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Research Paper

Efficacy of Flipped Language Teaching in Enhancing Iranian EFL Learners' Awareness of Reading Strategies: Learners' English Proficiency and Attitude in Focus

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Abstract
This study sought to explore the role of flipped teaching/learning in enhancing Iranian EFL learners' awareness of reading strategies. To this end, two intermediate and two upper-intermediate intact classes participated in a quasi-experimental study. The classes of each proficiency level were randomly assigned to an experimental and a control group. Having been pretested in terms of reading strategies awareness, the experimental groups received out-of-class tuition based on a flipped classroom model. On the other hand, the control groups experienced the conventional in-class method of teaching after being gauged in terms of reading strategies awareness. The results revealed that flipped teaching affected the learners' awareness of reading strategies positively, regardless of their English proficiency level. Additionally, the learners' overall attitude towards the flipped classroom model was found to be positive. The findings offered an alternative approach to reading instruction in EFL contexts like Iran.

Keywords: *EFL learners, English proficiency, flipped teaching, reading comprehension, reading strategies*

آموزش معکوس و افزایش آگاهی زبان آموزان ایرانی از راهبردهای خواندن: مهارت زبان انگلیسی و نگرش
این مطالعه به دنبال بررسی نقش آموزش/یادگیری معکوس در افزایش آگاهی زبان آموزان ایرانی از راهبردهای خواندن بود. برای این منظور، دو کلاس متوسط و دو کلاس دست نخورده متوسط رو به بالا در یک مطالعه نیمه تجربی شرکت کردند. کلاس های هر سطح مهارت به طور تصادفی در دو گروه آزمایش و کنترل قرار گرفتند. گروه های آزمایشی پس از پیش آزمون از نظر آگاهی از راهبردهای خواندن، شهریه خارج از کلاس را بر اساس مدل کلاس درس معکوس دریافت کردند. از سوی دیگر، گروه‌های کنترل پس از سنجش آگاهی از راهبردهای خواندن، روش سنتی تدریس درون کلاسی را تجربه کردند. نتایج نشان داد که آموزش معکوس بر آگاهی فراگیران از راهبردهای خواندن، بدون در نظر گرفتن سطح مهارت انگلیسی آنها، تأثیر مثبتی دارد. علاوه بر این، نگرش کلی فراگیران نسبت به مدل کلاس درس معکوس مثبت بود. یافته‌ها یک رویکرد جایگزین برای آموزش خواندن در زمینه‌های EFL مانند ایران ارائه می‌کنند.
واژگان کلیدی: تسلط بر زبان انگلیسی، آموزش برعکس، درک مطلب، راهبردهای خواندن

Introduction

Being central to both first language (L1) and second language (L2) development (Anderson, 1999), reading comprehension has always been the focal center of interest in the field of language teaching and, therefore, has garnered substantial attention from a whole host of researchers (e.g., Chen & Intaraprasert, 2014; Ghahari & Basanjideh, 2017; Jafari & Shokrpour, 2012; Lee, 2012). Specifically, reading in English takes on a special significance given its contributory role in students' academic success in learning contexts where English is used as a medium of instruction and, at the same time, a means of access to information (Sun, Shieh, & Huang, 2013). This may account for researchers' strong inclination to investigate effective approaches to teaching such an essential skill. Despite the great deal of scholars' attention to reading, it has been an area of immense difficulty to English language learners (ELL) in various English as a foreign language (EFL) context (Gorusch & Taguchi, 2010), particularly in the Iranian context of EFL learning/teaching (Mehrpour & Rahimi, 2010). As enumerated by Tercanlıoğlu (2004), the major difficulties EFL learners experience while reading include lack of language proficiency, unfamiliarity with reading skills and strategies, low level of background knowledge, and lack of interest.

Having divided the underlying processes of reading into two broad categories, namely lower-level processes (e.g., activating working memory, recognizing letter/word, syntactic parsing, etc.) and higher-level processes (e.g., using background knowledge, interpreting, making inference, etc.), Grabe and Stoller (2002) regarded reading in L2 as an intricate language learning skill which its mastery is in desperate need of familiarity with various techniques entitled "reading comprehension strategies." According to Wenden (1987, cited in Alderson, 2000), a variety of labels (i.e., tactics, techniques, learning strategies, processing skills, cognitive abilities, and problem-solving procedures) are used in the literature on reading studies to refer to reading strategies. Although a general distinction has often been made between these labels, for many scholars, all of them denote the same processes. These processes, according to the definition proposed by Anastasiou and Griva (2009), are presumed to be "specific, deliberate, goal-directed mental processes or behaviors, which control and modify a reader's efforts to decode a text, understand words and construct the meaning of a text" (pp. 283-284). As claimed by Chen (2006), to guarantee a thorough comprehension of texts written in L2, a multiplicity of reading strategies should be applied by readers.

In spite of the scholars' broad consensus on the significance of incorporating reading strategies instruction into English language curriculums, practical approaches to such instruction have been a matter of debate in recent years. Although an overwhelming majority of scholars (e.g., Brantmeier, 2002; Janzen, 2003; Pressley, 2006; McNamara, 2007) have endorsed an explicit approach to strategy teaching, which focuses on direct instruction on the theoretical and practical definitions, functions, and usage of every particular strategy, there are some others (e.g., Anderson, 2005; Cohen & Macaro, 2007) who advocate an implicit approach to strategy teaching. Believing that complete mastery of reading strategies can solely be accomplished by ample guided practice, the proponents of implicit strategy training assert that leading learners to use such techniques while decoding a text's message is the only practical method in today's limited-time language classrooms. The matter seems to be more tangible in traditional EFL settings, where a lengthy period of class time is generally devoted to teachers' lectures on the instructional content of a multi-skill course. The practical solution offered by technology to resolve the problem of a time limit is a model of blended teaching called the "flipped classroom model." The model, which entails the combination of face-to-face and technology-aided instruction, allows learners to benefit from both in-class and distance learning and provides ample time for both instruction and practice.

Acknowledging the proper use of reading strategies as an essential component of a successful proficiency-oriented EFL reading class, the current study sought to employ a flipped classroom model to explore whether or not the model could affect Iranian EFL learners' awareness of reading strategies. As its secondary aim, the study aimed to explore whether the specific participants of the current study echo the favorable opinions voiced by students in different contexts about flipped learning. In accordance with the study objectives, the following research questions were formulated:

Q1. Does flipped teaching/learning affect Iranian EFL learners' awareness of reading strategies, regardless of their English proficiency level?

Q2. How do Iranian EFL learners perceive flipped teaching/learning?

Literature Review

Reading Comprehension Strategies

A variety of taxonomies have been proposed to classify reading strategies; however, the majority of them have grounded on O'Malley and Chamot's (1990) classification of learning strategies. According to this taxonomy, learning strategies for L2 learners are of two vital kinds: (a) cognitive strategies, which are mental processes used in learning and problem solving (i.e., summarizing, predicting, note-taking, using prior knowledge, etc.), and (b) metacognitive strategies, which involve the processes whereby learners become aware of cognitive and regulatory processes (i.e., planning, setting goals, monitoring, self-management, etc.). In an earlier taxonomy, Barnett (1989) categorized reading strategies into bottom-up and top-down strategies, which are associated with low-level and high-level processing, respectively. In a general taxonomy by Oxford (1990), reading strategies are grouped under seven major headings, including memory, cognitive, metacognitive, compensation, social, affective, and test-taking strategies. Furthermore, Mokhtari and Reichard (2002) classified reading strategies into three broad categories, including a) global reading strategies, which are targeted at setting the stage for reading; b) problem-solving reading strategies, which are used to deal with the problems arising in understanding textual information; and c) support reading strategies, which are intended to provide the mechanisms required to maintain communication.

Flipped Teaching/Learning

Flipped teaching/learning, which owes its origins to socio-constructivism, is a student-centered instructional model intended to promote active participation, scaffolding, collaborative learning, and ample practice (Milman, 2012). Shifting the group-based environment of direct instruction to an individual one, the model, according to Hamdan, McKnight, McKnight, and Arfstrom (2013) introduces a major reform of the learning environment and promotes ca collaborative learning environment for task implementation and practice. In simpler terms, flipping the classroom is a pedagogical approach that reverses the space of classroom instruction and out-of-class homework. To this end, students are supposed to be provided with instructional materials prior to class time, benefiting from educational media of various sorts prepared in advance by the teacher (Overmeyer, 2012).

The theories that underpinned the flipped method of teaching include Bloom's (1956) model of thinking skills, Mayer's (2005) cognitive theory of multimedia learning, and socio-constructivism theories of learning such as Vygotsky's (1978) zone of proximal development (ZPD) and Bakhtin's (1981) dialogic learning. Being inspired by socio-constructivism theories and resting upon Bloom's six-step (1956) model of thinking skills, which distinguishes between students' lower-order thinking skills (i.e., remembering and understanding) and higher-order ones (i.e., applying, analyzing, evaluating, and creating), flipped teaching methods encourage learners to deal with lower-order skills at home and higher-order ones in class. To accelerate learners'

engagement in out-of-class lower-order thinking, the flipped model of teaching rests upon Mayer's (2005) cognitive theory of multimedia learning.

Empirical Background to the Study

Despite the abundance of studies on the role of flipped classrooms in enhancing learners' academic achievement (e.g., Elfatah & Ahmed, 2016; Enfield, 2013; Ghufron & Nurdianingsih, 2019; Leis, 2016; Rezaei Fard, Shahrokhi, & Talebinejad, 2021; Soleymani, Aliabadi, Zavaraki, & Delavar, 2021) in general and reading comprehension (e.g., Abaeian & Samadi, 2016; Hashemifardnia, Namaziandost, & Shafiee, 2018; Karimi & Hamazavi, 2017; Khadragy, 2016; Zarrinfard, Rahimi, & Mohseny, 2020) in particular, no attempt, to the best of the researcher's knowledge, has been made to explore the impact of flipped teaching/learning on the use of reading strategies among EFL learners. Besides, although the empirical evidence (Al-Harbi & Alshumaimeri, 2016; Elfatah & Ahmed, 2016; Enfield, 2013; Karimi & Hamzavi, 2017; Singay, 2020) has testified that flipped teaching/learning is perceived positively by EFL learners in a variety of EFL contexts, there is a growing need to rigorously probe into Iranian EFL learners' attitude toward the flipped classroom model, inasmuch as the model is still regarded as a new trend in the Iranian EFL teaching/learning context.

Methodology

Participants

A total of 98 Iranian EFL learners, including 50 intermediate (21 male and 29 female) and 48 upper-intermediate (20 male and 28 female) learners, constituted the participant sample of the study. Owing to a number of constraints, the random selection of the participants was dismissed as impractical, and convenience sampling was employed to select four intact classes (two intermediate and two upper-intermediate) from an accredited language institute in Tehran, Iran. Although the participants' proficiency in English was previously determined by the institute, a TOEFL PBT sample test was used to ensure the placement reliability and the homogeneity of the experimental and control groups in terms of English proficiency. Once chosen as the study sample, the two intact classes of each level of English proficiency were randomly assigned to an experimental and a control group.

Design

To address the questions of the study, a quasi-experimental pretest-posttest control group design based on a quantitative approach to data analysis was employed. To this end, all the participants were gauged in terms of reading strategies awareness (the dependent variable) before and after the study course to investigate how the changes would be attributed to either the impact of the flipped classroom model (the independent variable) or the interaction between the model and the learners' level of English proficiency (the moderator variable).

Instruments and Materials

Survey of Reading Strategies (SORS)

The instrument used to measure the learners' awareness of reading strategies was the Survey of Reading Strategies (SORS) developed by Mokhtari and Shoery (2002). The SORS, according to Mokhtari & Shoery, 2002, is suitable for measuring both native and non-native English speakers' metacognitive awareness of reading strategies. Being comprised of 30 items rated by a 5-point Liker scale ranging from "always or almost always" (5) to "never" (1), the survey gauged the respondents' awareness of various reading strategies. To wipe out any potential ambiguities,

the SORS was rendered into Persian (in consultation with an expert in translation) prior to its main administration.

Although the internal consistency of the SORS was found to be high (0.93) by Mokhtari and Shoery (2002), the bilingual (Persian and English) version of the SORS was piloted on 30 EFL learners enjoying characteristics similar to those of the participant sample. The Cronbach's alpha calculated on an overall basis (0.78) testified to an acceptable degree of internal consistency.

Attitudinal Questionnaire

To probe into the learners' attitude towards the flipped classroom model, the modified version of the survey developed by Elfatah and Ahmed (2016) was employed. To adapt the instrument for the specific participants of the study, some items were removed or replaced by new ones, and the remaining items were modified based on a flipped EFL reading classroom. The questionnaire contained a total of 17 items rated by a 5-point Likert scale from "strongly agree" (5) to "strongly disagree" (1). To make sure of the comprehensibility of the questionnaire, it was administered in both Persian and English language.

The original version of the questionnaire was verified by its developers in terms of validity and reliability. Nonetheless, the bilingual modified version used in the current study was piloted before the main study, being administered to the whole pilot sample. Statistical analysis of the responses, using Cronbach's Alpha formula (α = 0.71), revealed that the instrument was adequately reliable for being used in the specific context of the study.

Instructional Materials

The books *Select Reading, Intermediate* and *Select Reading, Upper-intermediate* (second Edition, 2011) were used to teach the intermediate and upper-intermediate participants, respectively. Embracing extensive instruction on a variety of reading strategies, the books were deemed to ideally suit the objectives of the study. To supply the participants with the study treatment, the researcher embarked on recording 10-minute video tutorials, including concise and informative lectures on the instructional content of the textbooks. Every video lecture, therefore, began with a short introduction of a specific topic and continued by a clear and concise explanation of the target reading strategy. The tutorials also included instructions on how to use the target strategy to accelerate reading comprehension.

Procedure

The treatment implementation phase lasted for a total of 24 sessions, each of 90 minutes duration. As the preliminary stage of the study course, all the participants were asked to fill in the SORS. The training phase then commenced with a brief introduction to the course. Accordingly, the learners in the experimental groups were briefed on the reasons for flipping the class and the overall structure of the video tutorials, whereas the control groups' learners were notified of the instructional goals of a conventional reading comprehension course.

Throughout the training sessions, the two experimental groups received textbook-oriented reading instruction in a flipped reading classroom. To cover the instructional content of each chapter, two full training sessions were planned. A couple of days before the first session, the researcher sent the pre-recorded video tutorial to the learners via Telegram. Taking advantage of this application, the students were able to watch the video tutorials for several times at their own speed out of class hours. To ensure that the learners have watched the videotapes at home, the instructor spent the first minutes of the class asking a number of questions about the target subject.

Having ensured that the learners are familiar with the theme and content of the chapter, the teacher encouraged them to work on a number of warm-up tasks and activities. The learners were

then asked to read the passage while circling unknown words, writing their questions in the margin, and taking notes. Afterward, the teacher read the reading passage to the class loudly. The learners were asked to listen to the recorded version of the reading passage. Engaging the learners in doing a number of post-reading activities, the instructor devoted the final minutes of the first training session to text realization. At the conclusion of the session, the learners were assigned to watch the video tutorial and read the reading passage once again at home.

Throughout the second training session, the learners were generally engaged in doing a variety of after-reading tasks and activities, such as vocabulary-building activities and reading strategies implementation tasks. Since the class time allowed doing more collaborative tasks, some of the activities were assigned to small groups of learners. The second session was terminated, providing the learners with an opportunity to broaden their views on the topic, and encouraging them to either write or discuss it. The process continued throughout the course till the whole instructional content was covered.

The control groups received the same instructional content as the experimental ones, albeit benefitting from conventional instruction in-class time without the help of video tutorials. The time required for covering each chapter was also budgeted in much the same way as it was done with respect to the experimental groups (i.e., two sessions for each chapter). Since the whole process of instruction was carried out in the classroom, the teacher felt compelled to assign individuals or groups to do randomly-selected activities so as to compensate for the lack of time. The learners were assigned to do the remaining post-reading activities at home. For their homework assignments, the learners were required to do the tasks and activities missed in-class time.

At the end of the training, all the participants were asked to fill in the SORS once again. The students in the experimental groups were additionally asked to complete the attitudinal questionnaire aimed at delving into their attitude towards flipped instruction.

Data Analysis

Once elicited from the participants, the responses to the SORS were used to calculate the learners' reading strategies awareness scores, dividing the sum of scales used to rate the whole questionnaire by the total number of items (17). Subsequently, a two-way between-subjects factorial analysis of covariance (ANCOVA) was performed to address the first research question. To answer the second question of the study, which was intended to explore the students' perception of the flipped classroom model, a descriptive-analytical approach was adopted to present an outline of the learners' responses to the attitudinal questionnaire.

Results

Results Related to the First Research Question

Table 1 depicts the descriptive statistics of the learners' reading strategies awareness scores in different groups of the study.

Table 1

Descriptive Statistics of the Learners' Reading Strategies Awareness Scores

Proficiency Level	Treatment	Variable	*N*	*Min*	*Max*	*M*	*SD*	Kurtosis	Skewness
Intermediate	Experimental	Pretest Scores	30	2.23	3.75	2.99	.39	.429	-.763
		Posttest Scores	30	2.46	3.96	3.33	.39	.032	-.734
	Control	Pretest Scores	20	2.12	3.81	3.05	.49	-.060	-.793

		Posttest Scores	20	2.23	3.90	3.06	.48	.257	-.608
Upper-intermediate	Experimental	Pretest Scores	29	2.60	4.10	3.27	.44	.091	-.931
		Posttest Scores	29	2.00	4.23	3.56	.53	-.923	.863
	Control	Pretest Scores	19	2.42	4.03	3.21	.48	.275	-.952
		Posttest Scores	19	2.43	4.10	3.28	.50	.239	-.926

Note. *N* = Number, *Min* = Minimum, *Max* = Maximum, *M* = Mean, and *SD* = Standard Deviation

As shown in Table 1, the pairwise comparison of the intermediate groups' reading strategies awareness scores indicated that the learners' initial awareness of reading strategies in the experimental condition (*M* = 2.99, *SD* = .39) was quite similar to that of the control group (*M* = 3.05, *SD* = .49). The case was roughly similar regarding the upper-intermediate groups (experimental: *M* = 3.27, *SD* = .44; Control: *M* = 3.21, *SD* = .48).

Concerning the reading strategies awareness posttest scores, results in Table 1 suggested that the learners' awareness level in the experimental groups (Intermediate: *M* = 3.33, *SD* = .39; Upper-intermediate: *M* = 3.56, *SD* = .53) was greater than their counterparts in the control groups (Intermediate: *M* = 3.06, *SD* = .48; Upper-intermediate: *M* = 3.28, *SD* = .50).

To address the first question of the study, a two-way ANCOVA was performed after making sure that the ANCOVA's underlying assumptions, such as normality, homogeneity of variances, and homogeneity of regression slopes, were satisfied. The results of the two-way ANCOVA are shown in Table 2.

Table 2

Results of the Two-way ANCOVA on Reading Strategies Awareness Posttest Scores

Source	Type III Sum of Squares	*df*	Mean Square	*F*	Sig.	Partial Eta Squared
Corrected Model	19.875	4	4.969	111.080	.000	.827
Intercept	.202	1	.202	4.524	.036	.046
Pretest Scores	16.854	1	16.854	376.767	.000	.802
Method	1.752	1	1.752	39.163	.000	.296
Proficiency Level	.007	1	.007	.151	.698	.002
Method * Proficiency Level	.068	1	.068	1.517	.221	.016
Error	4.160	93	.045			
Total	1113.947	98				
Corrected Total	24.035	97				

As displayed in Table 2, the results of the two-way ANCOVA showed no significant 2-way interaction between the instructional method and the learners' proficiency level, F (1, 93) = 1.517, p = .221. Additionally, there was a significant main effect regarding the instructional method of the study, F (1, 93) = 39.163, $p < .001$. The effect size value (.296) indicated that the instructional method might account for approximately 30% of the variance in reading strategies awareness posttest scores. Nonetheless, no significant interaction was found between the instructional method and the learners' proficiency level, F (1, 93) = 1.517, p = .221.

The examination of the marginal means (the mean estimated after detaching the covariate effect) of reading strategies awareness posttest scores, as shown in Table 3, indicated that the participants in the experimental groups outperformed their counterparts in the control groups, regardless of their proficiency level. Taking the results displayed in Tables 2 and 3 into account,

flipped learning/teaching was found to be beneficial to both intermediate and upper-intermediate learners.

Table 3

Marginal Means of the Reading Strategies Awareness Scores

Group	Proficiency Level	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Experimental	Intermediate	3.462	.039	3.384	3.540
	Upper-intermediate	3.426	.040	3.346	3.505
Control	Intermediate	3.135	.047	3.041	3.229
	Upper-intermediate	3.206	.049	3.110	3.303

Results Related to the Second Research Question

To address the second research question, the learners' responses to every item of the attitudinal questionnaire of the study were analyzed carefully, calculating a number of descriptive statistics, including frequency (*F*), percentage (*P*), mean (*M*), and standard deviation (*SD*). The results are presented in Table 4.

Table 4

Descriptive Statistics of the Students' Responses to Different Items of the Attitudinal Questionnaire

No.	Statements	*F* / *P*	SA	A	U	D	SDA	*M*	*SD*
1	The flipped instruction allowed me to prepare for my class in advance.	*F*	36	20	3	0	0	4.56	.59
		p	61.02%	33.90%	5.08%	0%	0%		
2	Through the video tutorials, I had enough time to acquire various reading skills and strategies.	*F*	24	16	5	14	0	3.85	1.20
		p	40.68%	27.12%	8.47%	23.73%	0%		
3	I felt more confident to ask for clarifications after watching the video tutorials.	*F*	21	15	14	7	2	3.78	1.16
		P	35.59%	25.42%	23.73%	11.86%	3.40%		
4	I felt more confident about my learning due to the flipped instruction.	*F*	23	17	13	5	1	3.95	1.06
		P	38.98%	28.81	22.03%	8.47%	1.70%		
5	The flipped instruction made it easier for me to do various reading tasks and activities.	*F*	29	25	3	2	0	4.37	.74
		P	49.15%	42.37%	5.08%	3.40%	0%		
6	I felt I was more in charge of my learning through the flipped instruction.	*F*	19	23	9	8	0	3.90	1.01
		P	32.21%	38.98%	15.25%	13.56%	0%		

7	The quality of my reading comprehension skill in English has improved as a result of receiving flipped instruction	*F* *P*	19 32.20%	22 37.29%	8 13.56%	10 16.95%	0 0%	3.85	1.06
8	I felt more engaged in this class than in other classes I have taken.	*F* *P*	23 38.98%	29 49.15%	1 1.70%	6 10.17%	0 0%	4.17	.89

No.	Statements	*F* / *P*	SA	A	U	D	SDA	*M*	*SD*
9	Classroom time was used effectively in the flipped classroom.	*F* *P*	22 37.29%	30 50.85%	3 5.08%	4 6.78%	0 0%	4.19	.82
10	If given the choice, I would continue learning English with the flipped classroom model.	*F* *P*	21 35.59%	25 42.37%	5 8.47%	8 13.56%	0 0%	4.00	.96
11	Video lectures are helpful in learning English.	*F* *P*	19 32.20%	23 38.98%	7 11.86%	10 16.95%	0 0%	3.85	1.05
12	The video tutorials featured all the important information required to do the coursebook activities.	*F* *P*	18 30.51%	21 35.59%	8 13.56%	10 16.95%	2 3.40	3.71	1.16
13	I believe that providing learners with video lectures on different reading strategies is the best way to improve reading comprehension.	*F* *P*	14 23.73%	19 32.20%	12 20.34%	12 20.34%	2 3.40%	3.52	1.16
14	I prefer watching video lessons at home rather than live teacher instruction in class.	*F* *P*	14 23.73%	15 25.42%	9 15.25%	15 25.42%	6 10.17%	3.27	1.35
15	I believe that Telegram offered me the appropriate facilities to adequately use the video tutorials.	*F* *P*	24 40.68%	26 44.07%	3 5.08%	6 10.17%	0 0%	4.15	.92
16	I think the video lectures were appropriate in terms of duration and technological features.	*F* *P*	18 30.51%	19 32.20%	11 18.64%	9 15.25%	2 3.40%	3.69	1.15
17	I feel that flipped instruction enhanced student-student as well	*F* *P*	21 35.59%	27 45.76%	8 13.56%	3 5.08%	0 0%	4.12	.83

	as teacher-student interaction in-class time.								
18	Total	*F* *p*	365 36.39%	372 37.09%	122 12.16%	129 12.86%	15 1.49%	3.94	.92

Note. *SD* = Strongly Disagree, D = Disagree, U = Uncertain, A = Agree, and SA = Strongly Agree

According to the results in Table 4, the learners' overall perception of the flipped classroom (*M* = 3.94, *SD* = .92) was found to be positive since the average of the scales chosen by the respondents was approximately one standard deviation above the neutral scale (3). Additionally, more than 70% of the respondents expressed their agreement on the items of the questionnaire, which all were framed in favor of the flipped classroom model.

Taking individual items into account, the results in Table 4 demonstrated that the learners had the most favorable attitude towards item 1 (*M* = 4.56, *SD* = .59) and item 5 (*M* = 4.37, *SD* = .74) respectively. With respect to item 1, the vast majority of the learners (approximately 94%) agreed that the flipped reading instruction provided them an opportunity to be prepared before going to the classroom. Only a tiny minority (less than 6%) of the respondents expressed their uncertainty about the statement. The learners evaluated item 5 in much the same way as they did item 4. That is, more than 91% of the learners agreed that they did reading tasks and activities easier than earlier as a result of receiving flipped instruction; however, there were a handful of learners (approximately 9%) who expressed neutral or negative attitudes in this regard. Items 8 (*M* = 4.17, *SD* = .89), 9 (*M* = 4.19, *SD* = .82), 10 (*M* = 4.00, *SD* = .96), 15 (*M* = 4.15, *SD* = .92), and 17 (*M* = 4.12, *SD* = .83) were the other features of the flipped classroom model perceived positively, since their mean values were at least one standard deviation above the neutral scale (3).

By contrast, the learners had the most negative attitude towards item 14 (*M* = 3.27, *SD* = 1.35). Although approximately half of the learners (49.15%) expressed their preference for watching video lessons at home, a remarkable number of the respondents expressed their either disagreement (35.59%) or uncertainty (15.26%) about such a preference.

Discussion

The quantitative analysis of the data indicated that the intermediate and upper-intermediate learners who benefited from the flipped reading classrooms outperformed their counterparts in the traditional (non-flipped) classrooms significantly. This finding revealed that the application of the flipped classroom model enhanced the learners' awareness of different reading strategies, regardless of their English proficiency level. Owing to the apparent paucity of research on the effect of flipped classroom models on learners' awareness of reading strategies, the finding could not be verified in light of the results drawn from the previous research. Nonetheless, the finding may lend additional support to the previous studies which corroborated the efficacy of flipped instruction in accelerating reading comprehension in EFL contexts (e.g., Abaeian & Samadi, 2016; Hashemifardnia et al., 2018; Karimi & Hamazavi, 2017; Khadragy, 2016; Zarrinfard et al., 2020).

The superiority of a flipped classroom model over a traditional non-flipped one in increasing the learners' awareness of reading strategies may be rooted in the capability of the model to foster a number of cognitive and metacognitive abilities, including (a) taking control of the stream and pace of learning, (b) being actively involved in the learning process, and (c) higher-level thinking and problem-solving. Additionally, in comparison with explicit strategy teaching in-class time, explicit strategy teaching through video tutorials could open up the ideal

opportunity to use the learned strategies. Adopting a flipped approach to the explicit teaching of reading strategies, the instructor exploited an adequate class time as well as the learners' well-prepared minds to amplify the level of reading strategies awareness through a variety of consciousness-raising activities. By contrast, in the non-flipped classrooms, a great deal of class time was devoted to overt instruction on reading strategies, and, as a result, the learners' chance of using the learned strategies was confined to a few numbers of randomly-selected activities.

Another explanation for the positive impact of the flipped classroom model on the learners' reading strategies awareness may be attributed to the capability of the model to effectively evoke the learners' prior knowledge about a specific topic. The utility of exploiting learners' threshold knowledge in EFL teaching has already been confirmed by Research (Scheiter, Gergets, Vollmann, & Catrambone, 2009). Having explored whether higher levels of prior knowledge contribute to a thorough mastery of learning strategies, Scheiter et al. (2009) came to a conclusion that prior knowledge of any conceptual content would help learners to reduce cognitive load during learning and, therefore, decide on the strategies well suited to their learning needs.

Although the flipped classroom model was found to be a contributory factor in boosting the learners' awareness of reading strategies, the model had no differential impact on the intermediate and upper-intermediate learners' reading strategies awareness. This finding contradicted the conclusion made by some of the previous studies (i.e., Abaeian & Samadi, 2016; Khadragy, 2016) that the flipped classroom model of reading instruction affects higher-level students more than lower-level ones. Nonetheless, the discrepancy could be attributed to the methodological differences between the studies, such as different operational definitions and instructional materials. For instance, although no explicit training in reading strategies was planned in the study carried out by Abaeian and Samadi (2016), the learners of the current study were explicitly instructed on how to use level-appropriate reading strategies to comprehend the passages selected based on their specific proficiency level. Being exposed to such explicit instruction, both groups of the participants (the intermediate and upper-intermediate learners) were very likely to improve in terms of reading strategies awareness.

In another phase of the study, the learners' attitude towards the flipped classroom model was scrutinized using a structured attitudinal survey. A detailed interpretation of the survey results revealed that although approximately half of the respondents were uncertain whether they prefer watching video lessons at home to a live teacher instruction in class, the totality of the model was perceived positively by them. This finding reinforced the idea mainly expressed in the literature about EFL students' positive perception of a flipped learning environment (e.g., Al-Harbi & Alshumaimeri, 2016; Enfield, 2013; Elfatah & Ahmed, 2016; Karimi & Hamzavi, 2017; Singay, 2020).

The item-by-item analysis of the responses revealed that the most-favored feature of the instructional model was its capability to lay the foundations for learning before going to class. Additionally, most of the respondents emphasized that flipped instruction made it easier for them to work on various reading tasks and activities. These results are fully in harmony with the findings obtained by Karimi and Hamzavi (2017), who investigated Iranian EFL students' attitudes toward the flipped model of instruction. Having positively perceived the approach, a vast majority of the learners expressed their willingness to continue English learning in a flipped classroom. Nonetheless, over half of the respondents expressed either uncertainty or disagreement about their preference for watching video lessons at home rather than live teacher instruction in class. A possible reason for such uncertainty or even disagreement would be the fact the learners in the Iranian EFL context are accustomed to relying upon their teacher while learning different skills.

Among other features of the model, the learners expressed a positive attitude towards its appropriate time allotment, the potential for involving learners in-class activities, and the capability to increase learner-learner and teacher-learner interaction in-class time. Concerning student engagement in the flipped classroom model and the proper use of time, the finding of the current study supported Elfatah and Ahmed's (2016) study in which these two features of flipped learning received the most positive remarks from the respondents. As declared by Enfield (2013), a possible explanation for such a satisfactory result may be that a flipped classroom setting (environment) could lead students to remain at higher levels of thinking for longer periods of time.

Conclusion

In sum, the results of the study revealed that flipped teaching/learning may significantly contribute to Iranian EFL learners' awareness of reading strategies. Based on the study findings, although more proficient learners of English are more likely to better comprehend English texts compared to less proficient ones, both groups could take advantage of flipped teaching/learning to raise their awareness of reading comprehension strategies. Taking these concluding remarks into account, explicit instruction of reading strategies in a flipped classroom would be beneficial to Iranian EFL learners of different English proficiency levels. EFL learners' positive attitude towards such a model would act as another testimony to the claim that the model could be regarded as a viable alternative to the mainstream reading-based classrooms in EFL contexts like Iran.

Given the concluding remarks mentioned above, effective implementation of the flipped classroom model may guarantee EFL learners' success in reading comprehension. Promoting the use of technology-aided instructional tools and facilities, a flipped approach to teaching reading skills in general and reading comprehension strategies, in particular, could allow EFL teachers to compensate for a time limit and insufficient practice, as the widely-approved deficiencies in a conventional EFL pedagogy. To maximize the efficacy of the model, however, EFL teachers are recommended to broaden their knowledge of the methods and techniques required for its successful implementation, conducting routine action research in their own classrooms.

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