



The Impact of Flipped Classroom on Developing Arabic Speaking Skills

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Published online: 23 September 2019
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Abstract The present study aimed to examine the impact of the flipped classroom on the development of the Arabic speaking skills of the seventh-grade students. In addition, the study sought to examine students' perceptions of learning via the flipped classroom. The sample consisted of 148 students who were chosen by using the convenience sampling method and were distributed randomly into a control group and an experimental group. The control group was taught using the traditional teaching method, while the experimental group was taught by the flipped classroom approach. A speaking test and semi-structured focus group interviews were employed. Results revealed that there was a statistically significant difference in the Arabic speaking skills performance between the two groups, in favor of the experimental group. Findings also showed that among the experimental group, there was a statistically significant difference in the speaking skills performance, ascribed to gender, in favor of female students. Furthermore, the study found that the students held positive perceptions of the flipped classroom.

Keywords Arabic · Flipped classroom · Performance · Perceptions · Speaking skills · Teaching

Introduction

As one of the core language skills, speaking is an interactive process of creating meaning. This process encompasses constructing, receiving, and processing information (Brown 1994; Burns and Joyce 1997). It is simply an expression of the thoughts and feelings of people through the spoken language. Within this context, Widdowson (1978) classified speaking as a productive skill, since it involves language production through uttering sounds that give an opportunity to communicate orally. It requires two different competencies. These include the linguistic competence, which means knowing how to produce precise elements of language such as vocabulary, grammar, or pronunciation and the sociolinguistic competence, which means understanding when, why, and how to produce meaning (Burns and Joyce 1997; Carter and McCarthy 1995). Speaking seems to naturally be the most important language skill (Ur 1996), and it should be mastered by all students (Bennis and Bazzaz 2014). According to Alwaely (2004), students' proficiency in speaking is a priority in language education and therefore, their success is assessed by their progress in that skill. Nunan (2001) asserted that success in the target language can be measured by the ability to perform a conversation in that language.

At the same time, several studies have indicated that middle school students in Jordan demonstrate low-level proficiency in spoken Arabic, which is their native language (e.g., ALazamate 2018; Maqableh and Batah 2015; Rabab'a and Habashneh 2015). That low level of speaking skills was attributed to the traditional teaching method that has been utilized. Taking also into consideration that speaking is one of the most difficult skills to develop in regular classroom conditions (Dakowska 2005; Kuśnierek 2015), an interesting and innovative teaching approach

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should be used. Alternative teaching approaches need to offer learners ample opportunities for language rehearsal and exposure.

Research has documented that the flipped classroom as a new teaching approach could potentially improve students' speaking skills through its effective features. Those include leading students to more engagement in meaningful learning activities (e.g., discussion, storytelling, dialogue, group presentations, etc.), wide opportunities for dynamic interaction and useful feedback, and enhancing learner autonomy and responsibility (Wu et al. 2017). Similarly, Li and Suwanthep (2017) indicated that the capability of the flipped classroom to improve students' speaking skills is due to the more opportunities and time provided to construct knowledge of speaking. This could be done by completing authentic speaking tasks that allow students to test their knowledge through lively interactions in class. In addition, the flipped classroom increases motivation to learn as a result of accessing a variety of learning materials (Lin and Hwang 2018). Taken as a whole, the flipped classroom offers an informal, rich, and pervasive learning environment that helps learners to improve their language proficiency (Hsieh et al. 2017; Lin and Hwang 2018).

However, very little attention has been directed on the impact of the flipped classroom on learning Arabic language. This study was carried out to investigate the impact of the flipped classroom on developing Arabic speaking skills of the seventh-grade students in Jordan. The research questions of the study are presented below:

1. Is there a statistically significant difference between the Arabic speaking skills performance of the seventh-grade students who were taught by the traditional teaching method and students who were taught by the flipped classroom?
2. Is there a statistically significant difference in the Arabic speaking skills performance of the experimental group students due to their gender (male and female)?
3. What are the students' perceptions regarding learning Arabic speaking skills via the flipped classroom (benefits and challenges)?

Literature Review

Speaking Skills

Language learning aims at improving the learner's skills of reading, writing, listening, and speaking. Nevertheless, speaking is commonly believed to be the most significant skill (Burns and Joyce 1997; Ur 1996). Thus, students' speaking skills need to be carefully developed, and

language teachers need to promote that development. To help students, teachers can conduct a variety of in-class speaking tasks that include six different categories (Brown and Lee 2015):

Imitative Drills that require the learner to repeat a phrase or structure that he/she might find difficult to construct.

Intensive Drills that focus on specific phonological or grammatical themes.

Responsive Short responses to questions or comments, such as yes/no questions.

Transactional Dialogues to exchange information (e.g., interviews, debates or role-plays).

Interpersonal Dialogues to establish or continue social relationships.

Extensive Extended monologues (e.g., oral speeches or reports).

Depending on the learning outcomes of the lesson and the learner's needs, these tasks can be conducted individually, or they can be integrated with one another.

There are three important elements that should be considered to enhance students' speaking performance namely pronunciation, vocabulary and collocations (Boonkit 2010). According to Shumin (2002), several elements should be involved in successful speaking. They include: effective listening skills, sociocultural issues, affective factors, and linguistic and sociolinguistic ability. Learners are required to develop communicative competence, and they also need to understand how the language system works in a meaningful way. Both fluency and accuracy are crucial for effective communication (Mazouzi 2013). The learner's confidence should also be built up by the language teacher to eliminate their fear of making errors (Patil 2008). Tam (1997) argued that providing students with varied and frequent speaking tasks can lead to improving students' fluency level. In summary, speaking could be advanced by using an appropriate lesson design, effective teaching methods, adequate tasks, and sufficient and varied materials (Bailey 2005; Songsiri 2007). The process of developing speaking skills entails three key phases:

1. *Awareness* responsiveness and knowledge of the target language features.
2. *Appropriation* integration of language features into the existing knowledge base.
3. *Autonomy* developing the ability to effectively utilize those features in real-time situations (Thornbury 2007).

The speaking skill has various areas of competency that will be the focus of the current study (Goldin-Meadow and Alibali 2013; Maqableh and Batah 2015):

Intellectual, i.e., talks about the main idea of the subject.

Linguistic, i.e., chooses clear words.

Gesture, i.e., variation in terms and usage of facial expressions that match speaking

Phonetic, i.e., the letters come out from their correct exits while talking.

Declamation, i.e., proceeds in the conversation without hesitation and shows a sequence in the presentation to make the speaking consistent and connected.

Research related to Arabic speaking skills indicated that students' low level of is due to the lack of linguistic and verbal retention, dualism of using classical and slang language, irrelevant tasks assigned, lack of time for active participation or practice during classes, deficiency of learning resources, and the type of teaching methods used (ALazamate 2018; Maqableh and Batah 2015; Nunan 2001; Rabab'a and Habashneh 2015).

New technology and its associated applications can be used to create and employ an innovative approach to confront most of the mentioned challenges (Aburezeq and Ishtaiwa-Dweikat 2017; Nomass 2013). Educators and researchers have been examining alternative teaching approaches to effectively motivate and engage language learners. An example is the flipped classroom.

The Flipped Classroom in Teaching and Learning

The flipped classroom has been commonly described as a model that allows teachers to record multimedia lessons in which students can access and view prior and outside the classroom at their own pace. This model allows teachers to devote the class time for conducting a variety of in-class learning activities (Bhagat et al. 2016; Davies et al. 2013; Fautch 2015; O'Flaherty and Phillips 2015). Primarily, the flipped classroom has two distinctive features. First, using technology to create or record video content and then share it with students as an independent learning tool. Second, the ability to effectively personalize learning where every student can learn at his/her pace (Strayer 2012).

Many studies have demonstrated the usefulness of the flipped classroom and shown its encouraging impact on education (e.g., Bhagat et al. 2016; Davies et al. 2013; Fautch 2015; Hung 2015; Mason et al. 2013; Missildine et al. 2013; O'Flaherty and Phillips 2015). For example, Missildine et al. (2013) stated that students taught by the flipped classroom demonstrated better achievement than others taught by the traditional lecture method. Participating students concluded that the possibility to stop, rewind, and watch the lecture as needed was a key factor. The flipped classroom also promotes students' ownership of learning through the requirement of completing preparatory work at home and being more active during class time. In such environment, students become more self-directed

and motivated (Evseeva and Solozhenko 2015; O'Flaherty and Phillips 2015).

Since the flipped classroom frees up actual class time for conducting learning activities, it allows teachers to use the class time in more effective ways. There will be time for covering additional topics and giving assistance to students with low achievement levels. Also, teachers will be able to motivate students of average to high achievement levels, to engage in more complicated tasks (Davies et al. 2013; Mason et al. 2013).

The benefits of the flipped classroom are explained by the cognitive theory of multimedia learning developed by Mayer (2001). The well designed flipped classroom activities integrate three significant design principles. First, the flipped classroom incorporates the multimedia principle where several media (words, pictures, and narration) are used. Second, the flipped classroom implements the modality principle by enabling students to learn from narration rather than on-screen text. A verbal explanation is given for the investigated topics. Third, the flipped classroom approach implements the individual differences principle. As stated above, this approach allows students to learn at their own pace and allows teachers to conduct a variety of activities to meet different needs (Bhagat et al. 2016). However, the process of employing the flipped classroom needs to be systematically planned and integrated to ensure its success and eliminate the discrepancy between classroom activities and students' work (Evseeva and Solozhenko 2015).

Flipped Classroom in Language Education

Numerous researchers have reported that the flipped classroom is a successful approach for improving language education and developing students' language skills. More specifically, it has the power to improve students' writing skills (Ahmed 2016; Ekmekci 2017; Leis et al. 2015; Soltanpour and Valizadeh 2018), reading and comprehension skills (Abaeian and Samadi 2016; Karimi and Raouf 2017), listening and comprehension skills (Roth and Suppasetsee 2016), and speaking skills (Agustina 2015; Koroğlu and Çakır 2017; Li and Suwanthep 2017; Lin and Hwang 2018; Wu et al. 2017; Xin-yue 2016). With a particular focus on speaking skills, Wu et al. (2017) found that the flipped classroom significantly improved the university EFL learners' speaking skills through facilitating more active engagement in an interactive and collaborative learning environment. In another study conducted by Koroğlu and Çakır (2017), it was found that preservice English language teachers taught by the flipped classroom developed a higher level of speaking skills in terms of accuracy, coherence, fluency, lexical, grammar, and pronunciation in comparison with another group taught by

traditional approaches. Similarly, Li and Suwanthep (2017) proved that the flipped classroom is a powerful approach to teach English speaking in an EFL setting. They reported that 1st year university students who received instruction via the flipped classroom achieved significantly higher scores in the speaking test than those who received instruction via the face-to-face approach. The study also found that the students held positive opinions towards the use of the flipped classroom. In a more recent study conducted by Lin and Hwang (2018) to assess the efficiency of flipped classrooms in improving EFL students' English oral presentation, it was revealed that there were several positive impacts of the flipped classroom over the conventional instruction. The study results have shown that the flipped classroom led to improve students' oral performance levels, frequency of online participation, interactive behaviors, and satisfaction.

However, the employing of this approach is not without several challenges. According to Milman (2012), the major concerns with the flipped classroom are: poor-quality video creation, circumstances related to viewing created videos, inability to monitor student comprehension, the lack of opportunity to provide just-in-time feedback and its usage with learners with disabilities. Mull (2012) added teachers' fear of losing their primary role, the lack of commitment to completing the out-of-class activities, and the amount of time and cost needed to produce instructional materials as additional concerns. Further downsides of the flipped classroom, asserted by Jenkins (2012), are students' access to technology, time in front of a screen and sitting sedentary. In their critical review studies, challenges of the flipped classroom were categorized into three main themes (Betihavas et al. 2016; Lo and Hew 2017). The first theme includes student related challenges, namely lack of experience of the flipped classroom, long video lectures, lack of clear instructions during in-class activities, increasing workload, and lack of immediate feedback during out-of-class activities. The second theme covers the teacher related challenges, namely deficiency of knowledge of the value of flipped classroom, time, effort, and materials needed for implementation. The last theme is related to operational challenges, including students' access to technology resources, teachers' technological skills, monitoring students off-class, and institutional support (Lo and Hew 2017).

Although using technology in the language classroom in Jordan is common, a flipped language classroom designed to supplement the Arabic language curriculum is unprecedented in the literature. This research attempts to examine the assertions made about flipped classrooms by investigating its impact on developing Arabic speaking skills.

Methodology

Research Design and Participants

This study employed a quasi-experimental design involving a pretest and a posttest to measure the change in the dependent variable after the intervention (Krysiak and Finn 2013). In addition, semi-structured focus group interviews were conducted to answer the third research question. The study sample involved 148 male and female seventh-grade students, registered in two schools in the academic year of 2017–2018 in Zarqa, Jordan. Schools were chosen purposefully for the similarity of location, convenience, and the cooperation of the schools' administration. The students were randomly divided into four study groups: Two experimental ($n = 73$; girls = 37; boys = 36) and two control ($n = 75$; girls = 38; boys = 37) groups. The control groups were taught speaking skills by the traditional teaching method, while the experimental groups followed the flipped classroom approach. All four groups were given a pretest before the experiment and a posttest after the experimental trial. In sampling participants for the semi-structured focus group interviews, 35 students (16 males and 19 females) were randomly selected and divided into four groups (8–10 students).

Instruments

To answer the research questions, a speaking test and a semi-structured focus group interview protocol were used. The speaking test was developed to measure the students' level of Arabic speaking performance. A variety of well-structured situations and activities were recorded and used. The test measured five weighted speaking subareas: Intellectual, linguistic, gesture, phonetic, and declamation. The procedures for developing the speaking test were as follows:

Reviewing the previous literature on speaking skills and determining the behavioral indicators that apply to each speaking subarea of competence and the criteria adopted in evaluating this type of performance.

Presenting test materials, of three different speaking topics, to a group of experts for them to choose one to be the subject of the test. The topics were The Blessed Olive Tree, Success is the Source of Happiness, and Survival is in Honesty. The experts all agreed and chose The Blessed Olive Tree.

Preparing the speaking activities based on the textbook "Our Arabic Language" designed for native Arabic-speaking seventh-grade students.

In light of the above, the speaking activities were prepared in accordance with five subareas of speaking

competence namely: Intellectual, linguistic, gesture, phonetic and declamation; as well as 24 behavioral indicators.

Then, a preliminary version of the speaking test was designed including the five subareas of speaking with behavioral indicators against each field. A five-point Likert rating scale was used.

The test was validated by six Arabic language curricula experts, and a pilot study with 30 seventh-grade students was carried out to assess the reliability of the test. Two sets of responses were used in measuring test–retest reliability ($r = 0.89$). Based on the validation process, some items were deleted, and others were modified. The final version of the speaking test consisted of 24 items. To verify the interrater reliability, Holsti's method was used (Holsti 1969). The percent of agreement/observed agreement (OA) between two raters (the researcher and the subjects' trained teacher) was calculated. The OA equation equates to (0.86).

The semi-structured focus group interview protocol was developed and employed to thoroughly examine students' perceptions regarding the benefits and challenges of the flipped classroom. The initial questions of the protocol were validated by the Arabic language curricula experts who validated the speaking test. The researcher then conducted a semi-structured focus group interview session with a group of students not participating in the study to judge the clarity and capability of the proposed questions to generate supportive data. Based on this process, a few questions were modified.

Procedure

The duration of the current study was 4 months. Before the start of the intervention, the control and experimental groups took a pretest to ensure that the two groups were similar in their level of speaking performance. As shown in Table 1, there were no statistically significant differences between the control and experimental groups in the five areas of speaking in terms of intellectual, linguistic, gesture, phonetic, and declamation skills. Also, there was no statistically significant difference in the total scores of the pretest between both groups.

Likewise, Table 2 shows that there was no statistically significant difference in the five areas of speaking between male and female students of the experimental group in terms of intellectual, linguistic, gesture, phonetic and declamation skills. In addition, there was no statistically significant difference in the total score of the pretest between male and female students of the experimental group.

Four topics with various situations were then selected to be taught to both groups during the intervention. These topics were (1) Our library, (2) Fictional journeys to the moon, (3) A historical leader, and (4) A religious character. The control group was taught by traditional teaching methods where the whole instruction was provided during the actual class. The class duration (45 min) was allocated to lecturing and discussion. Students received 20 lessons of Arabic speaking instruction. To achieve the same learning outcomes, the experimental group received instruction using the flipped classroom approach. The researcher recorded video lessons (12–20 min duration). Each corresponding video was uploaded to the Dropbox shared folder 3–5 days before class. The actual class time was devoted completely to discussion and conducting related speaking activities. Table 3 illustrates the course design features of the traditional teaching method and the flipped classroom.

At the end of the intervention, the posttest was applied in both schools to collect scores for the speaking performance. Afterwards, the semi-structured focus group interviews were conducted with the selected groups. Each interview session lasted between 65–80 min. Finally, the quantitative data collected through the speaking test was analyzed by utilizing the Statistical Package for the Social Sciences (SPSS). Descriptive and inferential statistical analysis including means, standard deviations, and the independent sample t test ($\alpha = \leq 0.05$) were used. Meanwhile, the qualitative data collected through the focus group interviews was analyzed by employing the framework of constant comparison method developed by Glaser and Strauss (1967). According to Leech and Onwuegbuzie (2008), the constant comparison method can be used as a valuable way to analyze the focus group data. Three main stages were implemented, namely grouping data into small chunks (open coding), grouping data into a number of categories (axial coding), and developing themes that that present the content of each category (selective coding) (Onwuegbuzie et al. 2009; Strauss and Corbin 1998).

Results

First Question

Is there a statistically significant difference between the Arabic speaking skills performance of the seventh-grade students who were taught by the traditional teaching method and students who were taught by the flipped classroom?

To answer this question, the means, standard deviations, and t test of the posttest scores for the speaking test were calculated by the group. As shown in Table 4, there was a statistically significant difference in the five areas of

speaking in terms of intellectual, linguistic, gesture, phonetic, and declamation skills between the control and experimental groups in favor of the experimental group taught by the flipped classroom. The data analysis also revealed that there was a statistically significant difference in the total score of the posttest between both groups in favor of the experimental group. This means that the flipped classroom approach had a positive impact on developing students' Arabic speaking skills.

Second Question

Is there a statistically significant difference in the Arabic speaking skills performance of the experimental group students due to their gender (male and female)?

Similarly, means, standard deviations, and *t* test of the posttest scores of the experimental group students by gender were calculated as shown in Table 5.

It was revealed that there was a statistically significant difference in the five areas of speaking in terms of intellectual, linguistic, gesture, phonetic, and declamation skills between male and female students in favor of females. The data analysis also revealed that there was a statistically significant difference in the total score of the posttest between both groups in favor of females.

Third Question

What are students' perceptions regarding learning Arabic speaking skills via the flipped classroom (benefits and challenges)?

Based on the analysis of the qualitative data, it was concluded that the flipped classroom has the power to benefit students' learning of Arabic speaking skills in various aspects. Participants reported that flipping the classroom has led to several advantages, including (1) increasing motivation to learn and speak, (2) positive impact on Arabic language skills, (3) plentiful opportunities for participation and active learning, (4) an interesting learning environment, (5) sufficient help and support from teacher and peers, (6) more flexible and self-directed learning (7) boosting self-confidence and minimizing anxiety, and (8) reducing negative behavior. These advantages are noticeable in the following examples of students' responses that explain their experience of learning via the flipped classroom:

"Through watching videos several times at home on my own, I learned many new words and expressions. I learned how to pronounce and use them properly".

"I could speak better in class with no tension because I learned to use a variety of new expressions".

Table 1 Means, standard deviations, and *t* test for the pretest scores by group

Area of speaking	Group	No	Mean	Standard deviation	<i>t</i>	<i>P</i>
Intellectual	Experimental	73	6.04	0.75	0.238	0.812
	Control	75	6.07	0.74		
Linguistic	Experimental	73	7.39	0.80	0.642	0.522
	Control	75	7.30	0.87		
Gesture	Experimental	73	5.72	0.59	0.771	0.442
	Control	75	5.80	0.56		
Phonetic	Experimental	73	4.27	0.68	0.373	0.710
	Control	75	4.23	0.70		
Declamation	Experimental	73	4.41	0.73	0.358	0.721
	Control	75	4.46	0.76		
Total score	Experimental	73	33.23	1.80	0.384	0.729
	Control	75	33.33	1.72		

Scores of intellectual, and gesture range from (5–25); linguistic (6–30); Phonetic and declamation (4–20); TOT (24–120)

Table 2 Means, standard deviations, and *t* test for the pretest scores among experimental group by gender

Area of speaking	Gender	No	Mean	Standard deviation	<i>t</i>	<i>P</i>
Intellectual	Male	36	6.00	1.17	0.445	0.658
	Female	37	6.08	1.74		
Linguistic	Male	36	7.35	1.21	0.386	0.700
	Female	37	7.42	0.93		
Gesture	Male	36	5.67	0.98	0.819	0.415
	Female	37	5.78	1.02		
Phonetic	Male	36	4.29	0.69	0.217	0.829
	Female	37	4.26	0.97		
Declamation	Male	36	4.38	1.08	0.403	0.688
	Female	37	4.45	1.21		
Total score	Male	36	33.18	2.97	0.242	0.809
	Female	37	33.28	2.61		

"I won't be afraid of speaking in front of my teacher and classmates. Everyone was talking because there was time for everyone. There was an encouragement for us to speak loudly as well".

I used to not speak in my class and I didn't love to do so. With this way, everything has changed. Speaking now is easier. I spend as much time as I want at home practicing and then speak in class. I feel confident now to say what I want to say. I can and want to speak more and more in class".

“It was so much fun, even though it requires more time”.

“I like the video lessons. I was able to watch each one several times before class. Each video included highly interesting materials. I started asking my brother to help me create my own videos with my voice. I enjoyed listening to myself and correct my errors”.

“It was not a big issue to make mistakes while speaking. We learned from our own and others’ mistakes”.

“I had many opportunities to listen, read, write and speak. We got engaged in many activities. The teachers and classmates helped me a lot to create my own part of the requested task. Participation is open to everyone”.

“There were no student misbehaviors. All are engaged in learning. Working together was amazing”.

Nevertheless, several challenges of the flipped classroom were also identified, especially by the male participants. They included; (1) the workload related to amount of

out-of-class preparation time needed (2) lack of direct contact with the teachers during off-class activities (3) types of uploaded videos (4) access to IT resources at home, and (5) experience with the new approach and adopting learning style change. The following students’ comments explain those challenges further:

“We were requested to do many things before coming to class. Too much time was needed for watching uploaded videos and responding to off -class activities”.

“The biggest concern related to flipping the classroom was the absence of instant feedback on off-class activities. We used to do so much homework and then wait for the next class to receive comments and support. “Some of the video lessons were too long, and I couldn’t stay focused”.

“Internet is not always available at my home. I had to download video lessons using my father’s phone”.

Table 3 The course design features

When?	Traditional teaching method (control group)	Flipped classroom (experimental group)
Before class	Students prepare for the next speaking class by reading the selected topic	Students preview the uploaded video on their own. The video includes an introduction to the selected topics, explanation of learning content, a variety of multimedia elements, and preclass activities/assignments Students could comment or post any questions related to the lesson on the Dropbox shared folder. WhatsApp messages are also allowed using a created class group The teacher interacts with students and provides feedback Students complete the preclass activities/assignments embedded in the uploaded video This step provides students with the information and background input that can serve as a basis for constructing knowledge and developing their speaking skills in the actual classroom
During class	After the classroom management and warming-up activities, the class begins with a face-to-face teaching session related to the selected topic, where the teacher explains the learning content A variety of technological tools, such as; podcasts, video clips, and slides, are used to enhance teaching and learning effectiveness Students complete comprehension exercises related to the new knowledge, to provide students with the information and background input to practice speaking. Generally, the focus is on individual discussions In the remaining time, students in pairs or groups complete a speaking activity such as role-play, dialogue or presentation for practice purposes The teacher gives feedback and assigns the homework that will be required for the next class	After the classroom management and warming-up activities, the class begins with remedial teaching and tackling misconceptions based on the results of the preclass activities/assignments, comments, and questions received. Two-way communication takes place Students engage in a variety of in-class speaking activities (e.g., group discussions, role-plays, dialogues, presentations) to help them practice, extend, and consolidate knowledge The teacher engages students in constructing the requested task by stating the aims and scenario of the requested task With instant feedback, guidance, and help from the teacher, students work collaboratively to complete their task in oral or written form. Special attention is given to help low achievers Then, each group presents their work in front of the whole class. For example, students in pairs or a small group role-play a dialogue guided by the selected topic The teacher listens, observes students, and gives feedback where ample opportunities for interactions among students and the teacher were provided
After class	Students complete homework assignments individually before the next speaking class	Students test their knowledge and assess their classmates’ work

“Downloading videos took a very long time. It requires a good device and a proper Internet connection”.

“I don’t like this way of learning. I like to do what I used to do. I prefer to do my work alone”.

Discussion and Recommendations

This study attempted to explore the impact of the flipped classroom on developing the Arabic speaking skills of seventh-grade students in Jordan and to identify their perceptions towards it. Results showed that there was a significant statistical difference in the five targeted areas of speaking between students taught by the traditional method and students taught by the flipped classroom in favor of the flipped classroom. This means that the flipped classroom had a positive impact on the students’ speaking skills. This result may be explained by the positive characteristics and benefits implied in using the flipped classroom approach for teaching speaking skills. In fact, this approach attracts and motivates students to engage more in specific-learning tasks by incorporating multimedia technology (words, pictures, and narration) that enhance motivation and allows students to learn at their own pace. The availability of the video lessons prior to the class and the requirement of completing preparatory work at home, promotes students’ ownership and control of their learning (Bhagat et al. 2016; Evseeva and Solozhenko 2015; Fautch 2015; Hung 2015; Lin and Hwang 2018; Missildine et al. 2013; O’Flaherty and Phillips 2015; Wu et al. 2017). This was demonstrated in this study by providing participants access to a variety of

Table 4 Means, standard deviations, and *t* test for the posttest scores by group

Area of speaking	Group	No	Mean	Standard deviation	<i>t</i>	<i>P</i>
Intellectual	Experimental	73	12.76	1.59	31.926	0.00
	Control	75	6.15	0.81		
Linguistic	Experimental	73	15.62	1.42	38.441	0.00
	Control	75	7.65	1.08		
Gesture	Experimental	73	11.35	1.11	35.757	0.00
	Control	75	5.97	0.69		
Phonetic	Experimental	73	8.74	1.05	29.099	0.00
	Control	75	4.39	0.75		
Declamation	Experimental	73	9.95	1.31	31.226	0.00
	Control	75	4.51	0.74		
Total score	Experimental	73	69.98	4.37	61.500	0.00
	Control	75	34.17	2.47		

Scores of intellectual, and gesture range from (5–25); linguistic (6–30); phonetic and declamation (4–20); TOT (24–120)

Table 5 Means, standard deviations, and *t* test for the posttest scores among experimental group by gender

Area of speaking	Gender	No	Mean	Standard deviation	<i>t</i>	<i>P</i>
Intellectual	Male	36	12.17	1.17	3.391	0.00
	Female	37	13.35	1.74		
Linguistic	Male	36	14.68	1.21	7.321	0.00
	Female	37	16.52	0.93		
Gesture	Male	36	10.88	0.98	3.872	0.00
	Female	37	11.80	1.02		
Phonetic	Male	36	8.11	0.69	6.301	0.00
	Female	37	9.35	0.97		
Declamation	Male	36	9.29	1.08	4.778	0.00
	Female	37	10.58	1.21		
Total score	Male	36	66.57	2.97	10.275	0.00
	Female	37	73.29	2.61		

Arabic multimedia learning materials using their own devices. They were able to watch videos before the class and could interact and complete the preclass activities/assignments. This approach not only can help students to learn but also could allow teachers to better understand the teacher–student feedback association and their learning process (Zhang et al. 2016). It seems that the flipped classroom provides a positive and motivating environment which resulted in enhancing students’ speaking skills because of this extraordinary teaching method that was used.

In addition, it increases students’ focus and attention toward the importance of correct and proper communication with the teacher and other students. In the flipped classroom environment, the actual class time is devoted to conducting learning activities whereby the teachers can use class time in more effective ways. There will be time for covering more topics in more detail and receiving instant feedback (Davies et al. 2013; Mason et al. 2013). Also, opportunities are made available for student collaboration because of the type of activities and group work assigned. Students in the flipped classroom will be able to collaborate, help and learn from each other. The design of the flipped classroom in this study included a variety of in-class learning activities focusing on discussion and practice for Arabic speaking and writing. The students could work in pairs or small groups to complete the communicative tasks in oral or written format. In addition, plenty of opportunities for interactions among students and the teacher were provided. The design of the flipped classroom also allowed the teacher to provide adequate guidance and assistance, especially for low achievers. Subsequently, this led to increasing students’ proficiency in speaking through

the increased learner vocabulary retention and the ability to speak fluently with proper gestures and the right sounds.

Looking at the calculated means for the experimental group reveals that linguistic ($M = 15.62$), intellectual ($M = 12.76$), and gesture ($M = 11.35$) were the three areas influenced the most by the flipped classroom approach, followed by declamation ($M = 9.95$), and phonetic ($M = 8.74$). This indicates that the features of the flipped classroom approach have widened the students' abilities to obtain and use more Arabic vocabulary and increase their linguistic knowledge. For example, watching video lessons at their own pace and participating in a variety of speaking activities during the class time may have helped them to select clear words, compose expressive sentences, and use appropriate linguistic structures. In addition, those features may also have helped students to become intellectually more able to talk about their ideas. This approach also helped students improve their gestures and declamation skills by providing them with ample opportunities for matching their facial expressions and body movements with speaking, making eye contact with the audience, proceeding in the conversation without hesitation, and anticipating and delaying the speech to excite the listener as examples. In the current study, the design of the flipped classroom allowed students to practice autonomous and responsible Arabic learning through off and in-class activities. As an example, this approach motivated students to watch video lessons many times to learn new Arabic expressions. Moreover, the flipped classroom encouraged students to be more creative in learning the language. As evidence, a student indicated that she was self-motivated to create her own videos as a way of learning. This finding of the study is in line with previous studies that provide multiple lines of evidence in demonstrating the effectiveness of using the flipped classroom approach in developing speaking skills (e.g., Agustina 2015; Bergmann and Sams 2015; Koroğlu and Çakır 2017; Li and Suwanthep 2017; Lin and Hwang 2018; Sung 2015; Wu et al. 2017; Xin-yue 2016).

Another important result of the current study is the significant difference in the Arabic speaking skill performance of the experimental group students based on their gender. This result revealed that the use of the flipped classroom helped to develop the female students speaking skills significantly more than that of the male students. Such results could be ascribed to the females' emotional expression abilities (Kring and Gordon 1998; Wester et al. 2002). Several studies have reported that women are more expressive of most emotions including sadness, disgust, fear, surprise, and happiness compared to men (e.g., Allen and Haccoun 1976; Fujita et al. 1980; Tucker and Riggio 1988). Typically, females depend on vocal tones, and they live in some imaginary status that affects their linguistic

skills. This result came in congruence with other studies which revealed that females were more able to employ technology to develop their language skills than males (e.g., Al-Kadey 2011; Baniabdelrahman 2013; Kuzmenko et al. 2006).

On the other hand, the study also revealed several challenges of implementing the flipped classroom. This requires finding ways to address those challenges. For example, teachers are required to carefully and systematically design and implement this approach (Evseeva and Solozhenko 2015). In addition, educational institutions should provide all means of support for teachers and students to support their efforts and promote success towards implementing the flipped classroom.

In conclusion, the results of the study proved that the flipped classroom was helpful in improving the seventh graders' speaking skills. This leads to the conclusion that new technology tools could be used to create effective language lessons and solve some related problems. Based on the study results, the following recommendations are provided:

1. Encourage Arabic language teachers to use the flipped classroom as an innovative teaching method to improve students' speaking skills.
2. Utilize the flipped classroom in language teaching and learning context. Such an approach has the power to enhance students' motivation and engagement which leads to facilitate the language teaching and improve learning outcomes.
3. Provide language teachers with adequate training on the implementation of the flipped classroom to enhance their integration skills.
4. Provide sufficient technology infrastructure to help teachers create and share flipped classroom learning materials. For instance, selecting the appropriate learning platform is essential to promote interaction between teachers and students.
5. Raise awareness within schools and teacher preparation programs about the benefits of flipped classroom use to enhance teachers' acceptance of this new approach.
6. Address the challenges of implementing the flipped classroom approach in language classes. For example, language teachers need to find ways of monitoring learners' evolution throughout the entire process. At the same time, teachers should have enough time allocated to complete their tasks including creating videos, planning for a variety of activities and monitoring students' work.
7. Conduct further studies about the flipped classroom and its impact on Arabic skills using a bigger sample and at different levels.

8. Conduct additional studies to investigate the impacts of the flipping classroom on students' performance and perceptions in other languages and dimensions. Such efforts could provide a holistic picture about the flipped classroom and embrace different aspects of language development.

Study Limitations

Although this research was carefully carried out and has revealed some important findings related to the use of the flipped classroom approach in language teaching and learning, there are a number of limitations. First, the current research was conducted with two groups of students present in the control group (75 students) and the experimental group (73 students). A larger sample could yield more accurate and comprehensive information. Second, the research experiment was conducted for four months. A longer intervention period could be beneficial, to observe all elements of the students' speaking performance. Third, the study was conducted in Zarqa City, Jordan, a future study could be conducted in another city of Jordan. Lastly, the study relied on a speaking test and a semi-structured focus group interview for data collection. An additional data collection method, such as a questionnaire or classroom observation, would be helpful for providing more comprehensive findings and making inferences to the causes of the differences between the two groups.

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