

## **Impact of Online Strategies-based Instruction on Iranian Advanced EFL Learners' Speaking Scores**

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### **Abstract**

Enhancing speaking ability is an important component of the acquirement of a language. The innovative aspect of this study is improving speaking ability through online strategy-based instruction by applying the Moodle course management system as an instructional platform. To this end, a group of 80 Iranian female and male students at the advanced level participated in the treatment. Participants of the study were divided into four groups of 20. The subjects in experimental groups benefited from two particular instructional focuses of this study include social and affective strategies. In order to assess the effect of the treatment pre and posttests design were utilized. Consequently, the data were analyzed through One-Way ANOVAs and t-tests. The findings revealed that strategy treatment was successful in improving the participants' speaking ability. Therefore, the findings suggest that online strategy-based instruction can positively influence the speaking ability of Iranian advanced EFL learners. In addition, a questionnaire from .itcha karn (2015) was employed to understand students' perceptions and attitudes toward computer-based learning. The statistical analysis of the questionnaire revealed positive attitudes of participants toward computer-based learning. This study may have pedagogical implications for material practitioners, CALL package designers and distance learning planners to include strategy instruction in English courses.

**Keywords:** Moodle, Online learning, Social and affective strategies, Speaking ability, Strategy instruction

### **Introduction**

Nowadays, with the rapid growth of the Internet, researchers have found the increasing demand for using technology in today's educational settings. As a matter of fact, notwithstanding its short history, this emerging tendency has already had a facilitative and major impact on second language education. To emphasize the benefits of learning through new technologies, Mayor (2018) introduces multimedia principle which refers to the idea that, multimedia instructional messages foster "meaningful learning". Meaningful learning happens as students choose related information from what is represented, control the sections of information into a consistent mental representation, and attach the recently created representation to others. Similarly, Xiao(2018) states that in the last 20 years distance learning has shifted from the margins into the core of education programs. An increasing number of technology tools such as online dictionaries, electronic books, online private language tutoring courses, virtual schools, online journals, and other information resources permit learners to participate in

communicational settings and develop their knowledge of the second language (L2) according to their purposes and objectives. Along with the technological advancements, students now have an opportunity to integrate their learning with new pedagogical methods as well as to determine the time, physical place, and rate of their learning (Zarei & Abbasi, 2013). Bolliger and Martin (2018) argue students' involvement increases students' satisfaction, enhances students' motivation to learn, decrease the feeling of isolation, and enhances students' engagement in online courses.

In this regard, Matijašević-Obradović, Dragojlović, and Babović (2017) propose that distance education is a contemporary pedagogical approach, in which information and materials are exchanged between teachers and language learners while they are in different places at the same time. They also mention some positive features of distance learning. They declare that, through the use of the Internet, students are also able to learn at a convenient pace, at the right time and appropriate place, making it easier to conjoin acquirements with other life engagements.

Fortunately, modern technologies offer many additional appealing and engaging activities in online language learning environments for students and users. Also, online forums offer an engaging platform for educating, learning, and joining participants from all over the globe. This newly developed environment of learning can integrate different activities that maintain the development of language skills, increase the motivation of the learner, and decline the learning pressure and anxiety. The increasing accessibility of various sources and having control over the learning process can lead to an improvement in the quality of education.

Additionally, learner autonomy is one of the required elements of Internet-based education. In this environment, learners deal with self-instructional materials which help them to develop and enhance their knowledge. Besides, distance courses encourage learners to search and interpret information autonomously and promote the demand for self-centered education. Therefore, research in this field may be efficient and valuable in the procedure of language teaching and learning (Reinders, 2018).

On the other hand, enhancing speaking ability is an important component of the acquirement of a language. While the purpose of language education is to promote learners' ability to use language efficiently and properly, the study of the communicative function of language has taken on an increasingly significant role recently. The importance of speaking as a productive skill has been echoed in the literature (Hedge, 2000; Nakatani, 2005; Sayer, 2005; Méndez, 2007; 2011; Mugford, 2007; Canale, 2014).

Besides, there is a tendency in many second language approaches to a gradual change from instructor-centered courses to more student-centered classes (Piaget, 1948). Moreover, Language Learning Strategies (LLS) have received considerable attention since the center of attention moved toward more learner-centered approaches. It is noteworthy that, studying language learning strategies have started since the 1960s to help learners accomplish academic goals in L2 learning and teaching setting.

To highlight the importance of LLS, Shi (2017) argues proper use of language learning strategies leads to greater motivation and confidence. Strategy instructions can facilitate learning and help learners to be more independent, and responsible. At the same time, teachers are required to support learners to have accessibility to methodological resources and inform them about the proper use of learning strategies and guide learners to make progress and attain academic success.

The results of this study can inform second language learners about the beneficial aspect of strategies and online courses for language learning. Additionally, confirmation of the findings of this study can lead to a great achievement for instructors, curriculum designers, material

developers, and less successful learners to bolster the quality of their second language speaking programs. It seems that this study can benefit a wide range of stakeholders at both theoretical and application levels. To achieve the purpose of the study these research questions were addressed:

1. Does online social and affective strategies-based instruction improve Iranian advanced EFL learners' speaking scores?
2. What are learners' attitudes toward computer-based learning?

### **Literature Review**

Certainly, by using new technologies, computer-assisted language learning (CALL) curricula developers can integrate different activities that maintain the development of language skills, increase the motivation of the learner and decline the learning pressure and anxiety. The increasing accessibility of various authentic sources and having control over the learning process can lead to an improvement in the quality of education. Learners may apply and utilize strategies to foster their language skills. Applying technology tools and new software programs cause students to have more collaboration in some cases. For learners who are studying a new language, it is easy to communicate with other students all over the world and also talk with native speakers, which is another benefit of new technologies. Time and place constraints are some barriers for both learners and educational places, so by presenting courses in the virtual condition, these problems can be solved.

Pylkin, Pylkina, Sokolova, and Stroganova (2019) mentioned some positive features of distance learning. They claimed that, through the use of the Internet, a wide range of people have access to education, they have an opportunity to learn from home and reduce the cost of transportation, accommodation, course books, etc. Besides, learners have the chance to control the attained knowledge and get feedback via the Internet. Besides, distance courses encourage learners to search and interpret information autonomously and promote the demand for self-centered education. Likewise, Srivastava (2019) underlined the benefits of the e-learning through which learners can settle on the best time for learning, e.g. during breaks or relaxing time, and can regulate the rate of learning based on their needs regardless of the time and place.

Considering the advantages of online instruction, the capacity of the Internet to access a variety of authentic resources on every conceivable subject, including teacher and student-created content is noteworthy. Furthermore, the capability to maintain human and machine interaction in diverse formats like text, speech, video, etc. in both asynchronous and synchronous modalities is remarkable. Also, accessible tools to be used in this environment worth mentioning.

Learner autonomy is one of the required elements of Internet-based education. Schwienhorst (2003) supposed that autonomy in CALL requires learners in explanatory self-estimation and self-determination. In this environment, learners deal with self-instructional materials which help them to develop and enhance their knowledge (Reinders, 2018). Generally one of the aspects of this study as an online-based instruction was to assist learners to become more self-determining and autonomous.

To confirm the efficacy of CALL in developing learner autonomy Bolliger and Martin (2018) argued, participating in online courses and students' involvement increase students' satisfaction, enhance students' motivation to learn, decrease the feeling of isolation, and enhance students' engagement in online courses.

Zarei and Hashemipour (2015) conducted a study to examine the efficiency of CALL and conventional instruction on fostering learners' autonomy and enthusiasm. Based on the research goal two questionnaires related to learners' autonomy and motivation were distributed. Findings specified that computer-based instruction had a considerable effect on both participants'

autonomy and motivation. Researchers also emphasized that recent approaches involve a greater share of responsibility for learners. In other words, modern teaching considers learner autonomy as a facilitator of the learning procedure.

Yaghoubi, Mohammadi, Iravani, Attaran, and Gheidi (2008) examined the perception of virtual students' attitudes towards e-learning in Iran. Researchers utilized a web-based closed questions questionnaire. Results showed that students have a positive perception of e-learning.

Likewise, to encourage learners to accomplish academic goals and enhance their speaking skills, this research is an effective guide to applying language learning strategies. Language learning strategies studies started in the 1970s with the influential effort of Joan Rubin. Consequently, a model of "the good language learner" was proposed to determine what strategies successful learners used (Rubin, 1975). Learning strategies are procedures that improve language learning and teaching processes. Students learn how to overcome language learning difficulties and compensate for inaccuracies and deficiencies. Strategies are usually intentionally and purposefully applied, particularly in the early phases of coping with a new language task. Once strategy learning takes place through repetition, it can be applied more effectively and automatically (Chamot, 2004).

To highlight the importance of LLS, Shi (2017) argued proper use of language learning strategies leads to greater motivation and confidence. Strategy instructions can facilitate learning and help learners to be more independent, and responsible. At the same time, teachers are required to support learners to have accessibility to methodological resources and inform them about the proper use of learning strategies and guide learners to make progress and attain academic success.

Strategy training has been studied in all language abilities, i.e., listening (Ridgway, 2000), speaking (Hedge, 2000; Nakatani, 2005; Sayer, 2005; Méndez, 2007; 2011; Mugford, 2007; Canale, 2014), reading (Baker, 2002; Block & Pressley, 2007; Grabe, 2009), and writing (Ferris, 2011; Ameri-Golestan, 2012), vocabulary strategies (Nation, 2008), among others.

Also, this study is an attempt to help learners improve their speaking skills by applying relevant strategies. As Canale and Swain (1980) argued, strategic competence refers to the familiarity of spoken and gestural communication strategies that improve the efficiency of communication and, where essential, allow the participants to correct misconceptions and handle communication breakdowns.

As the focus of this study, learners learn how to apply affective strategies for managing their feelings and viewpoints and increasing confidence and persistence in language learning. Students, for example, make affirmative declarations about themselves after completing a task and reduce anxiety by relaxation, deep breathing, laughter, games, meditation, and music. Also, learners reinforce themselves to speak even when they are anxious about making a wrong sentence. Besides, learners apply social strategies to communicate effectively, without uncertainty to facilitate learning the new language. Learners in such educational settings raised questions and cooperated with their peers (Oxford, 2016).

Finally, it is worth mentioning that since this newly developed environment of learning can integrate different activities that maintain the development of language skills, increase the motivation of the learner and decline the learning pressure and anxiety. Computer technology has brought about many revolutionizes in language learning pedagogy. Although some studies have been conducted on strategy instruction in Iran, a little experiment has been done to evaluate the impact of social and affective strategies-based instruction on enhancing Iranians' speaking scores in the Moodle context of learning.

## Method

### Participants

The samples of the study were Iranian EFL learners. The sampling was based on a convenience sampling procedure. The participants were 40 advanced female and 40 male students studying in Iran Language Institute (ILI). They ranged from 15 to 30 in terms of age. They were placed in the relevant groups after taking ILI's placement test. Also, the Oxford Placement Test (Allen, 2004) was conducted at the beginning of the treatment to double-check the placement. Consequently, participants were randomly assigned to two female and male experimental groups and two female and male control groups (FEG, and MEG; FCG, and MCG).

**Table 1**

*Demographic Background of the Participants*

No. of Students	80 advanced students
Gender	40Females & 40Males
Native Language	Persian
Institute	Iran Language Institute
Academic Years	2018

Participants were asked at the end of the semester if they had attended any other English courses. The scores of those who answered yes were excluded from the data analysis. Besides, the examiner was actively involved at all stages of the study to upload lessons content, provide feedback, and administers tests.

### Materials and Instruments

#### Iran Language Institute Conversation Series

The educational content of this course was based on the coursebook published by Iran Language Institute (2016). Iran Language Institute Conversation Series, entitled ACT. It is a ten-level interactive English course for adult learners. It offers a robust and comprehensive focus on everyday English communication with a structured progression. The rationale for choosing this book as the course content was that the design and sequence of the book are in good accordance with the selected procedures suggested by Dörnyei (1995) for teaching strategies embedded in the instructional material.

For the purpose of this study, all the units were designed in computer format including text boxes, pictures, audios, and video clips. Moreover, the Moodle e-learning platform was used as a course delivery. A platform that provides the possibility to work and learn together in forums, wikis, glossaries, database activities, and much more. Indeed, forum tools, with group features, can be conducted in different ways to post content or create a new discussion topic (thread).

#### Cambridge English Proficiency Speaking Test

Before the treatment, an oral test, the Cambridge English proficiency speaking test, was administered to evaluate students' speaking ability in both control groups and experimental groups as the research pre-test. After the treatment, a post-test evaluated their speaking ability. To obtain meaningful results pre-test and post-test were the same. The test was 16 minutes long and consisted of three parts which were administered to the students to test their speaking ability at two stages before and after the treatment. Both pre-test and post-test were selected from the Cambridge English proficiency speaking test. The grades were calculated out of 200 for both pre-

test and post-test for all control groups and experimental groups. The standard test format is two candidates and two examiners. One examiner administers the test, supplies applicants with the required materials, and elaborates necessary steps. The other examiner does not play a role in communication.

With regards to external validation, the Association of Language Testers in Europe (ALTE) can do scales (Jones, 2002) reports a strong empirical link between test performance and perceived real-world language skills.

Concerning the reliability of these tasks, the inter-rater reliabilities were computed after the administration. To do so, the speaking test was marked independently by a minimum of two trained assessors. Neither assessor knew what scores the other has given the participant, nor what scores the participant has achieved on any of the other sub-tests.

### **Moodle E-learning Platform**

Moodle is a free course organization system for online learning. The theory behind Moodle construction is based on socio-constructivist pedagogy which supports inquiry- and discovery-based approach to facilitate interaction and online learning. A venue in which, self-discovery and learning happen through engaging in negotiations. Anyone can adapt, extend, or modify Moodle for both commercial and educational projects and benefit from the accessibility, cost-efficiency, and flexibility as well as other advantages of using Moodle.

Moodle environment provides the condition for the integration of a wide variety of resources. These include any kind of text, graphics, video, or audio. Also, evaluation and assessment can be administered easily via a wide range of assessment strategies. Besides, it provides the possibility to work and learn together in forums, wikis, glossaries, database activities, and much more. Indeed, forum tools, with group features, can be conducted in different ways to post content or create a new discussion topic (Moodle, 2019).

### **Attitude toward CALL Questionnaire**

In order to examine participants' attitudes toward CALL, to collect the desired data, the researcher adopted a questionnaire from Kitchakarn's study (2015). This instrument consists of 17 items that examine language learners' attitudes towards CALL. Each item is rated on a five-point Likert scale. It also includes 17 items addressed to students' attitudes towards CALL in improving their four language skills including listening, writing, speaking, and reading and their language areas contain pronunciation, vocabulary, and grammar. The questionnaire also mainly deals with data on CALL's ability in developing students' creativity, interaction, thinking skills, achievement, information, individuality in learning, and cultural knowledge.

As for the validity of the questionnaire, the values of congruence index for items in five-point rating scale parts were proper, as they were between 0.67 and 1.00. The congruence index for the whole questionnaire was 0.96. To investigate the internal consistency among all items, the questionnaire was piloted with 30 students and calculated for reliability value using Cronbach's Coefficient Alpha. The result revealed that the reliability coefficient value was 0.795, which depicted rather high internal consistency in almost all of the items.

### **Procedure**

The present study benefited from a quantitative research method to investigate the issue of online strategies-based instruction from different aspects. In light of the research objectives, a quasi-experimental design was employed in this study to investigate the effectiveness of strategies-based instruction in enhancing Iranian EFL learners' speaking ability in the Moodle

platform. Indeed, data gathered from administering English speaking pre-test and post-test to examine the effect of the independent variable (treatment) on the dependent variable (speaking ability) during 2018 in Kermanshah, Iran.

To homogenize the participants, in addition to ILI's placement exam, an Oxford Placement Test (Allen, 2004) was conducted at the beginning of the to double-check the placement. Based on the results, participants were divided into two EGs (one female and one male group) and two CGs (one female and one male group). After conducting the pre-test, the EGs received treatment based on strategy-based instruction and the tasks were given to them to learn and practice strategies. To formulate the initial framework of instructing social, affective strategies, the following six procedures borrowed from the study by (Dörnyei, 1995) were followed and implemented. This procedure includes six interrelated phases as follow:

**Table 2**

*Dörnyei Procedure of Strategy Instruction*

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Awareness-raising

Supporting students to be enthusiastic to take risks and apply the strategies

Supplying L2 models of the use of particular strategies

Calling attention to cross-cultural dissimilarities in strategies used

Instructing strategies directly

Supplying opportunities to apply strategies

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According to Cohen (2011), materials and contents that include both awareness-raising and strategy-based activities can be valuable for the learners to achieve knowledge and skill in language learning in general and strategy use in particular. Examples of these tasks may include problem-solving activities, simulations, and discussions that make use of referential or real questions to which the teacher, or the student, does not know the answer beforehand. Such activities, because of their unpredictable feature, may provide the learner with engaging opportunities to participate in cooperative turn-exchange and discussions. Consequently, social-affective strategies such as cooperation, asking questions, expressing feelings and attitudes, and taking calculated risks among others may be intrigued and used.

In this regard, experimental groups received a treatment consisting of various communicative pair work activities, native speakers' group discussions on relevant topics, and problem-solving activities, doing the same task that the learners had to accomplish in class. In some of these short conversations and group discussions, interlocutors benefit from using social and affective strategies to avoid communication breakdowns and enhance mutual understanding. Then, the teacher provided demonstrations to use strategies and encouraged learners to recognize, classify, and assess strategies applied by native speakers of English. In the next phase, students were given time to get ready to perform relevant similar role-plays with their partners and participate in problem-solving, decision making, and other various forms of group discussions as mentioned before. By participating in such activities, learners are allowed to express themselves, provide and receive feedback, preventer inappropriate interruptions, and observe the principles of turn-taking.

Consequently, by applying these tasks learners be taught social-affective strategies such as cooperation, asking questions, expressing feelings and attitudes, and taking calculated risks among others. For example, teaching affective strategies can be practiced by giving the students a fairly contentious subject and theme, such as friends are more important than family and ask

them to express their viewpoints and opinions. The instructor can divide the participants into groups contain a mix of views within each group and give details that for this negotiation, the objective is to prevent their voices from rising and try to manage their feelings as much as possible. Also, the instructor may monitor and give feedback on these areas (British Broadcasting Corporation, 2019). Besides, learners have the chance to enhance their speaking ability by learning content embedded in fun pages, cartoons, games, and motivating pictures.

These tasks prepare and train students for managing their feelings and attitudes and develop self-assurance and perseverance in language learning. Students, for example, make positive statements about themselves after completing a task and reduce anxiety by relaxation, deep breathing, laughter, games, meditation, and music. Besides, subjects in experimental groups were achieved instruction contains social strategies for assisting them to interact with others, without uncertainty to learn the new language. In such educational settings, learners raised questions and cooperated with their peers (Oxford, 2016).

As a result, the training of the use of social and affective strategies complemented with discussions and feedback. Later during the classes, an increasing amount of improvisation provided. The activities are focusing on interactions to provide more opportunities to utilize the target language strategies in a lifelike situation. This activity could not only raise students' awareness of the different classroom work arrangements, but also stimulate social-affective strategies such as cooperation, discussing feelings, empathizing with peers, and relaxation. Furthermore, the organization of each unit focuses to enhance speaking proficiency, but the other language skills are also developed systematically.

The experiment lasted for 2.5 months; while control groups received no strategies-based treatments at all but followed their regular EFL curriculum. Instruction in these groups was similar in length and content to the experimental groups, without any specific strategies instruction focus. A useful and meaningful environment of Moodle e-learning was selected as a delivery platform. It was imperative that the learners, according to the term schedule that they received at the beginning of the course, take part in the sessions, study the lessons, carry out the related assignments, and submit their response within the time specified by the system for their instructor.

In the final phase of this study, participants were required to take part in the post-test after the training. The Cambridge English proficiency speaking test was administered. The Speaking test is 16 minutes long and consists of three parts: in the first part, the interviewer asks participants some questions that focus on information about themselves. Each participant is then given two minutes to speak, comment after the partner, and to participate in a more unrestricted discussion. Consequently, the participant is provided a card contains a question and he/ she is given 2 minutes to talk about it. After the participants have spoken, they are asked another question connected to the topic on the card. This process is repeated so that the partner obtains a card and speaks for 2 minutes and a follow-up question is asked. Finally, the participants are asked more questions, which leads to a discussion on a general theme. Also, students were required to complete the questionnaire investigating how interesting and useful they have found computer-based learning.

### **Data Analysis**

To analyze the data, IBM SPSS Statistics 24 software was utilized. In addition to descriptive statistics, two one-way ANOVAs were employed to check the significance of the difference between the performances of different groups. Besides, to have a better picture of the

results, a matched t-test was run. In addition, In order to understand the results of the questionnaire properly, the frequency distribution procedure was applied.

## Results and Discussion

### Results

The students' speaking ability at the initial phase and at the end of the experiment was observed through pre-test and post-test, and the data were analyzed in terms of descriptive and inferential statistics.

To more assurance that there were no statistically significant differences between the means of all four groups on the pre-test, a One-way ANOVA was accomplished in the first phase of the study. Table3 demonstrates the results of the inferential statistics utilized.

**Table 3**

*One-way ANOVA for Advanced Students' Speaking Scores in the Pre-test*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.500	3	1.833	.109	.954
Within Groups	1274.300	76	16.767		
Total	1279.800	79			

Based on table3, there were no statistically significant differences between the means of control and experimental groups ( $P=.7$ ). To be more precise, the control and experimental groups were homogeneous in their speaking ability at an early stage. To conclude whether there were any statistically significant differences between the means of control and experimental groups on the post-test, another One-way ANOVA was employed after the treatment. Table 4 demonstrates the results of the inferential statistics employed.

**Table 4**

*One-way ANOVA for Advanced Students' Speaking Ability in the Post-test*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12042.500	3	4014.167	105.065	.000
Within Groups	2903.700	76	38.207		
Total	14946.200	79			

As Table4 shows, differences between the means of control and experimental groups were significant after the treatment. In other words, the participants in the experimental groups outperformed meaningfully those in the control groups ( $P=.0$ ). This shows that although the participants of the four participating groups started with a non-significant difference, they were of different speaking ability at the end of the study. To identify the exact location of the difference, it was essential to run a post hoc comparison to see the difference. Table 5 presents the results of post hoc Scheffe.

**Table 5**

*Scheffe Test for Advanced Students' Post-test Scores*

(I) class	(J) class	Mean	Std. Error	Sig.	95% Confidence Interval
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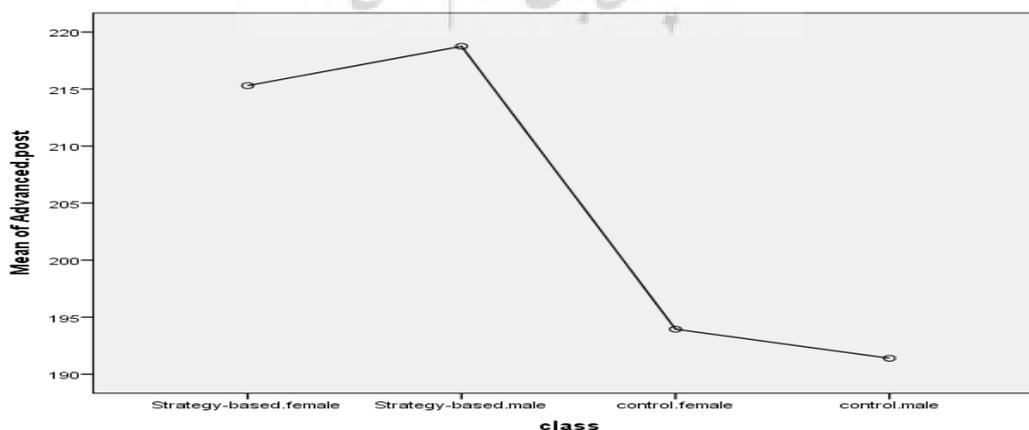
		Difference (I-J)			Lower Bound	Upper Bound
FEG	MEG	-3.450	1.955	.380	-9.04	2.14
	FCG	21.350*	1.955	.000	15.76	26.94
	MCG	23.900*	1.955	.000	18.31	29.49
MEG	FEG	3.450	1.955	.380	-2.14	9.04
	FCG	24.800*	1.955	.000	19.21	30.39
	MCG	27.350*	1.955	.000	21.76	32.94
FCG	FEG	-21.350*	1.955	.000	-26.94	-15.76
	MEG	-24.800*	1.955	.000	-30.39	-19.21
	MCG	2.550	1.955	.638	-3.04	8.14
MCG	FEG	-23.900*	1.955	.000	-29.49	-18.31
	MEG	-27.350*	1.955	.000	-32.94	-21.76
	FCG	-2.550	1.955	.638	-8.14	3.04

Table 5 shows that the mean score of the students in the female control group was significantly lower than that of students in the experimental groups ( $P=.0$ ). Another significant difference was pertinent to the one between the mean scores of the male control group and both treatment groups ( $P=.0$ ). The mean score of the female experimental group, however, was not significantly different from that of the male group ( $P=.3$ ). So, we can safely claim that there are no significant differences among the means of the experimental groups.

At the same time, there are no statistically significant differences between the control groups ( $P=.6$ ). Overall, these results declare that the mean score of the students in the experimental groups was significantly higher than those of the control groups; however, there was no significant difference between both male and female experimental groups. It can be claimed that online strategy-based instruction can positively influence the speaking scores of advanced students. In other words, strategy treatment was successful in improving the participants' speaking scores during the semester. The graphic representation of the results (Figure 1) shows the differences among the groups more conspicuously.

**Figure 1**

Means plot on the advanced students' speaking scores in the post-test.



However, to have a better picture of the treatment and participants' performances, a paired-samples t-test was run, comparing the groups' pretest and posttest mean scores. Table 6 presents the results of paired-samples t-test for the groups in the pretest and the posttest.

**Table 6**  
*Paired Samples T-Test for the Experimental and Control Groups*

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
FEG	pretest	-29.70	8.079	1.807	-33.481	-25.919	-16.440	19	.000
	posttest								
MEG	pretest	-32.50	9.316	2.083	-36.860	-28.140	-15.601	19	.000
	posttest								
FCG	pretest	-7.80	3.270	.731	-9.331	-6.269	-10.667	19	.000
	posttest								
MCG	pretest	-5.20	2.353	.526	-6.301	-4.099	-9.883	19	.000
	posttest								

The results show that there was a highly considerable increase in speaking scores from the pretest. The highest improvement belonged to the FEG; the result of the paired-samples t-test specified that the post-test mean score of the students in MEG was higher than their pre-test scores. Like the treatment groups, the speaking score of the students in the control groups improved significantly. The least, however, significant improvement was related to the male control group.

As well, to examine participants' attitudes toward computer-assisted language learning (CALL), to collect the desired data, the researcher adopted a questionnaire from Kitchakarn's (2015) study. At the end of the online course, the questionnaire was distributed online among participants. The results can be seen in details through Table 7 below:

**Table 7**  
*Questionnaire Results for Attitudes toward CALL*

Items	Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
	F	%	F	%	F	%	F	%	F	%
1. My attitudes towards using the computer in the language learning process are considered negative	3	3.7	16	20.0	19	23.7	34	42.5	8	8.0
2. Using the computer makes me learn and do my assignments easier and more convenient.	34	42.5	33	41.2	9	11.2	3	3.7	1	1.2
3. Using the computer while doing activities or assignments saves time.	19	23.7	26	32.5	17	21.2	9	11.2	9	11.2

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4. Using the computer helps me search and get information related to the English language and others from around the world.	8	10.0	38	47.5	17	21.2	12	15.0	5	6.2
5. Using the computer in learning English makes the learning process more enjoyable	45	56.2	24	30	11	13.7	0	0.0	0	0.0
6. Using the computer in learning English increases my creativity.	16	20.0	21	26.2	22	27.5	17	21.2	4	5.0
7. Using the computer in learning English increases my productivity and improves my achievement.	25	31.2	40	50.0	9	22.5	2	2.5	4	5.0
8. Using the computer in learning English makes me as a learner more autonomous and promotes individuality in the learning process	20	25.0	31	38.7	16	20	10	12.5	3	3.7
9. Using the computer in learning English improves my critical thinking.	19	23.7	25	31.2	18	22.5	9	11.2	9	11.25
10. I have more opportunities to practice my writing skills while using the computer.	21	26.2	33	41.2	17	21.2	14	17.5	8	10.0
11. While using the computer, I can improve my reading skills.	24	30.0	43	53.7	8	10	5	6.2	0	0.0
12. Using the computer in learning English helps me learn and use new vocabularies	23	28.7	36	42.9	10	10.9	11	14.3	0	0.0
13. Using the computer in learning English helps me practice my listening and speaking skills and pronunciation easily.	22	30.6	38	48.3	16	16.3	4	4.8	0	0.0
14. Using the computer in learning English helps me improve my grammatical knowledge.	11	14.3	37	45.6	14	18.4	15	19.7	3	2.0

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15. Using the computer in learning English helps me communicate and interact with my teacher and classmates easily.	22	29.9	42	52.4	8	9.5	7	7.5	1	0.7
16. Using computers in language learning can increase my motivation.	17	23.8	37	51.1	13	17.0	13	8.2	0	0.0
17. Using computers in language learning can help me learn about the culture of the target language and other cultures.	29	39.5	39	47.6	8	10.2	3	2.0	1	0.7

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As indicated in table7, results revealed that, overall, all groups agreed (agree and strongly agree) that reading, listening, speaking, and pronunciation, writing, vocabulary, communication, and grammar can be improved by CALL. A large number of participants strongly agreed and agreed that computer technology helps learn reading, vocabulary knowledge, listening, speaking, writing, communication skill, and grammar skills, respectively. This agreement among the participants regarding language skills and sub-skills was much more evident in reading and communication. The participants strongly agreed and agreed that CALL makes autonomous learning easier (63.7%), makes the learning process more enjoyable (86.2%), saves time (56.2%), and improves critical thinking (54.9%).

Additionally, a large number of participants (83.7) agreed and strongly agreed that they do their homework easier and more convenient. by using computers, and (87.1%) showed strong and moderate agreement toward the helpfulness of computers for help learning about the culture of the target language and other cultures and (74.9%) of participants strongly agreed and agreed that learning through computers increase their motivation.

Moreover, a majority of participants (about 81.2%) strongly agreed and agreed that using the computer in learning English increases their productivity and improves their achievement. However, 42.2% of them agreed that CALL increases their creativity. Only about (19%) of participants strongly agreed and agreed that their attitudes towards using the computer in the language learning process are considered negative. Regarding the use of computers in searching and getting information related to the English language and others from around the world, the participants manifested their strong and moderate agreement (57.5%).

### Discussion

To answer the research question exploring the effect of online strategies instruction on enhancing the speaking ability of Iranian advanced students, the obtained data were analyzed through statistical procedures. The results revealed that the strategies instruction has had a great impact on improving the speaking ability of Iranian advanced students. The results of the study also exposed participants in the experimental groups, who were taught to apply strategies, performed better. Strategies instruction improved their communication skills and increased their use of strategies noticeably.

Of course, the students in experimental groups had the opportunity to apply social-affective strategies such as cooperating, asking questions, expressing feelings and attitudes, and taking calculated risks among others effectively and receiving feedback from their teachers and other participants. Consequently, the exchange of these synchronous feedbacks leads to a more comforting and less threatening state in the educational setting. In fact, the results gave an affirmative response to the first research question. In fact, strategy training did have a positive effect on participants' performances in the posttest. Affective strategies, also identified as self-motivational strategies, are helpful for learners in coping with individuality factors which may be significant in their language learning development such as destructive anxiety, low self-esteem, and negative attitudes (Dörnyei, 2003).

These results are in agreement with the findings of the study on social-affective strategy use conducted by Chou (2004) who emphasized that social-affective strategies have the potential to enhance learners' communicative competence and motivation. The results are also compatible with Hedge (2000), Méndez (2007; 2011), Mugford (2007), Nakatani (2005), and Canale (2014) among others, who showed that strategy training, enhances learners' speaking abilities. Likewise, Nakatani (2005), explored strategy use among EFL Japanese learners, results revealed that students scoring high on an oral test applied social-affective strategies more than did those with low scores.

The results are also in agreement with the findings of Hengki et al. (2017) who believed in the effectiveness of teaching social strategies in the development of communicative language function of speaking. Also, Griffiths and Oxford (2014) confirmed that strategy instruction may lead to success in language learning if explicitly incorporated in the curriculum.

Besides, in any curriculum design and pedagogical approach, the learners' perspectives are of prime importance which clearly outlines the roadmap of any teaching-learning program.

Likewise, the success or failure of any program can be detected straight from learners' opinions.

Results of the questionnaire revealed that overall, all groups agreed (agree and strongly agree) that their language skills can progress by CALL.

On the other hand, several reasons have been mentioned in the literature for the effectiveness of online courses. One of the factors which has been mentioned for the superiority of the online courses in second language learning programs pertains to affective factors. Motivation is one of these factors.

Also, a lower level of anxiety in computer-mediated classes is another advantage. These classes are especially beneficial for those who are introverted and don't like to get involved in group activities. The decrease in the level of anxiety stems from the absence of gazes and eye-contacts which are reported to be torturing for introvert students (Ahmadian & Yadegari, 2009). This benefit to the introverted students might be the reason that made the difference between the online and conventional courses. CALL can provide a situation in which learners are motivated enough to get involved in the process of strategies use and without experiencing the stress of conventional classes as students usually find the online courses appealing environment which can lead to their learning. As a result, learners are now invited to engage to investigate strategies for successful language learning in digital environments (Oxford & Lin, 2011).

The E-learning environment made many of the activities more convenient and changed the structure of all the tasks. Therefore, it was vitally important to choose a panel of education in which an appealing method is analytically examined within a systematic treatment both qualitatively and quantitatively. Besides, on the other hand, several reasons have been mentioned in the literature for the effectiveness of online courses. One of the factors which have been

mentioned for the superiority of the online courses in second language learning programs pertains to affective factors. Motivation is one of these factors (Zarei & Hashemipour, 2015).

### Conclusions

Considering both the findings and limitations of this study, certain conclusions can be drawn in terms of the pedagogical implications and recommendations for further research. The pedagogical implications of the study are quite noticeable. As the results showed, online strategy training has a positive effect on EFL learners' speaking scores. The findings of this study can suggest different pedagogical implications. At the overall stage, administrators, policy-makers, and CALL program designers can apply the findings of this research in designing much more well-organized syllabi that are compatible with strategies learning. Moreover, considering strategies-based instruction as a part of instructor educating or in-service programs can be useful.

Besides, the educators, assessors, test-makers, and EFL students in various academic settings can exploit the results of this study. Experts in the field can apply social and affective strategies and related activities to enhance students' speaking ability and also benefit from the integration of educational content with Internet and technological advancements. For this purpose, language teaching curriculums should introduce strategies efficiently, and administrate online courses. Teachers can also assess their students' performances by applying technologies instead of traditional exams.

Moreover, such studies have a significant impact on the persuasion and encouragement of the students about the constructive function and effectiveness of online courses in learning English. The study was limited to explore the efficiency of strategy-based instruction on enhancing the speaking ability of participants.

An important point to note is considering the limitations of this study. For example, this study was carried out with a restricted number of participants; it is recommended that you extend the replicates of this study to other language teaching contexts such as universities, or schools. Also, to achieve the intended goals, this study undertakes to investigate the effect of two categories of the strategies namely; affective and social which seem to be more efficient in enhancing EFL learners' speaking scores.

Besides, Moodle management service was applied as a course delivery platform in this study. There are various platforms for delivering online-based courses which can be good choices for further studies. Also, as another limitation of the study, the level of proficiency of the participants was limited to intermediate. Other studies can be done with groups at different levels of proficiency. Finally, focusing qualitative research could be appealing fields for further research. Whereas, Triangulation of different instruments such as interviews and questionnaires for both teachers and learners can also supply a better understanding of the effects of strategies instruction and online courses.

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