Blended Learning for Teaching Arabic in Singapore: listemaa3.com as an Example

Muzzammil Yassin

(clsmmy@nus.edu.sg)
National University of Singapore, Singapore

Abstract

With the widespread access to internet and the impact of such access on different aspects of life, technology has become part of the language classroom. One such manifestation of the introduction of technology into the classroom is blended learning (BL). Defined as "the integrated combination of traditional learning with web-based online approaches" (Whitelock & Jelfs, 2003, p. 99), the combination of media and tools deployed in an e-learning environment (Alavi & Gallupe, 2003) and the combination of a number of pedagogical approaches, irrespective of the learning technology used in each case (Alavi & Gallupe, 2003; Arbaugh, 2005, cited in Abu Bakar, H. et al., 2006; Whitelock & Jelfs, 2003) BL has been "identified as one of the top 10 emerging trends in the knowledge delivery industry by the American Society for Training and Development" (Rooney, 2003, cited in Alebaikan, 2010, p. 8). In this article, the researcher will summarize how applying BL helped address challenges that were faced by him, along with some observations from that experience.

1   Introduction

1.1   The teaching of Arabic as a foreign language in Singapore

The teaching of Arabic as a foreign language to children and adults alike has been widespread and is growing steadily in Singapore. For adult learners, learning Arabic as a foreign language has traditionally entailed enrolling into a course or programme offered by a private learning centre, academy or institution and attending face-to-face (F2F) classes once a week. Each class may last for anywhere between 2–3 hours. Learners then return home and review what they have learned and come back the week after for the next class.

While such an approach has been the norm and may have been a practical choice in teaching Arabic to adults, due to time constraint issues that do not permit adult learners to attend class more than once a week, the results of such teaching/learning may not always be satisfactory. As observed by the researcher, who has taught in several private institutions and centres in Singapore, learning Arabic in such a setting usually lacks sufficient interaction, reinforcement and effective retention of what has been learned in class, among other challenges. Thus, proficiency in language skills, especially speaking and listening, are slow to develop and learner attrition rates are high. Faced with such challenges, the researcher decided to try to introduce BL into one of the classes that he was teaching.

This article will mention the challenges faced by the teacher prior to the introduction of BL, what the literature says about BL, the website that was designed for the implementation of BL,

followed by the study that was carried out by the teacher. The article aims to provide suggestions and insights relating to the implementation of BL in language classrooms.

1.2   Why choose to blend? – Challenges faced by the teacher

The following are challenges that were faced by the teacher prior to implementing blended learning. The information below summarizes data from personal notes made by the teacher on a regular basis throughout the teaching process.

The need to implement blended learning arose out of a need to create a more effective learning atmosphere that would extend beyond the classroom. The researcher listed down the following main challenges that he encountered while teaching Arabic as a foreign language in the traditional classroom format:

1.2.1   Time constraints

As lessons were only conducted once a week for about 2 ½ or 3 hours a session. Often, there wasn't enough time to cover new content and provide students with sufficient opportunities to practice the content that had been taught. Also, time for reviewing content which had previously been learned was very limited. Learners also found that if the teacher were to go over a concept that had already been taught in the classroom again, very little time would be left for introducing new content. Rothwell et al. (2006) mention that blended learning also addresses the issue of time and space constraints which are prevalent today, especially among adult learners, by moving part of the learning process to the online sphere.

1.2.2   Little, if any reinforcement

As lessons were only conducted in the classroom, there was very little opportunity for learners to do exercises that were necessary to reinforce material that had been previously introduced in class. Typically, most learners would learn in class and then only re-visit the learning material the next week when they came back to class. This would result in learners constantly forgetting what had been taught previously. In addition to that, there was little motivation for learners to undertake their own revision, which, when done, was done individually.

1.2.3   Learning individually, not collectively and a lack of socialization among students

Despite collaborating in some activities in class, learners were mainly learning individually in the classroom, not collectively and together as a community of learners. Furthermore, outside of the classroom, learning content was reviewed individually and learners who had questions would then approach the teacher on an individual basis to ask questions. Even when questions were asked in front of other learners, only the questioner would pay attention to the answer given as they were the ones who could relate to the question being asked. As such, learners were together in the classroom but were not learning together as a classroom. The researcher felt that more could be done to encourage learners to come together and learn as a community. It has been mentioned in the literature that a blended learning setting that combines F2F and online lessons contributes to "a higher level of socialization and sense of togetherness among participants and, consequently to increase the quality of learning and the achievement of instructional objectives." (Rovai & Jordan, 2004, cited in Delfino et al., 2007, p. 251).

1.2.4   The need for more personal and customized feedback for learners

This challenge arose mainly from time constraints. The researcher was not able to provide personalized feedback to students on their individual assignments / quizzes. Furthermore, the researcher

noticed that some students who were shy and more introverted than others would generally refrain from asking questions pertaining to their work or what had been taught in class (Yassin, 2016). This issue used to appear when the researcher would point out some content that had been highlighted to that learner before and the learner would say that he/she actually had some questions on the feedback provided but did not 'get the chance' to follow-up. Given the importance of feedback for the learning process, the need for a feedback mechanism capable of delivering appropriate, timely and personalized feedback outside of the classroom was important to the teacher.

2   What blended learning can help to achieve

In general, the purpose of introducing blended learning into a classroom is to improve pedagogy, enhance interaction and be more flexible and cost-effective. Osguthorpe and Graham (2003) mention 6 reasons for implementing a blended learning setting: "(1) pedagogical richness, (2) access to knowledge, (3) social interaction, (4) personal agency, (5) cost-effectiveness and (6) ease of revision" (cited in Bonk & Graham, 2012, p. 8).

In addition to the above, the literature has highlighted strengths of blended learning that the teacher felt would help him overcome the challenges he faced in his traditional setting classroom. Some of these strengths that the teacher found relevant to his situation include:

2.1   *Enhanced engagement with learning material*

In a study on how blended learning affects the relationship between learners and other aspects of learning, Aspden and Helm (2004) found that time spent in a virtual learning environment enhanced the learning experience in general by providing learners more opportunities to remain connected and engaged with the learning process and learning materials even when away from the classroom, resulting in greater learner engagement. This is extremely useful for students who require more flexibility when it comes to attending classes physically.

2.2   *Flexibility in learning*

In a study investigating the benefits and challenges of hybrid courses (blended learning), Garnham and Kaleta (2002), from the University of Wisconsin, Milwaukee, reported that the majority of students were very positive about their blended learning experience, especially due to the time flexibility that it provided. Furthermore, 80% of students stated that they would recommend such blended courses to their peers. The time saved by cutting down on commuting along with the flexibility made this feature the most highly cited positive feature of blended learning modules by students in that study.

In another study conducted on undergraduates taking an English for Academic Purposes course at a Malaysian University, Thang et. al (2013) found that students welcomed the fact that the blended learning format of the course allowed them to learn at their own pace. Similar findings were also reported by Alebaikan (2010) in her study, in a study on using BL which included two Arabic language courses and one introductory English course, and Ja'ashan (2015) for a BL English course using Blackboard at Bisha University.

2.3   *Better learner performance*

Furthermore, the previous study (Garnham & Kaleta, 2002) reported that instructors of the hybrid modules stated that their learners performed better in the blended learning setting that in traditional classroom settings, with quiet introvert learners participating significantly in online discussions and students interacting so much more with heightened levels of enthusiasm. Instructors also found that learners attained higher grades and produced better quality work and were "capable of more meaningful discussions on course material" (Garnham & Kaleta, 2002).

In a study on a blended Spanish course, Jochum (2011) reports that participants enjoyed learning online and were of the opinion that this had contributed to the improvement of their language skills. In particular, participants reported becoming more comfortable in writing in Spanish and taking Spanish online course as a result.

An interesting study titled "Evaluation of a blended learning course: students' perceptions of appropriateness for the development of skills and language areas" by Bueno-Alastuey and Pérez (2014) concludes with the recommendation to "stress the value of using ICT [Information and Communications Technology] in language learning." The authors further state that the usage of ICT tools "could also increase individualized practice and feedback, which are often lacking in big classes …" (p. 524). This statement resonates with the objectives of this study, especially the possibility of providing individualized practice and feedback given the time constraints faced by the teacher, as mentioned previously.

2.4 More reinforcement

In stating the benefits and challenges of blended learning, Vaughan (2007) cites the aforementioned study by Garnham and Kaleta (2002) and a study by Dziuban et al. (2004) that show that blended learning results in better quality of instruction in the form of richer interaction and better reinforcement and retaining of what has been taught. In a study titled "Making the Case for Blended Learning", Boone (2015) refers to a study by Bozarth (2010) that using web-based strategies, including blended learning, "helps learners continue to digest the learning material and make connections about the content between formal learning events and even after the teaching has ended" (Boone, 2015, p. 277).

3 listemaa3.com – Components of the website

To deal with the above-mentioned challenges, the researcher designed and built a website – www.listemaa3.com – that served as an online platform where learners would go through lessons, answer quizzes, hold discussions and receive feedback from the instructor. A total of 12 learners were enrolled in the website alongside a face-to-face class, but only 9 learners participated in the study that followed.

The participants in this study were enrolled in a beginner-level course on Arabic morphology (الصَّرْف). The course ran for a period of 8 weeks. Students attended class once a week, for a period of 3 hours and carried on learning on listemaa3.com throughout the rest of the week. The students were required to do at least one lesson online a week, although they could do more if they so wished. The aim of the teacher when designing the website was for the website to complement the weekly classes. Each component was designed to complement a certain type of activity that was usually carried out in class.

The Arabic morphology course mentioned is a beginner-level course that introduces Arabic morphology to learners, and helps them understand concepts such as 'root letters' (الجَذَر), 'patterns' (الأوزان الصرفيّة), and 'derivation' (الاشتقاق) in Arabic. The objectives of the course included the following:

– Change past-tense verbs to the present tense and the imperative form
– Correctly identify the root letters in nouns & verbs
– Correctly identify the pattern a verb belongs to
– Derive the following forms from verbs: مصـدر الفعل الرباعيّ والخماسـي والسـداسـي، اسـم الفاعل، اسـم المفعول.
– Learn how to understand the underlying meaning of Arabic roots and verb patterns.

Listemaa3.com is a website based on the WordPress framework. It is a platform that carries lessons in various topics in Arabic, targeted at foreign learners of the language who are already enrolled in some type of classroom learning. The website brings together 5 different components, each of which performs an individual function: (1) Lesson component, (2) Quiz component, (3)

Grading and feedback component, (4) Discussion component and, (5) Student Wiki component. The following section will discuss each component and how it aims at solving the aforementioned challenges in light of the literature review presented above.

3.1 Lesson component

The lesson component of Listemaa3.com presents the lesson content to learners. Content can be presented via text, pictures, video or audio. The combination of different presentation means is also possible. This allows for the design of various types of lessons, such as listening comprehension, reading comprehension or grammar lessons. For this particular intervention, the researcher designed lessons related to the teaching of basic Arabic morphology. For example, this lesson shown in Figure 1 introduces learners to the usage of the gerund form *rajaa'* which means "please" to replace the other verbal form of *arjuu an*, which learners were familiar with. The lesson is presented in an inductive manner with several sentences here presented for learners to deduce how the phrase *rajaa'* could be used to replace *arjuu an*.

Fig. 1. A sample lesson on using a gerund form in Arabic – www.listemaa3.com

The objective of this component was to primarily complement and reinforce content that had already been presented in the classroom. Most of the lessons were made up of content that had already been introduced in the classroom, but presented differently. Sometimes, new applications of morphological concepts that were taught in class would be presented in these online lessons. The teacher also did introduce some new content through this component, although this was rare. The teacher hoped that this component would provide learners with more opportunities to remain connected and be more engaged with the course material (Aspden & Helm, 2004). Furthermore, the teacher agreed with the need to provide much-needed time flexibility for his students. Making lessons available online through this component of the website would help in providing such flexibility. The time-flexibility benefit of BL was also popular among students in the study conducted by Garnham and Kaleta (2002). Content presented by the teacher to the learners in the study was in the

form of text, visuals and audio materials. No video lectures were used for this class, although learners subsequently suggested that short asynchronous video lectures be introduced in the future.

3.2 Quiz component

Although the quiz component of Listemaa3.com is meant to complement the previous lesson component, it is still separate from the lesson component. This would allow the teacher to check the comprehension level of students for lessons that were presented in the lesson component or to design and administer stand-alone quizzes not related to any part of the lesson component. Question formats that are available are: multiple-choice questions, fill in the blanks, open ended questions, true and false questions and the option for learners to upload their answers from a file on their device. Once a learner has submitted the quiz, the quiz is then forwarded to the teacher for grading. There is also an option for instant grading for multiple-choice and true and false type questions, as the correct answers to these questions are already set by the teacher when creating the quiz online. An example is shown in Figure 2.
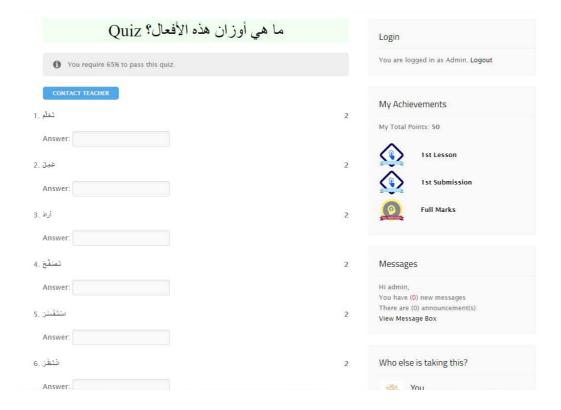

Fig. 2. A sample quiz from www.listemaa3.com

In this example, the quiz shown is titled "What are the patterns of the following verbs?" and a verb is presented for each item and learners are to fill in the blanks with the name of the pattern as covered in the lesson. The quiz component was used to assess learners' comprehension of content that was presented in class or revision content that was presented via the lesson component. Learners had the option of attempting the quiz immediately after going through the lesson or attempting it at a later time of their convenience. The objective of this component is to help deal with time constraints that would usually not leave enough time for the teacher to go through exercises in the classroom and to identify gaps in the understanding of students. Thus, it was the objective of this

component to supplement instruction in the classroom and to overcome time constraints that were faced by the teacher and the students in the traditional classroom. The teacher was of the opinion that this component of the website could represent an effective manner of implementing BL in order to fill understanding and knowledge gaps of the students (Bozarth, 2010).

Furthermore, by doing these quizzes, learners would continue to be engaged in the content material and carry on absorbing it outside of the classroom. Bozarth (2010) further states that "real learning takes place in the space after the teaching, where the learner is able to try the ideas out in his or her real world" (cited in Boone, 2015, p. 277).

3.3   Grading and feedback component

This component allows the teacher to mark and grade the answers in the quizzes. For each question, the teacher is able to award a certain mark. There is also the ability to provide open-ended feedback for each question.

Feedback was given by the teacher for both correct and incorrect answers. Other possible answers for certain quiz questions were also highlighted via this component.
The lesson, quiz and grading & feedback components complement each other. The quiz can be made accessible through a button at the end of the lesson that contains a link. When a quiz is graded, the student is able to view the grades along with any comments that the teacher has made.

3.4   Discussion board

The discussion board on Listemaa3.com allows for learner-to-learner and learner-to-teacher interaction. The discussions that take place on the website are typically asynchronous in nature. This allows learners to take part in discussions at their own convenience. Learners usually ask questions pertaining to the lessons, technical questions and questions about Arabic in general.

As mentioned earlier, the teacher wanted to promote more collaboration among the students in the class. The discussion board was therefore designed for the purpose of achieving this objective.

3.5   Student wiki component

The Wiki component on the website is a venue for learners to come together to create and organize the information that they have been learning. In addition to the previous discussion board component, this component provides learners with the opportunity to collaborate with one another in creating their own reference, notes, and observations on what they are learning.
Students could use the Wiki to create and share notes, summaries of lessons and even write-ups on topics that they felt were relevant to the course material. Once an entry was created, other students could comment on that entry, asking questions about what was shared (similar to a blog) or collaborate in co-editing that entry (similar to a Wiki that allows editing by multiple users).

The teacher hoped that the Wiki component, along with the discussion board, would provide students to interact more with one another and help promote collaboration among the students in the class (Agosto et al., 2013; Boone, 2015).

3.6   Research questions

Based on the aforementioned challenges, the following questions were of interest to the researcher:
1) Does the introduction of blended learning, using Listemaa3.com, help to address the challenges faced in the traditional classroom setting for teaching AFL according to the perceptions of learners?
2) What are the benefits and limitations of each component of the online platform with regards to creating a more effective learning environment in light of the perception of the learners?

4   Methodology

As suggested by Kenney and Newcombe (2011) in a study titled "Adopting a Blended Learning Approach: Challenges Encountered and Lessons Learned in an Action Research Study", the researcher decided to start with a small number of learners in his attempt to introduce and investigate blended learning and its outcomes.

4.1   Participants

The participants of this study were enrolled in a beginner-level course on Arabic morphology (الصَّرْف) that was taught to a class of 12 AFL adult learners as part of 2-year Arabic language program offered in a private higher learning institute in Singapore. Only 9 students took part in this study. All participants were Singaporeans who were studying Arabic as a foreign language. The course ran for a period of 8 weeks. Students attended class once a week, for a period of 3 hours and carried on learning on listemaa3.com throughout the rest of the week. The students were required to do at least one lesson online a week, although they could do more if they so wished.

The Arabic morphology course mentioned is a beginner-level course that introduces Arabic morphology to learners, and helps them understand concepts such as 'root letters' (الجَذَر), 'patterns' (الأوزان الصـرفيّة), and 'derivation' (الاشـتقاق) in Arabic. It is expected that by the end of the course, students would be able to:

- Change past-tense verbs to the present tense and the imperative form
- Correctly identify the root letters in nouns & verbs
- Correctly identify the pattern a verb belongs to
- Derive the following forms from verbs: مصـدر الفعل الرباعيّ والخماسـي والسـداسـي، اسـم الفاعل، اسـم المفعول.

4.2   Instruments

The instruments used to collect the data include a questionnaire and a follow-up interview. The questionnaire, made and administered using Google Forms, includes Likert-scale and open-ended questions (see Appendix 1). These instruments are meant to measure the perceptions of learners towards the blended learning format and the components of the website.

The questionnaire is based on questionnaire items and interview questions prepared and used in two separate studies by Alebaikan (2010) and Al Zumor (2013). In the study titled "Perceptions of Blended Learning in Saudi Universities", Alebaikan (2010) examined perceptions of both female undergraduate students and lecturers in Saudi Arabia. In Al Zumor et al.'s (2013) study titled "EFL Students' Perceptions of a Blended Learning Environment: Advantages, Limitations and Suggestions for Improvement" the researcher investigated views of learners studying English as a Foreign language in a blended learning environment combining face-to-face learning and online learning using the Blackboard learning management system.

The interviews were carried out via email after the questionnaires had been administered and the data elicited from those questionnaires was then analyzed and examined. The interview focused on getting further information for the questions raised in the questionnaire, as the researcher felt that some of the answers provided by participants to the open-ended questions in the questionnaire could use more detail.

5   Results

Table 1. Questionnaire results

No		Strongly Agree	Moderately Agree	Undecided	Moderately Disagree	Strongly Disagree
1	Blended learning made it easier for me to understand new concepts taught in this course	3	4	0	1	1
2	It is easier to get the teacher's exclusive attention when learning online	2	5	0	0	2
3	I learn better from traditional classroom (face-to-face) activities	3	2	1	3	0
4	I prefer the learning style in this course compared to the learning style in other courses	6	2	0	1	0
5	I feel that learning online is only effective if you attend class	5	2	2	1	0
6	Among all the courses, the Sarf course was the most enjoyable as it included online activities in addition to class activities	1	5	2	0	1
7	All other courses should be taught using blended learning	4	4	1	0	0
8	The Sarf course should have been taught like all other courses using face-to-face learning only	1	1	2	2	3
9	It is easier for me to understand new concepts via online lessons than in the classroom	0	0	2	4	3
10	Classroom lessons are more interesting than online lessons	3	2	4	0	0
11	The website provided me with more opportunities to put what I had learned into practice as compared to the classroom.	3	4	0	2	0
12	I like blended learning because I can learn according to my own pace.	6	2	1	0	0
13	When learning online, I feel that I am more responsible for my learning than when in a traditional class	6	2	0	0	1
14	Traditional learning in a classroom offers me more flexibility than blended learning	0	1	2	1	5
15	I benefit from the feedback given by my teacher through the website	5	2	1	0	1
16	I find it difficult to access the website (if yes, please state why)	0	0	1	6	2

The following is a summary of the results from the above Likert-scale questionnaire:

1) Overall there was a very favourable response from learners towards the introduction of blended learning in the Arabic classroom. Learners welcomed the following features of the blended learning format: 1) More reinforcement of material learned in class, 2) personalized feedback on quizzes, 3) more time to learn and absorb content throughout the rest of the week, 4) opportunities to interact with the teacher and other classmates outside of the classroom via the discussion board, and 5) Self-paced learning and autonomy.

2) The aforementioned positive response was also coupled with some reservation on the learners' part when it came to 'interaction' and 'learning new content'. When it came to interaction, learners rated the F2F lessons higher than the online lessons and stated that "they found F2F classroom activities more interesting than online ones" (Yassin, 2016, p. 47). Learners also believed that the online lessons were more suited to reviewing and reinforcing material that had already been taught in the classroom, as compared to introducing new material.

3) The results of the study also pointed out that learners who attended the F2F lessons regularly found the blended learning format to be more effective, compared with participants who did not attend the F2F lessons as regularly. Those who missed a few of the F2F lessons even reported feeling

slightly frustrated when doing the online lessons as they felt that they had missed some important parts of the lesson that were taught in the classroom.

4) Negative responses on the blended learning format centered on technical issues pertaining to logging on to the website, a lack of familiarity with the website, and typing with the Arabic keyboard.

Table 2 contains a summary of responses regarding the individual components of listemaa3.com elicited from learners during the interview that followed the administering of the aforementioned Likert-scale questionnaire. Also included are some brief comments on each point. his study is subject to the usual caveats on the limitations of case studies, in particular the difficulty of knowing whether these learners' experiences are typical of students who share the same broad experience of out-of-class ER in a second language. Therefore, we would like to collect further longitudinal data from a wider range of cases in both JSL and JFL environments. Furthermore, even though the ER sessions were held collectively, we did not investigate their socio-interactive aspects, such as whether and to what extent participants benefited from interactions with the facilitator or other peers. Investigating such issues would contribute to our understanding of the socio-interactive benefits of ER for learner autonomy. Some of our participants continue to engage in autonomous out-of-class ER; it would be worthwhile to continue our investigation of such long-term autonomous extensive readers longitudinally in order to fully understand people's out-of-class ER and out-of-class learning more generally.

Table 2. Summary of responses by learners

	Number of active users	What learners liked about it?	What learners did not like?	Discussion
Lesson, quiz and feedback component	9/9	• Flexibility and learner autonomy • Provides useful summaries for what has been covered in class. • Well-suited for revision and provides opportunities to revisit and practice what has been learned • Individualized feedback that learners' could follow-up on at any time in an asynchronous manner	• 2 learners felt that the format of lessons and quizzes required some time to get used to. • More interactivity is needed for content delivery, e.g. short-videos presenting content, instead of text • May not be as effective as F2F for introducing new concepts.	• A familiarization lesson/module for the online website is necessary. This lesson/module will introduce learners to how to navigate the website, set up an Arabic keyboard, a few simple trial lessons for familiarizing learners with the format. • Feedback from the learners and the teacher's observation of other websites that provide blended/online learning show that presenting content in the form of videos will be more effective for leaners. • As of now, the course is structured in such a manner that the online lessons compliment and reinforce what is learned in class. The online lessons have not proved to be as effective in introducing new content to the learners. Learners prefer

				F2F format for introducing new content.
Discussion Component	5/9	• A good platform for learners to discuss lessons and quiz questions with each other and the teacher. • Asynchronous nature of the discussion board allows everyone to take their time in reading through what others have said, to think it over and reply at their own convenience. • Discussions last several days, allowing learners to think more deeply and thoroughly about topics that are being discussed.	• Typing and using Arabic requires time to get used to. • Discussion board must be visited at least once a day in order to keep up with the discussion, or else one may "feel lost."	• Familiarization with the Arabic keyboard is a must, especially if discussions are encouraged to be held in Arabic as much as possible. Familiarization with the Arabic keyboard must be inserted into the learning process if online discussions are to be more successful. • Learners who did not attend class seem to participate less in the discussion board, despite having more need to catch up with lessons that have been missed. It appears that some learners feel lost when discussing issues that were mentioned in class and feel hesitant to ask the other classmates about these issues. • In order to encourage more active participation, perhaps a reward system (points, badges, etc.) should be introduced into the online discussion board platform.
Student wiki Component	2/9	• Good for learners to learn how to create their own reference and organize information. • Ability to create entries based on discussions and to learn and benefit from the entries of others. • Allows for everyone to "be on the same page", in such a manner that one would be alerted if they missed out on a certain piece of information during the learning process.	• Requires more time to be spent online. • Formatting of information takes time.	• This component does not seem to receive as much participation as the lessons, quizzes and discussion board. • Learners appear to cooperate with one another via discussions on quiz questions, but not on creating Wiki entries. • Learners need to be encouraged to participate and use the Wiki more. It is hoped that by doing so, learners will reap the benefits of cooperative learning and become more 'responsible' and 'autonomous' in their learning.

6   Discussion

The above results highlight that the decision to change the format of the class to a blended-learning format was a correct and successful choice overall, based on the response of the learners and the teacher. The blended-learning format did succeed in addressing the aforementioned challenges noted by the teacher prior to implementing BL.

6.1   Lesson, quiz and feedback component

As learning took place only in the classroom prior to introducing BL and the F2F classes were only held once a week, the online lessons allowed for learners to stay in touch with learning Arabic throughout the rest of the week until the next lesson. Learners had more time to undertake lessons and quizzes that would reinforce what had been taught in class and could interact and discuss with their other classmates and the teacher throughout the week. This component thus, did help encourage learners to be more engaged with the learning material (Aspden & Holm, 2004).

Similar to what was reported by Garnham and Kaleta (2002), the participants of this study also highly appreciated the flexibility and autonomy that comes with the presentation of lessons and quizzes in such a format. These components of the website helped the teacher overcome: 1) time constraints, 2) little reinforcement, and 3) lack of individualized feedback. By having lessons online, in addition to the classroom, the teacher could focus on interactive activities and introducing new material in class, while leaving extra practice and re-enforcement activities to the online lessons. It is important to note that unlike flipped classrooms, the online lessons in this course were used to mainly re-enforce what had been learned in class and provide learners with the opportunity to practice more.

6.2   Discussion board component

This component of the online lessons helped to promote cooperative learning among students and helped the teacher overcome the challenge of learners learning individually and not collectively. A similarly finding was mentioned by Agosto et. al. (2013) in which blogs were found to promote a collaborative learning environment, in the form of interactive discussions that took place as a result of learners following and commenting on each other's blogs found. Likewise, in this study, the teacher found that when faced with a challenging question in an online quiz, learners would discuss with one another on the discussion board about the particular question and try to find ways to answer it. According to the teacher's observations, the discussion board played an important role in forging a sense of 'being part of a learning community' among learners. This feature of the website complemented the lesson and quiz feature and ensured that learners moved towards learning collectively, instead of individually.

The discussion board logs show that out of the 9 subjects, 5 learners participated actively in the forum, asking and answering questions and putting forth suggestions. The remaining 4 learners, would most of the time follow the discussions passively and sometimes participate by asking questions. However, they never answered or suggested an answer to any questions in the discussion board. This could be due to the fact that some students considered themselves to be reserved and introverts (Yassin, 2016).

A challenge to making full use of online discussion boards for this class of AFL learners was the lack of familiarity with the Arabic keyboard. This was mentioned by at least 4 learners. Due to the lack of a physical Arabic keyboard or stickers for the Arabic letters, learners either reverted back to using English or a form of Arabizi or romanized Arabic (see Allehaiby, 2013). As studies have shown that using Arabizi might have negative effects on the learning process of AFL leaners (Allehaiby, 2013; Attwa, 2012), it is important, therefore, to familiarize learners with the layout of the Arabic keyboard prior to holding discussions on an online platform. Furthermore, teachers of AFL are encouraged to "find ways to integrate Arabic script into CMC, and, more importantly, to

technology planners to find platforms and systems that encourage the use of the Arabic keyboard…"(Attwa, 2012, p, 50; Essawy, 2010).

6.3   Student wiki component

This component was the least used component in the online website among the learners. The purpose of this component as initially intended by the teacher was to encourage learners to collaborate with one another in order to create their own wiki that would serve as a resource for them and other learners in the future. It was hoped that by participating actively in the Wiki, learners will learn "how to construct their own schema for internalizing the information and organizing it so that it becomes their own", as suggested by the constructivist model (Costa, 1991; Day 1981; Worsham, 1988, cited in Askew & Lodge 2000, p. 9).

Unfortunately, only 2 learners actively participated and contributed to the wiki. These learners saw the wiki as a means for them to learn how to structure and organize what they had learned and to learn with other learners. However, in addition to some technical challenges in formatting, they felt that contributing to the wiki required more time than they could spare. This could be one reason why the other 7 learners did not contribute to the wiki on *listemaa3.com*.

It has been noted in the literature that one of the challenges of blended learning is the increased amount of time that is required not only of the learner but the teacher as well. Therefore, the teacher feels that there is a need to find other ways should be found to encourage learners to participate in such wikis. One possible way would be to award points or even digital currency (e.g. STEEM, a "blockchain-based social media platform" that rewards writers for posting good quality content) to learners as they participate and collaborate in creating entries in the wiki. As mentioned by Graham, Allen, and Ure (2005), "when institutions decide to utilize both learning environments (F2F and BL) for a single course offering, the time demands of the instructor or trainer increase because now instructional materials must be developed for both CM [computer-mediated] and F2F environments. Additionally, instructors and trainers typically incur an increase in time they spend interacting with learners in BLEs." (p. 257).

6.4   Implications for future implementations of BL and areas of improvement for course design

The following are some key observations that will be useful to other practitioners who intend to embark on introducing the BL format to their classrooms:

(1) Introducing BL promotes problem-based learning (e.g. student wiki) and teaches learners to be more autonomous and responsible for their learning. BL may also be more helpful for teachers promote cooperative and/or collaborative learning and create a more 'constructivist' learning environment, given the nature of online space (Huang, 2002). As such, it is important for the teacher to convey these matters to the learners and to create awareness among them as to of how introducing blended learning in the classroom will shift more responsibility to them. One of the barriers of successful implementation of BL is that BL requires strong self-discipline on the part of the learners (Collis, 2003). It has also been observed that some learners may have the tendency to procrastinate in blended learning settings (Leh, 2002). Implementing BL, especially for those who are used to being passive learners in traditional F2F classrooms, requires a change in mindset and learning style.

(2) Using the BL format to teach Arabic as a foreign language brought to the attention of both the learners and the teacher the need to provide learners with the opportunity to interact with Arabic in technology tools (e.g. Arabic keyboard, online fonts, etc.). This was understood by the learners when they realized that writing answers and interacting with their peers online required familiarity with the Arabic keyboard, which is not based on typing using the Romanized keyboard. With the ubiquity of technology in everyday life, if AFL learners are to be encouraged to communicate online and via text messaging using Arabic, then attention should be paid to providing them with opportunities to familiarize themselves with these tools in Arabic.

(3) Applying the BL format requires a significant additional amount of time to be spent on part of the teacher, especially in the early stages, as well as the students. So while a commonly mentioned benefit of BL is 'convenience of access', it should be noted that one of the significant challenges at the same time is 'increased demand of time' (Graham, Allen, & Ure, 2005). A significant limitation that was encountered along the way of implementing BL in this study was the issue of familiarization with the website and some aspects of using it. Learners mentioned that their participation in online activities was affected by lack of familiarity with the Arabic keyboard and how to format their entries in the wiki. It should be noted that in their study introducing hybrid courses at the University of Wisconsin, Milwaukee, Garnham and Kaleta (2002) spoke of the importance of introducing learners to the technology in the initial period of the course:

> All participating instructors agreed that the first week of class should be dedicated to technology, especially since some students were concerned that they lacked the necessary technology skills and access to fast modem connections. Some students dropped the hybrid course because of their fear of the technology or the perception that the course would be more work than a traditional course. (Garnham & Kaleta, 2002, para. 12).

(4) The manner in which BL was applied for this course showed that the online lessons on listemaa3.com were more geared towards supplementing the F2F sessions. Learners still preferred for new content to be introduced in the classroom and not online via the website. They still felt that the classroom lectures were more 'interactive' compared to the online lessons. This is one of the limitations of the aforementioned components. Based on the teacher's experience, learners did not absorb newly introduced concepts as well online as they would in the class. Looking at the suggestions made by learners, they felt that new material would be better absorbed if there were accompanying short videos.

As recommended by learners, perhaps the introduction of asynchronous video lectures in future designs of the lesson component will be one step towards transforming the learning format into a flipped classroom format, in which activities that have "traditionally taken place inside the classroom now take place outside the classroom and vice versa" (Lage, 2000, p. 32).

The institution in which the researcher implemented BL did not have a framework or any policy to support BL-style classes. Therefore, the researcher therefore undertook the task of implementing BL on an individual and personal basis. Implementing BL successfully on a much wider scale for AFL classrooms in Singapore would require strong commitment by Arabic language centre owners and institution leaders in addition to important policy revisions. It is expected that significant organizational changes would have to be made for BL to produce its desired results in AFL classrooms in Singapore. Further perspectives on the importance of institutional support and strategies for administrators to introduce blended learning can be found in Vaughan (2007) and Boone (2015).

7   Conclusion

This study has sought to find out if the introduction of blended learning, using Listemaa3.com, would help the author overcome challenges previously faced in a traditional classroom setting, The decision to implement a BL format for the aforementioned class of adult AFL learners did indeed contribute to a more effective learning environment, based on the perception of the learners as well as the teacher.

Furthermore, this study has highlighted the benefits of the various components of Listemaa3.com, and how these components helped the teacher to overcome challenges of the traditional classroom setting. The study concludes by mentioning some observations and findings in implementing BL that may be of use to other such implementations.

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