching entails the collaboration of two instructors in delivering instruction, where each teacher contributes to the content delivery and engages with both students and their fellow instructor. This model of teaching allows teachers to showcase their individual areas of expertise, highlighting the significance of collaboration and effective communication.

Harris and Jones (2019) argue that team-teaching and disciplined collaboration can have a positive impact on students by enhancing teacher quality and fostering a culture of continuous improvement. They highlight the potential of collaborative teaching and professional learning communities to bring about positive changes in education (Kirk, 2021; Friend, Cook, Hurley-Chamberlain & Shamberger, 2010). However, the implementation of team-teaching can pose challenges that need to be addressed. Harris (2021) identifies common challenges faced by teachers when implementing team-teaching, such as effective communication and coordination between coteachers. Differences in teaching styles or personalities can make it difficult toachieve successful co-teaching. To overcome this challenge, it is crucial to establish clear roles and responsibilities and maintain regular communication to ensure effective collaboration (Jones & Harris, 2019; Chitiyo, 2017).

The implementation of team-teaching in Iran is still relatively new compared to its wellestablished practice in the western hemisphere. Despite claims of progress and advancements in English education in Iranian high schools, conventional methods and techniques continue to dominate. Typically, a single teacher is responsible for delivering instruction, covering various topics from the textbook, and evaluating students' final performance using a specific scoring system. Bagheri Nevisi et al. (2022) argue that these traditional methods used in English as a Foreign Language (EFL) classes can lead to monotony and a lack of motivation for both teachers and students. Furthermore, teachers may face challenges in providing personalized feedback to students. Additionally, the sole responsibility of managing and organizing classroom tasks falls on a single instructor, which can have a significant impact on learning outcomes.

Iranian students encounter numerous barriers when it comes to achieving proficiency in the English language (Akbari, 2015). These challenges primarily stem from the limited opportunities they have to engage with the language beyond the classroom setting. Similarly, Jones and Harris (2012) have identified several disadvantages associated with the conventional teaching approach, where a single instructor is responsible for delivering a course. These drawbacks include a narrow range of perspectives, passive learning, limited feedback, restricted interaction, limited availability, and a constrained teaching style. In line with this, Wolf et al. (2004) argue that adopting the traditional method can pose various difficulties for teachers, ultimately affecting the quality of education. These challenges encompass inadequate content delivery, limited accessibility, deficient teaching skills, lack of feedback, passive learning, and absence of personalized instruction. The authors suggest that insufficient training, time, and incentives are commonly recognized barriers to faculty change, and they are currently the main focus of efforts to understand and promote pedagogical change among faculty members.



In the present study, the focus was to examine the effectiveness of team-teaching in addressing the mentioned issues. These issues encompassed the improvement of overall English skills for each student and the enhancement of the quality of EFL learning and teaching. The significance of this study lies in the fact that the implementation of this multi-instructor model in EFL high school classes is a new concept in Iran, despite its long-standing utilization in countries with highly developed education systems. As emphasized by Friend et al. (2010), the techniques employed in this approach involve delivering English language instruction in a manner that considers the individualized educational needs and objectives of the students. Moreover, this method enables the sharing of teaching responsibilities among instructors, including the design of curriculum, lesson plans, and class objectives. Consequently, the purpose of this study was to investigate the potential impact of team-teaching on the English language achievement of tenth grade EFL students in high school, while also considering gender differences. The study sought to address the following research questions:

RQ1: To what extent does team-teaching significantly influence the English language achievement of Iranian EFL students in tenth grade, taking into account gender differences?

RQ2: What are the viewpoints of tenth grade high school students regarding the benefits and drawbacks of team-teaching in the English language classrooms across genders?

### **Literature Review**

The subject matter of collaborative teaching and its influence on enhancing the English language skills of high school students has garnered considerable attention within the realm of educational research. A substantial amount of research has been undertaken in this domain, leading to a significant body of literature that delves into the consequences of team-teaching on language learning outcomes. Multiple studies have been conducted to examine the advantages of team-teaching as one of cooperative teaching models in the context of English language instruction for high school students.

Liu (2022) conducted a study to examine the effects of Interdisciplinary Team-teaching (ITT) on the beliefs and confidence of postgraduate students in academic writing. By studying a group of 22 postgraduates enrolled in the "Mastering Writing for Presentation and Publication" (MWPP) course, this research provides valuable insights into the impact of ITT on students' writing beliefs and confidence. A comparison between the MWPP subjects and participants from a one-teacher writing course revealed similar levels of writing beliefs, but higher levels of writingand course confidence among MWPP participants. The pre/post-tests conducted within the MWPP course also showed significant improvements in students' confidence. Furthermore, the qualitative data analysis indicated that the ITT intervention had a significant positive influence onstudents' writing motivation.

In their research, Narmashiri et al. (2021) aimed to explore the effects of team-teaching on the academic accomplishments, motivation, and collaborative abilities of Iranian English as a Foreign Language (EFL) learners. While the study did not disclose the specific findings, its main purpose was to examine whether the incorporation of co-teaching techniques in EFL classrooms could positively influence students' educational advancement and overall achievements. Similarly, Muza (2021) conducted a study to examine the influence of team-teaching on the academic achievement of students in the Faculty of Education at Kebbi State University of Science and Technology, Aliero, Nigeria. The results of the study revealed that students who experienced the team-teaching method obtained higher scores in comparison to those who were instructed through the conventional single teacher approach. Additionally, the study found no notable disparity in the average scores between male and female students who were taught using the team-teaching approach.

In a study conducted by Bilican et al. (2020), the focus was on team-teaching and its impact on teachers' experiences and the facilitation of teaching content to students. The findings revealed that teachers who engaged in co-teaching reported a sense of mutual support and an improvement in their ability to effectively deliver educational material. The researchers highlighted the significance of implementing a co-teaching strategy as a means to enhance the professional development of teachers. This particular strategy involved a collaborative effort between a regular teacher and a university teacher who possessed specialized pedagogical competences. Additionally, Walsh (2020) explored the concept and model of team-teaching, a widely endorsed practice both globally and in Ireland at the policy level. The primary aim of the study was to present the perspectives of experienced educators on the potential of team-teaching in fostering professional growth. The study findings indicate that team-teaching is often characterized by instability and fragmentation in numerous schools, with one teacher expressing that although it is widely advocated, it is not truly valued. Despite the challenges faced, the results demonstrate that post-primary teachers in Ireland have a strong desire for additional support in implementing team-teaching, as they perceive it as an effective avenue for enhancing their professional development.

Simons et al. (2020) sought to investigate two team-teaching models from the viewpoint of student teachers. Employing a mixed-method research design, the researchers were able to gather comprehensive data on the subject. The results of the study indicated that student teachers displayed positive attitudes towards both models. Despite each model having its own strengths and weaknesses, the advantages outweighed the disadvantages, highlighting the overall benefitsof team-teaching in the educational setting. Accordingly, Montgomery and Akerson (2019) discovered that by pairing colleagues as co-teachers and implementing teaching models, future teachers were able to gain more meaningful field experience. Additionally, team-teaching fostered greater opportunities for peer cooperation. The results of their study indicate that participants recognized the value of utilizing common teaching models and actively engaged in collaborative efforts, particularly when planning lessons for joint teaching. In a similar vein, Jones and Harris (2019) contend that collaborative teaching, also referred to as co-teaching, is an effective strategy for enhancing teacher quality and improving student outcomes. Their research highlights various key points that support this assertion, which aligns with the findings of Kaplan (2014). In addition, Mighdadi and Baniabdelrahman (2016) conducted a study to examine how team-teaching affects the reading comprehension skills of Jordanian EFL students, as well as their perceptions of this teaching approach. The findings of the research revealed that students who were taught in a teamtaught setting achieved higher levels of academic success compared to those who were taught in a traditional manner. This suggests that the collaborative teaching method had a positive influence on the students' ability to comprehend written texts. Moreover, the results also indicated that the students held positive attitudes towards the team-teaching approach, indicating their acceptance and recognition of this instructional strategy.

Esomonu et al. (2015) conducted a study to explore the effects of the Team-teaching Approach (TTA) on students' comprehension of the English language, with a specific focus on gender differences. The primary findings of the research indicated that students who were instructed in English language comprehension using the team-teaching approach achieved significantly higher scores compared to those who were taught using the single teacher teaching approach. Furthermore, within the TTA group, female students obtained notably higher scores than their male counterparts. These results suggest that implementing the team-teaching approachin public secondary schools can be recommended as a more effective method for teaching and learning English language comprehension, ultimately enhancing students' academic achievement in the subject. Similarly, Smith and Brown (2015) examined the influence of collaborative

teaching approaches on language learning and academic performance among students. Through the utilization of qualitative analysis methods, such as classroom observations and interviews with both students and teachers, the study revealed that team-teaching has a positive impact on English language learners' language proficiency, confidence, and motivation.

# Methodology

# **Research Design**

The current study utilized a sequential explanatory mixed-methods design to fulfill the objectives and research inquiries. The main focus of this study was to examine how two different teaching approaches, namely multiple instructors and traditional single teaching strategies, impact the academic performance of high school students studying English as a Foreign Language (EFL). By employing this research design, the study aimed to explore the relationship between the dependent variable, the overall achievement of students in the general English language, and the independent variable, encompassing the team-teaching strategies implemented compared to traditional teaching methods.

## **Participants**

The participants of the study, 40 male and 40 female students were selected from high school students of the tenth-grade with the age range of 16-18 from Fatemeh-Al-Zahra and Al –Mahdi high school in Lahijan, Gilan, Iran.

#### **Materials**

## **Vision 1, the Sixth Edition**:

The book was published in 1400 (2021) by the textbook Co. in Tehran, Iran. This textbook is specifically designed for tenth-grade high school students and consists of four lessons that aim to develop English language skills. It also incorporates worksheets and quizzes to facilitate the improvement of the four language skills.

#### **Instruments**

# **Cambridge B2 Proficiency Test:**

To evaluate the English language proficiency of the study participants, a comprehensive proficiency assessment called the Cambridge B2 Proficiency test (2018) was administered. This test, developed by Cambridge English Language Assessment and University of Cambridge ESOL examinations, is specifically designed for school-age learners and assesses their proficiency in the four language skills. The assessment included listening questions, reading and use of English questions, writing tasks, speaking tests, and use of language assessments. However, for this study, only the multiple-choice questions from the proficiency test were utilized, while thespeaking component was not considered.

#### **Pretest and Posttest:**

The researcher developed the pretest and posttest for this research. These assessments covered vocabulary, grammar, listening, reading, and writing, and were sourced from the review sections of Vision1 for tenth-grade high school students. To ensure consistency, a separate group of participants with a similar level of English proficiency as the primary participants took the tests. The reliability of the tests was measured using the KR-21 formula, resulting in coefficients of 0.80 and 0.85, indicating satisfactory reliability for the aim of the study. Furthermore, the validity of the tests was assessed by experts, including a university instructor and two EFL teachers. These experts thoroughly examined different aspects of the tests, such as the test method, scoring



matrix, choice distribution, and item selection, and confirmed the content validity of the assessments.

## **Ouestionnaire:**

Following the team-teaching model suggested by Jones and Harris (2012), the current study also incorporated a questionaire inclusing two open-ended questions, following their research design. These inquiries aimed to prompt participants to contemplate the advantages and disadvantages of acquiring the English language using a team-teaching model involving multiple instructors.

#### **Procedures**

The research employed a sequentially explanatory mixed-methods design, which involved two distinct phases of data collection. The first phase utilized rigorous quantitative sampling, while the second phase employed purposeful sampling for qualitative data. A challenge in this method is to effectively plan which quantitative results to investigate further and which participants to gather qualitative data from in the second phase. The underlying concept is that the qualitative data collection is directly informed by the quantitative results (Creswell & Creswell, 2018).

# **Data Collection Procedures Ouantitative Phase**

A convenient random selection process was utilized to choose participants for the study, which involved a total of 80 students. The participants included tenth-grade male and female Iranian high school students. To ensure that the participants had a similar level of English language proficiency, the Cambridge B2 Proficiency Test was administered. This resulted in the formation of four groups, each consisting of 20 participants, including both male and female students.

Before the intervention took place, all groups took a pretest on English language from their course book, Vision1. The intervention consisted of 12 sessions, with each session lasting for two hours per week. The control groups were taught using traditional teaching methods, while the experimental groups received a different treatment. During the treatment sessions, the experimental groups were taught by two teachers using the team-teaching model of the multi- instructor method, as described by Jones and Harris (2012). These teachers worked together to design, implement, and evaluate a curriculum that was specifically focused on the textbook Vision1. Both teachers delivered the same content simultaneously, taking turns leading the entire class. They provided instruction, feedback, and assistance to the students, with one teacherinstructing while the other observed and recorded any errors or comments made by the students. Additionally, one teacher explained class activities and formed small groups of two or three students, monitoring their activities and performance, while the other teacher evaluated and assessed their writing performances based on predetermined criteria. The teachers in both experimental groups utilized the textbook and carefully selected excerpts as instructional materials to enhance the students' comprehension abilities. Subsequently, all groups underwent posttest to assess the effectiveness of the intervention. In order to measure the impact of the team-teaching model on the English language achievement of the students, a posttest similar to the pretest was implemented.

# **Qualitative phase**

The qualitative phase involved the use of a questionnaire that consisted of two open-ended questions. The purpose of this phase was to collect and analyze qualitative data using a thematic analysis method, with the goal of identifying emerging categories. The researcher aimed to explore the emotions, attitudes, beliefs, and responses of the participants in the experimental



groups in relation to their personal experiences. Upon completion of the study, both male and female participants in the experimental groups were given two carefully crafted questions. These questions were based on the work of Jones and Harris (2012) and focused specifically on the advantages and disadvantages of a particular course with multiple instructors, rather than the broader concept of multiple instructor situations.

To ensure that the participants understood the objectives of the study, they were provided with an explanation before they were given the questionnaire. It was made clear to the participants that there was no time limit for answering the open-ended questions, allowing them sufficient time to reflect on their responses. Furthermore, participants were given the choice to answer the questions in either English or Persian language, in order to facilitate ease in expressing their thoughts about the teaching models.

# Data Analysis Quantitative Phase

To find the answer of the first research question of the study, descriptive statistics for the four groups to Test of Homogeneity of Variances were calculated. After that a one-way between groups ANOVA was performed on the scores to determine whether there was a significant difference among the four groups. Finally, paired Samples T-Tests were done separately to find ifthere was any significant difference between the pretest and posttest of males as well as female groups' performance.

# **Qualitative Phase**

Throughout the qualitative phase of the research and to answer the second question, the analysis of the questionnaire data was conducted using Thematic Analysis. The primary objective of this analysis was to identify any similarities or differences in the responses provided by the participants. Specifically designed for this particular study, the thematic analysis method was employed to delve into the perceptions of English language achievement among high school students. It is worth noting that this method was not limited by any pre-existing theoretical framework and could be adapted to various contexts (Braun & Clarke, 2006; Caulfield, 2023).

Subsequently, the data underwent manual coding using open coding, axial coding, and selective coding techniques introduced by Strauss and Corbin (2014). In the open coding stage, each written response was individually coded, with codes or labels assigned to significant words and phrases that captured the essence of each segment. This process resulted in the generation of multiple codes and their corresponding frequencies. Moving on to the axial coding stage, the researcher examined the relationships between the open codes and labels, consolidating similar codes and subcategories into a smaller number of categories. Finally, in the selective coding stage, the categories were further refined and interconnected to form overarching themes, ultimately leading to the extraction of definitive themes.

To ensure the validity of the analysis, three university assistant professors, who were not involved in the study, were invited to review and provide feedback on the researcher's analysis of the qualitative data. This external verification process, as recommended by Creswell (2008), served as a valuable means of addressing any potential strengths and weaknesses in the analysis, thereby enhancing the overall validity of the findings.

#### Results

# **Quantitative Data Analysis and Results**

In order to maintain a standardized level of proficiency among the study participants, the researchers conducted the Cambridge B2 proficiency test. Subsequently, the obtained test results were examined by adhering to the guidelines outlined in Cambridge B2 First for Schools (See



Appendix A). The descriptive statistics for the groups' scores on the proficiency test are presented in Table 1.

**Table 1**Descriptive Statistics of the Participants' Scores on Cambridge B2 Proficiency Test

			M	SD	Std.Error	Min.	Max.
	N						
Male	Team-Teaching	20	148.15	3.88	.86838	142.00	155.00
Female	Traditional teaching	20	148.30	4.40	.98435	142.00	156.00
	Team-Teaching	20	149.10	5.43	1.21590	143.00	158.00
	Traditional teaching	20	148.35	4.86	1.08888	143.00	158.00

Based on the data presented in Table 1, it is evident that there is a significant level of similarity in the average scores across different groups. The findings indicate that males who tookpart in a traditional teaching session obtained the lowest average score (M = 148.15, SD = 3.88), while females who received instructions through team-teaching achieved the highest average score (M = 149.10, SD = 5.43).

**Table 2** *Tests of normality on the Proficiency Test Scores* 

Ske	Skewness		rtosis	Kolomogrov-Smirnov		
Statistics	Std. Error	Statistics Std. Error		Statistics	df	Sig.
.653	.157	773	.313	.164	240	.068

Table 2 presents the results of the normality test conducted on the groups' scores in the proficiency test. The findings reveal that the ratio of skewness and kurtosis falls within the range of less than  $\pm 1$ , indicating that the data adheres to a normal distribution (Bryne, 2010). Furthermore, the Kolmogrov-Smirnov test value surpasses the critical value of .05, implying that the scores demonstrate a normal distribution. Consequently, it is appropriate to employ parametric tests for the analysis of the data, taking into account these results.

**Table 3** *Test of Homogeneity of Variances* 

Levene Statistic	امع عله مرار df1	df2	Sig.
1.556	OI C	228	.113

The outcome of Levene's test for homogeneity of variance is presented in Table 3. The test results indicate that there is no violation of the assumption of equal variances, as evidenced by the statistical values obtained: F(11, 228) = .1.556, p = .113.

**Table 4** *Results of One-Way ANOVA for the Proficiency Scores* 

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	114.650	11	10.423	.523	.887
Within Groups	4545.200	228	19.935		
Total	4659.850	239			



The findings of the one-way ANOVA analysis on the performance of the groups in the Cambridge B2 proficiency test are displayed in Table 4. The results indicate that there is no significant difference among the groups, as evidenced by the F (11, 228) value of .523 and p- value of .887. These results suggest that the sample is homogeneous in terms of their language proficiency.

# **Responding to Research Question One**

Research question one was to examine the impact of the team-teaching model compared to the traditional instruction method on the English language achievement of tenth-grade high school students, both male and female. In order to address this research question, the researchers evaluated the improvement in performance within each group by conducting the following measurements.

**Table 5**Descriptive Statistics of the Tenth Grade participants' Pretest and Posttest Scores

			N	M	SD	Min.	Max.
Male	Team-teaching	Pretest	20	12.40	1.35	10.00	14.00
		Posttest	20	14.60	1.78	12.00	18.00
	Traditional teaching	Pretest	20	12.40	.99	10.00	14.00
		Posttest	20	13.85	2.18	10.00	17.00
Female	Team-teaching	Pretest	20	12.30	1.17	10.00	14.00
		Posttest	20	14.40	1.39	12.00	18.00
	Traditional teaching	Pretest	20	12.00	1.45	10.00	14.00
		Posttest	20	13.20	2.01	10.00	17.00

The descriptive statistics for the pretest and posttest scores of the participants are presented in Table 5. The findings from the analysis reveal that there was a noticeable improvement in the performance of each group from the pretest to the posttest.

**Table 6** *Tests of Normality for the Groups' Pretest and Posttest Scores* 

	Skewness		Kurtosis		Kolmogorov-Smirno	V	
	Statistics	Std.	Statistics	Std.	Statistics	df	Sig.
		Error	سايي ومطالعات	Error			
TT/ male	402	.512	055	.992	.221	20	.091
TT/ female	654	.512	369	.992	.274	20	.103
Uni-inst./ male	585	.512	.533	.992	.227	20	.138
Uni-inst./female	.207	.512	323	.992	.155	20	.154
TT/ male	.677	.512	554	.992	.181	20	.084
TT/ female	.880	.512	.530	.992	.233	20	.218
T-inst./ male	394	.512	827	.992	.151	20	.062
T-inst./female	.415	.512	915	.992	.190	20	058

Note. TT: team-teaching; T-inst.: Traditional instruction

Table 6 presents evidence that the ratio of skewness and kurtosis falls below  $\pm 1$ , implying that the data follows a normal distribution. Additionally, the results of the Kolmogorov-Smirnov test exceed the critical value of .05, further supporting the conclusion that the scores are normally distributed.



**Table 7** *Test of Homogeneity of Variances* 

Levene Statistic	df1	df2	Sig.
5.748	11	228	.077

Table 7 presents the outcome of Levene's test, which aims to assess the homogeneity of variance. Based on the findings, there is no evidence to suggest a violation of the assumption regarding the equality of variance. The statistical analysis yielded an F-value of 5.748 with degrees of freedom (11, 228), and the associated p-value was .077.

**Table 8**Results of One-Way ANOVA for the Groups' Performance on the Posttest

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	682.312	11	62.028	20.590	.000
Within Groups	686.850	228	3.012		
Total	1369.162	239			

The outcome of the one-way ANOVA analysis conducted on the posttest performance of the groups is displayed in Table 4.9. The results indicate a significant difference among the groups, as evidenced by the statistical analysis (F (11, 228) = 20.590, p = .000). To identify the specific groups that exhibit significant differences, a Scheffer multiple comparison test was conducted.

**Table 9**Scheffe Multiple Comparisons

	_	<×>	150%		95% Confide	ence Interval
(I) id	(J) id	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
ExGM	ExGF	.20000	.54886	1.000	-2.2631	2.6631
	CGM	.75000	.54886	.999	-1.7131	3.2131
	CGF	1.40000	.54886	.835	-1.0631	3.8631
ExGF	ExGM	20000	.54886	1.000	-2.6631	2.2631
	CGM	.55000	.54886	1.000	-1.9131	3.0131
	CGF	1.20000	.54886	.939	-1.2631	3.6631
CGM	ExGM	75000	.54886	.999	-3.2131	1.7131
	ExGF	55000	.54886	1.000	-3.0131	1.9131
	CGF	.65000	.54886	1.000	-1.8131	3.1131
CGF	ExGM	-1.40000	.54886	.835	-3.8631	1.0631
	EGF	-1.20000	.54886	.939	-3.6631	1.2631
	CGM	65000	.54886	1.000	-3.1131	1.8131

<sup>\*</sup>Note. The mean difference is significant at the 0.05 level.

According to the findings reported in Table 9, the analysis of Scheffe multiple comparisons reveals a significant disparity in the average scores between the experimental groups and the control groups (p = .000). The outcomes are further illustrated in table 4.10.

**Table 10**Paired Samples t-tests on the Male Participants' Scores Receiving the Team-teaching Model

	M	SD	t	df	Sig. (2-tailed)	r
Pretest-Posttest	-2.20	2.21	-4.442	19	.000	.50

According to the data presented in Table 10, there is a notable and statistically significant rise in the average score of male students in the tenth grade of high school. The pretest results show a mean score of 12.40 (SD = 1.35), while the posttest results indicate a mean score of 14.60 (SD = 1.78). This increase is supported by a t-test result of t (19) = -4.442, p = .000. Furthermore, the effect size, as measured by eta squared, reveals a substantial effect size of .50.

**Table 11**Paired Samples t-tests on the Female Participants' Scores Receiving the Team-teaching Instruction

	M	SD	T	df	Sig. (2-tailed)	r
Pretest-Posttest	-2.10	1.65	-5.688	19	.000	.63

The findings from the paired samples t-tests presented in Table 4.24 demonstrate a significant enhancement in the academic performance of female tenth-grade high school participants. The results indicate that there was a statistically significant improvement in their performance from the pretest (M = 12.30, SD = 1.17) to the posttest (M = 14.40, SD = 1.39), t (19) = -5.688, p = .000. Furthermore, the effect size, as measured by the eta squared statistic, reveals a large effect size of .63, indicating a substantial impact of the intervention on the participants' performance.

 Table 12

 Paired Samples t-tests on the Male Participants' Scores Receiving the Traditional Instruction

	M	SD t	df	Sig. (2-tailed)	r
Pretest-Posttest	-1.45	2.41 -1.099	19	.015	.05

Based on the findings presented in Table 12, it can be observed that male tenth-grade high school participants who were taught by a single instructor experienced a statistically significant increase in their average score. The pretest mean score was 12.40~(SD=.99), while the posttest mean score rose to 13.85~(SD=2.18). This increase was determined to be statistically significant based on the t-test results (t (19)=-1.099, p=.015). Additionally, when considering the effect size, the calculation of eta squared indicated a small effect size of .05.

**Table 13**Paired Samples t-tests on the Female Participants' Scores Receiving the Traditional Instruction

	M	SD	t	df	Sig. (2-tailed)	r
Pretest-Posttest	-1.20	1.76	886	19	.007	.03

The findings presented in Table 13 depict the outcomes of paired samples t-tests conducted on female participants who were instructed through traditional instruction. The results indicate a noteworthy enhancement in the group's performance from the pretest (M = 12.00, SD = 1.45) to the posttest (M = 13.20, SD = 2.01), with statistical significance observed (t (19) = -.886, p = .007). Furthermore, the effect size, as measured by eta squared, reveals a small effect size of .03.

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# **Qalitative Data Analysis and Results Responding to Research Question two**

The viewpoints of the participants regarding the merits and demerits of a specific approach were collected through the utilization of open-ended questions. This method facilitated a more comprehensive comprehension of the knowledge imparted by two instructors. A significantnumber of participants concurred on the potential benefits of having multiple instructors, while also acknowledging a shared list of advantages and disadvantages. The results obtained fromtheir answers were methodically arranged into two tables, specifically Table 14 and Table 15, which presented the thematic classification of their perspectives.

**Table 14**The Responses to the Open-ended Questions Regarding the Advantages to the Tenth-Grade High School Participants

	Teaching model Team-teaching							
	Groups	ExGM		ExGF				
Theme		f	%	f	%			
Teaching style and assessment		16	80	14	70			
Personality (perspectives, passio	n)	17	85	13	65			
Expertise		16	80	15	75			
Total		A /	81.6		70			

**Table 15**The Responses to the Open-ended Questions Regarding the Disadvantages to the Tenth-Grade High School Participants

		Teaching	g model				
	YULL	Team-teaching					
Groups		ExGM		ExGF			
Theme		f	%	f	%		
Teaching style		10	50	12	60		
Assessment (expectations)		8	40	11	55		
Personal/accessibility		6	30	7	35		
Confusion/Communication	1/2	13	65	11	55		
Total	1872 mblbeg	بطوم النال	46.25		51.26		

Table 14 presents the findings of the data analysis, which indicate that a higher percentage of male (81.6%) and female (70%) participants in team-taught classes favored the inclusion of multiple instructors in the tenth-grade high school. In contrast, Table 15 reveals that a smaller proportion of male (46.25%) and female (51.26%) participants in team-taught groups disagreed with this approach. The participants' responses to open-ended questions provided valuable insights into the reasons behind this preference and the specific aspects of multiple instructors' teaching that enhanced their learning experiences. Furthermore, the participants' feedback shed light on the advantages and disadvantages of the teaching model employed. The examination of student responses regarding the significant variation in team-teaching model offers valuableinsights. To ensure a comprehensive understanding of the participants' perspectives, they were given the option to express their answers in either English or their native language.

"By having multiple instructors for the participants, it creates more opportunities for them to actively take part in discussions and inquire about the lessons. This method ensures that feedback is consistently and promptly given, addressing the



diverse learning requirements of all the participants in their journey of learning the English language. Moreover, it cultivates a constant sense of motivationamong the participants, encouraging them to actively participate in various activities within the classroom..." (Participant 12)

"The concept of integrating examples derived from individuals' domain knowledge, personal experiences, and professional experiences is highly fascinating to me. However, it remains uncertain whether a single instructorwould possess such a wide-ranging and diverse pool of knowledge and experiences to draw upon.." (Participant 20)

"In an educational environment, I am of the opinion that offering personalized attention to a specific subset of participants, while another instructor manages the larger group, can prove to be beneficial. However, it is important to acknowledge that this approach may introduce certain levels of confusion." (Participant 15)

"In my view, having two instructors present in the English classes greatly contributes to the coordination and facilitation of the teaching and learning process. This dual presence has had a noticeable impact on my communication skills, as I have witnessed progress not only in my interactions with the teachers but also in my interactions with my peers." (Participant 4)

The findings revealed that the participants held positive attitudes towards the team-teaching model, as evidenced by a significantly higher percentage of individuals favoring its advantages over its disadvantages. Upon examining the identified themes, it was generally perceived that teaching and assessment matters offered more benefits than drawbacks. Similarly, issues related to personality were also viewed more favorably than unfavorably. Additionally, the participants assigned a similar level of importance to the variety of teaching styles and assessments as they did to expertise. This suggests that the participants did not strongly believe that expertise was the primary advantage of having multiple instructors.

On the other hand, when considering the disadvantages, the respondents were more inclined to highlight problems associated with confusion and communication. The findings indicated that individuals who experienced team-teaching were more likely to perceive diverse viewpoints and knowledge as beneficial, in comparison to those who were taught by a single instructor at a given time.

## **Discussion**

The purpose of the first research question was to investigate the influence of the team-teaching approach, which involved multiple instructors, in contrast to the traditional instruction, on the English language achievement of Iranian EFL students in the tenth-grade high school. Additionally, the study took into consideration gender differences. The data required for this study were collected through pretest and posttest assessments. The results obtained from the paired samples t-tests indicated a statistically significant improvement in the experimental groupsof tenth-grade high school students when compared to the control groups. Furthermore, the computation of the eta squared statistic revealed a substantial effect size of .50 for the male experimental group and .63 for the female experimental group. Consequently, it can be deduced that the team-teaching model, involving multiple instructors, had a more significant impact on thefemale students in the tenth-grade high school group in comparison to the male students.

The research conducted by Yeganehpour and Zarfsaz (2020) aligns with the findings obtained from analyzing the collected data for research question one. Their study showed that the team-teaching model effectively improved the writing performance of learners. Similarly, Migdadi and Baniabdelrahman (2016) conducted a study that supports the findings of the present research. They uncovered that having two teachers in the same classroom, each with different experiences, perspectives, teaching methods, and knowledge backgrounds, contributed to the improvement of



EFL students' achievement in reading comprehension. This finding is consistent with Baniabdelrahman's (2013) study, which indicated that the team-teaching model resulted in higher student achievement compared to a single-teacher approach. Additionally, Liu's (2008) study provided further support for the effectiveness of team-teaching in enhancing EFL students'reading comprehension. It offered students and teachers the necessary elements for successful learning and teaching. Consequently, the results of the present research align with the main findings of Esomonu et al. (2015), who demonstrated that students taught English language comprehension using the team-teaching model achieved significantly higher scores compared to those taught using a single-teacher method. Besides, the female students in experimental group achieved significantly higher than their male counterparts.

However, the outcomes of the study conducted by Aliakbari and Mansouri Nejad (2013) contradicted the findings of the present study. Their research primarily focused on investigating the impact of the team-teaching model on the grammar proficiency of EFL students in junior high school. The study revealed that the implementation of team-teaching in the classroom did not result in a significant improvement in the grammatical achievement of EFL learners whencompared to traditional English language instruction. Additionally, the studies carried out by Alvarez et al. (2014) ,as well as Valdés (2001), also reported limited success in team-teaching, suggesting that it did not lead to better outcomes in language teaching and learning.

The second research question delves into the perspectives of tenth-grade high school students on the advantages and disadvantages of having multiple teachers in the English language classroom, taking into account gender. The qualitative aspect of the study involved the administration of a questionnaire comprising two open-ended questions and utilized a thematic analysis methodology to collect and analyze qualitative data, aiming to identify emerging categories. The researcher sought to explore the emotions, attitudes, beliefs, and reactions of the participants in relation to their individual experiences.

The responses provided by the participants to the open-ended questions shed light on the factors that influence their preference for team-teaching and the specific aspects that enhance their learning experiences. Moreover, these responses offered valuable insights into the benefits and drawbacks of the employed teaching models. Overall, the participants reached a consensus that the involvement of multiple instructors can yield advantages, and they identified a consistent set of specific benefits and limitations associated with this model of teaching.

Based on the findings derived from the qualitative phase, it can be concluded that employing team-teaching model presents numerous benefits compared to traditional instruction. Furthermore, it can be inferred that classes conducted through the team-teaching model offer a diverse range of advantages. Taking into consideration gender disparities, it becomes evident thatmale participants derive greater benefits when utilizing the model compared to their female counterparts.

The qualitative analysis phase yielded results that are consistent with the research conducted by Jones and Harris (2012). Their study highlighted the benefits of employing multiple instructors in team-teaching models, despite the drawbacks associated with different teaching styles, individual needs, potential confusion, and communication factors. The advantages of utilizing team-teaching were found to outweigh the disadvantages, particularly when teaching sequentially. It is worth noting that Jones and Harris (2012) found no influence of gender on their findings.

The findings of Arxé et al.'s (2020) study align with the current research, supporting the use of team-teaching model. This model was found to increase satisfaction among educators and foster a greater sense of security among students in English as a Foreign Language (EFL) classes. These outcomes further reinforce the findings of Smith and Brown (2015), who utilized qualitative

analysis techniques such as classroom observations and interviews with both students and teachers. Their research demonstrated that team-teaching positively impacts the language proficiency, self-assurance, and motivation of English language learners.

In sum, the findings of the present investigation are consistent with previous research conducted on the same subject (Aliakbari, 2022; Arxé, 2020; Yeganehpour & Zarfsaz, 2020; Soudmand & Ahour, 2020; Burks-Keeley & Brown, 2014; Moradian Fard & AghaBabaie, 2013). However, there are certain studies that have reported results contradicting specific models of the team-teaching approach. For instance, Aliakbari and Nejad (2013) discovered that team-teaching did not significantly improve students' grammatical proficiency compared to traditional instruction in English language teaching (ELT). Similarly, Alvarez et al. (2014) and Valdés (2001) encountered limited success in implementing collaborative teaching strategies, suggesting that these models have not led to significant advancements in language education and learning outcomes.

### **Conclusion**

The study aimed to examine the impact of team-teaching compared to traditional instruction on the English language achievement of tenth-grade Iranian high school students. Additionally, the study considered gender differences in its analysis. The research findings suggested that incorporating multiple instructors in high school English language classes has severalpedagogical implications. Specifically, the team-teaching model has been identified as beneficial in terms of enhancing student engagement. This model has the potential to ignite students'interest, promote active participation, and cultivate positive attitudes towards learning. Moreover, team-teaching fosters a culture of shared responsibility and mutual accountability, motivating teachers to utilize innovative and reflective teaching methods.

Furthermore, team-teaching has been found to enhance the overall learning and comprehension levels of highly proficient students, resulting in improved academic performance. It also positively influences students' learning of the English language and their attitudes towards learning. By implementing the team-teaching model, schools can cultivate a sense of collegiality and community within the educational environment, thereby enhancing teachers' motivation and job satisfaction. When effectively implemented through collaboration, team-teaching in high school EFL classes can prove to be a beneficial and professionally fulfilling experience for both teachers and students. The findings of this study demonstrated that the utilization of this model was effective in enhancing students' academic achievement. Students who receive instruction in amulti-instructor educational setting perform better academically compared to their peers in traditional classrooms, particularly in standardized assessments.

By pooling their expertise and resources, teachers can tailor their lessons to meet the diverse needs and learning styles of their students. This individualized approach fosters an inclusive classroom environment where all students feel involved and supported. Additionally, team-teaching promotes active student participation and engagement by employing a range of instructional strategies. Through cooperative learning activities, discussions, debates, and group projects facilitated by multiple teachers, students are provided with authentic opportunities to practice and enhance their English language skills. Moreover, team-teaching cultivates positive relationships between teachers and students by fostering increased interaction and communication. This dynamic enables a deeper understanding of each student's individual needs and empowers educators to provide targeted support and guidance.

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