

DOI: <https://doi.org/10.24297/jal.v11i.8654>**Language Learning Difficulties Reported by Beginner-Level Learners of Arabic Using Online Tools**

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Abstract

This study examined how two classes used online supplementary material to learn Arabic and the difficulties they reported in the process of their learning. The two classes have a total of 33 students who completed the course. The data from their weekly journal entries and log information from the site where the material was housed are used to describe the extent and the ways in which students used the material and issues they faced learning Arabic. Results show that students in both classes spent roughly 265 hours practicing Arabic with an average of 8 hours per student throughout the semester and that vocabulary recall and pronunciation were key struggles in their learning. Furthermore, this paper discusses some of the themes that emerged of students' journal entries about their learning Arabic. Further implications are provided and discussed.

Keywords: Arabic Language, Online Learning, Beginner-Level, Language Learning Difficulties

Online learning: Growth in Arabic Learning and meeting the demand

The recent growth and interest in Arabic (Taha 2007; Allen 2007; Abdullah and Al-Battal, 2010) has driven the need for material and curriculum development. This growth necessitated resources (which were largely unavailable) for Arabic language learners who come from a myriad of social and educational backgrounds. Abdullah and Al-Battal (2010) reiterate the same fact that growth in Arabic programs which resulted from consistent increase in interest in Arabic could not cope with the record level of demands. While new courses and textbooks have been created since to respond to this increase (Ryding, 2013), the resources available remain limited in scope and mode of presentation, which is also true of online resources. In surveying 209 teachers of Arabic in the US, Abdullah and Al-Batal found that most teachers of Arabic acknowledge the lack of level-appropriate resources for students to use, in particular outside of the classroom, where little coaching is available to students as they navigate online materials on their own, dissecting what can or cannot be used. In addition, the survey indicated that material development was ranked the most pressing need facing the Arabic language teaching profession. In discussing the importance of finding relevant supplementary materials, Ryding (2013) argues that when carefully selected to supplement a selected textbook, supplementary tools are invaluable (82). Ryding notes that while incorporating technology-based tools can assist learners, considerations need to be made as to the appropriateness of the material to students, and the context of learning to reflect pragmatic decisions of the learners and the teacher. Hence, there is a need to continue to provide and evaluate resources for learners of Arabic to meet the demand and the diversity of learners.

Since the early days of language learning, technology in its various manifestations has transformed the way people learn. Over the last decade, language learning existed with some form of technology as the field witnessed more content being developed for languages including Arabic. The development of Arabic software is, however, a time-consuming endeavor (Belknap 2001, Bush and Browne 2004). Alish (2001) discussed thorny issues in designing online learning courses, particularly pedagogical issues and technical constraints for the less commonly taught languages. Alish argues such attempts at creating and implementing distance-learning courses can be resource intensive, and also unpredictable, a result of changing variables and dynamic constructs (347). In the case of Arabic, it can be issues relating to technical considerations as well as the outcomes expected from such designs. Belknap (2001) also pointed out similar considerations in developing software for Arabic. Aptly characterized as belonging to three general strands ('homes-spun'- created by individuals, 'quick-cash'



commercial, or 'big-brother' large scale government funded projects), Belknap notes that despite the new possibilities of the web and of the machines using the web, there has not been a clear standard authoring system that would facilitate the development of next-gen language learning software (p. 365). Fast forward to 2013: the technology is better; ten-fold better. The devices and the software are as diverse and capable, more affordable, and more user friendly. Research indicates that as of 2012, 67 percent of US college students use smartphones, and almost a third of that number have owned a device while in high school (Croy 2012). There has been consistent progress made in software created for Arabic, and content developers for Arabic in particular should celebrate the current technology more than other language content developers. Henry and Zerwekh (2002) state that while there has been increased support for language learning, CALL applications have far been created to support Western languages. This, however, is no longer the case. More support for Arabic is available today than in any time in history. Constraints of the past (Arabic fonts, rendering Arabic, right-to-left alignment) are mostly handled today, thanks to years of innovation and advancement. According to Bush and Browne (2004)

"The advent of the Web provides materials developers the incredible possibility to take the dream that has been emerging for the instruction of Arabic over the past 30 years and finally make it a reality. Virtually all personal computers sold today come standard with a Web browser that will correctly render materials created in accordance with the Unicode standard." (p. 517)

Ryding (2013) indicates that technology can provide worthwhile language learning in the context of a thoughtful conceptualization of the learning experience which involves the learners, the course, and the teacher. Ryding also acknowledges while there is great potential for implementing technology-based resources in Arabic classes today, and despite the leaps made in technology that now accommodate non-Roman-based alphabets, computer development for Arabic learning "is still catching up" (p. 84). The bulk of software created for Arabic has lent itself to tasks that can be accomplished outside the class such as drill-type and grammar exercises that can be easily handled by a computer (Allen 1993; Belknap 2001; Nielsen and Carlsen 2003; Cushion & Hémard 2003; Corda and Stel 2004) so more time is spent using the language in the classroom. Generally speaking, these types of activities are the easiest to design and implement, and require less groundwork. In addition, they take advantage of written material that can be easily replicated by the computer or digitized. Ditters (2007) notes that the available resources for learners of Arabic today through technology are legendary in terms of quantity. Citing several companies that have specialized in creating tech-based tools for learning Arabic, Ditters argues that there is far more material today for Arabic than before. However, it is important to note that while the available resources for students to learn Arabic through technology have increased, Ditters (2007) , as does Ryding (2013), argues that it is duly important to separate quality material from others, acknowledging that for some learners, this large amount of tools can still be beneficial. Recent projects in creating resources for Arabic are promising. The University of Texas at Austin's *Aswat Arabia* represents an example of quality work that meets the various needs of learners of Arabic at different levels of language proficiency, in areas that traditionally have not been available to students of Arabic. In short, despite the recent innovations, capabilities, and resources, Arabic's utilization of the innovation has been limited.

Learning Arabic: Past the barriers

It can be fair to say that for some learners of Arabic, the difficulties begin before the actual learning process. The literature has documented the 'potential' difficulties students of Arabic will face, not because of what we know from the field of second language acquisition, but simply because they are learning Arabic, suggesting other languages might likely be more immune to difficulties in grammar, vocabulary, language use and other challenges that characterize general language learning. Stevens (2006), for instance, discussed the popular belief of the 'Spanish is easier than Arabic', showing how generally people assume one language to be easier or more difficult to learn than another. Stevens also noted the United States Foreign Service Institute's ranking of Arabic as a difficult language to attain proficiency in as a practice that feeds these common beliefs. There are documented challenges that learners of all L1 backgrounds face. Emphasis in the literature has been given to the acquisition of grammatical features whose order of acquisition has been shown to be largely predictable. In addition, despite its importance, lexical acquisition has over the years underscored the importance of learning vocabulary in context, ones students would find useful in authentic language learning situations (Nation 2001;



Laufer and Nation 2012; Tomasello 2003). Thus, these issues will be of importance to learners of Arabic simply because of their universal effect. Ryding (2013) has outlined general areas of difficulty that learners of Arabic face in several domains (listening, speaking, reading, and writing), such as the acquisition of sounds foreign to native speakers of English (the pharyngeal fricative ʕ) among others. Other studies have examined difficulties learners of Arabic face with graphic-phoneme representation in their spelling development (Russak and Fragman, 2014), and even more predictably, issues with writing in Arabic as Hedayet (1990) did, investigating issues such as transfer problems. Pedagogical issues aside, learners of Arabic and Arabic programs also face additional challenges. In her informal survey of her students of Arabic, Ryding (1994) stated that not only could students not think of role-model speakers of Arabic, but Arabic programs are constantly in survival mode because several students (Ryding says half) do not continue beyond the first year level (which can also be an issue other foreign languages face to varying degrees). As these difficulties of learning are anticipated, a question presents itself: How can online tools assist learners with these issues?

Background: Does Online learning work?

Research has mostly shown results that favor online learning, a term whose definition has changed over the years. For those of us who have been paying attention to online learning, or learning that happens online, it is difficult to imagine a classroom today where some form of online learning, whether within a formal or informal context, does not take place. Several terms are being currently used to refer to different modifications of the term, including blending learning, hybrid learning, distance education learning, to name a few. The discussion of this misnomer falls outside the scope of this paper, and the focus here will be limited to online learning that takes place on the web as part a formal learning context within an institution of learning. The two main types of online learning studies reported in the literature are either fully online courses or traditional (face-to-face) courses with an online course component. In a study examining a solely distance education course, Glisan, Dudt, and Howe's (1998) study of students learning Spanish concluded that it was feasible to teach Spanish via video conferencing. The study found that even in the absence of the teacher, the program delivered opportunities for students to learn another language, which would not have been possible without the video conferencing technology. Benson & Wright (1999) attempted to determine whether online components that focused on reading, writing, and research could enrich the language classroom and the interaction quality among students and the instructors. Results of this research which fused the traditional classroom with online activities indicated that using the online tools helped promote critical thinking and that the online material was effective despite the technical difficulties students faced when completing assignments. Osuna & Meskill (1998) examined learners' perception of using the internet to practice language material that corresponded to textbook items using a Likert-scale questionnaire. Findings indicated that the internet was an excellent tool for teaching a foreign language. Online material is also important especially in contexts where students do not get a chance to practice the TL. Research shows that while instructors use the target language, students use it less because of the anxiety to speak in the class and lack of opportunities to practice (Levine 2003). Hence, evidence exists that online tools can be used to complement the class.

The 'Availability' of online material

Students enrolled in language courses are increasingly accessing language learning material via different modalities. There are *YouTube* videos virtually on every topic, albeit generally in unstructured form, that students use to learn Arabic. Increasingly, students are accessing Arabic language material via their mobile devices and tablets, and most have constant access to the internet. The sources students access online are diverse. Some are intended for improving speaking; others for listening; a few for vocabulary development. Little is available for writing (Abdullah and Al-Battal 2010). Yet, the fact remains that students who are looking for ways to improve their Arabic do tend to look outside the classroom for additional practice and learning resources. Ryding (2013) has emphasized vocabulary and pronunciation as two areas of learning (p. 121) that can be provided to learners online. Thus, the question should not be whether use of online material is effective, but whether or not there is online material that supports the diverse language learning needs and backgrounds of students. In an ideal world, learning should not stop after students leave the classroom. While teachers do encourage students to



access additional material that would support the kind of learning that takes place in the classroom, students usually receive little to no coaching on what to use, what can be beneficial, and what is within their proficiency level outside of the classroom. Students sometimes get discouraged when they go online trying to watch a video of native speakers in a conversation, only to find out that their abilities are nowhere near the level needed to understand the available material. In the case of Arabic, the problems can be exacerbated, for several reasons including the various Arabic dialects in use. For dedicated students, it can be crushing when all the learning in the classroom cannot help them understand basic simple natural dialogues in Arabic. As one student noted "I've tried finding *YouTube* videos, but most of them are just counting from 1 to 10, and even those are difficult to follow because they don't give the English translation and have a lot of additional dialogue I don't understand" (MP, Week1, Class B). Students of Arabic can be at a disadvantage when it comes to language learning resources and particularly on the web. Another problematic issue when it comes to matching learners with appropriate learning resources whether they be online or traditional print, is that the learner, the language being learned (the variety of Arabic in questions) and the resource are not homogenous static entities. Not all learners are apt to online learning tools. Hubbard (2013) argues that "Given the already stunning—and growing—number of technological options for language learning, teachers working with both established and emerging applications for learning tasks and activities face the problem of how their students can use them most effectively" (p. 162). Language varieties of Arabic embedded in online learning differ from place to place. The diaglossic situation of Arabic is often presented as yet another piece that complicates the Arabic learning narrative. Khazaal (2010) describes the limited usability of the online materials available on the web, including *YouTube* videos, music clips, and websites. She argues that because they feature different Arabic vernaculars, their usefulness in the classroom is limited. Logistical concerns need to be addressed as well as pedagogical ones; Ryding (2013) recommends teachers reflect and respond to several questions that help in making informed decisions on the appropriate, disciplined use of online tools, including whether or not the implementation of technology within the context of the class is seamless and can be supported by the institution.

Online Tools and Learner Fit

Not all language learners possess the skills that enable them to take advantage of online learning. Lai and Morrison (2013) argue that in the current technology rich student-centered learning environment, students are taking stock of their learning and shaping their learning experiences. This student-centered approach is bound to determine the outcomes of the learning experiences. Thus, according to the authors, "the success of this approach rests on the assumption that students have the skills, whether cognitive, metacognitive, or social, to help them fulfill the roles they assume" (p. 154). In other words, being able to use a computer does not lead to successful integration of the technology and thus improving language learning. Students who can utilize the technology to learn possess far more skills than required to operate a computer. (Kennedy, Judd, Churchward, Gray & Krause 2008; Kirkwood & Price 2005). In the real world, students have varying degrees of ability and readiness to take advantage of this technology-rich and student-centered approach (Corrin, Bennett & Lockyer 2010; Johnson, Levine & Smith 2009; Jones, Ramanau, Cross & Healing 2010). Many of the students who succeeded in distance education have skills that go beyond being able to complete basic computer tasks. (Benson & Voller 1997; Lai & Gu 2011; Sheerin 1997). Fittingly put by Figura and Jarvis (2007), "technologies can be effective if they are in the hands of students who know what to do with them (p. 457).

the impact of online learning and Difficulty of Tracking Learner behavior online

A critical understanding of what students do online can contribute to effective design and planning of how online media can be utilized for language learning. This does not refer to a conceptual practice of how students' cultural and learning style influence what they do online, but refers to the very specific acts of their online learning behavior, i.e., the sites and tools they access, frequency of use, and the like. Students of Arabic often use *Google Translate* to translate words, phrases and chunks of phrases, and even whole paragraphs. Students watch *YouTube* videos, access sites where they can create Flash cards to practice vocabulary, and access Arabic newspaper sites. However, little is known in terms of how long they spend on each activity, or how they find resources to support what they are learning in the classroom. For example, how do students search for online



media? Do they use the class as a spring board? How likely are students to search for “passive voice in Arabic” if the lesson that day in class was about the passive voice? Will the kind of lessons influence the kinds of materials students search for? How likely are students to search for these if the course provided online supplementary materials for students targeting these areas? Answering these questions will help inform the design of the best tools that will fit students’ learning profiles and fit the kind of learning teachers want to see take place.

Description of the Online Supplementary Tools in the study

The learning activities were housed within the Learning Management System (LMS) environment provided by the university, which is a learning-based content management system where course material and learning interactions are housed. It is an environment where students access their grades, submit assignments, and download information and materials about the course. It can be compared to Blackboard and other similar environments. The learning activities can be divided into four main parts: Vocabulary building, pronunciation practice, reading, and grammar. The learning activities were based on the actual material that students worked on in class. The activities include listen-and-repeat type, where the users clicks on the word to hear its pronunciation, learn its meaning, and see how it is written in Arabic. The tools provide activities to help students practice pronunciation and spelling such as asking students to identify the sounds of a word as in

Figure 1.



Figure 1 Pronunciation and spelling activities

Short reading essays were implemented where students can view the reading essay, click on each word to hear how it is pronounced and see its meaning, and could take a comprehension quiz by answering questions about the text (Figure 2). The grammar section provides practice with key grammar points through guided practice in a multiple choice format where the student is presented with a multiple choice question and is asked to provide the correct answer. Help menus provide students with additional commentary on the grammar point in questions to help students understand how the correct answer was selected.



Figure 2 Reading essays used in the online tools

Study Design and Participants

Data in this study come from two beginner Arabic courses for a total of 37 participants. None of the students in the classes were heritage learners of Arabic. Cases of students who did not access the online supplementary materials were removed. The final number of cases examined were 33. These numbers reflect the number of students who completed the course, and do not include data from students who dropped or withdrew from the class. Most of the students are traditional students, those who finished high school and entered college. The students were mixed; freshmen, sophomore, junior, senior, and non-traditional students; non-traditional students are those who are returning to college after having had a career. The participants (freshmen and sophomores) are at a regional university of roughly 17 thousand students. The department offers majors and minors in several world languages. Data come from three main sources: The numerical log data collected by the learning management system of the amount of time students spent using the supplementary material, the journal entries the students wrote over the course of the semester, and the students' final grades in the course. Each student was asked to write a short journal entry about their learning Arabic, things they are learning without difficulty, things they are struggling with, and were also asked to briefly discuss strategies they identified as helpful in learning Arabic.

Results and Discussion

In what ways did the students use the online tools to address their language learning difficulties? The students in both classes spent more time on the tools provided within the LMS system than they did on outside resources as can be seen in Figure 3 (number of **references** students made in their journals of using LMS resources). This could be because the LMS content is tied directly to the material students learn in class as well as a de facto 'instructor-sanctioned' tools designated as helpful by the instructor. According to students' journals, the use of LMS material was ranked the highest in terms of strategies to dealing with language difficulties. The LMS material provides students with practice opportunities in vocabulary, spelling, reading, and pronunciation.

Despite the LMS tools being the most used, students overall did not spend considerably a lot of time using these resources.

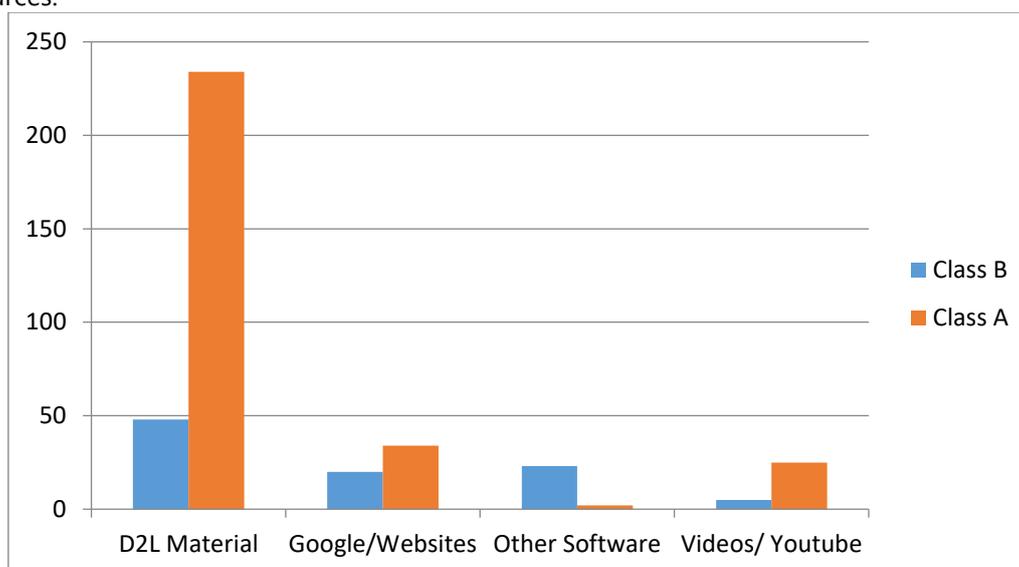


Figure 3 Usage of online tools

As Figure 4 shows, over 60 percent of the students spent between 0-3 hours overall throughout the semester (which roughly translates to about a minute and a half a day¹). It must be noted that students were not required to use the online tools. They were shown how to access the material, and how to use the tools to support their learning. Beyond that, no additional 'encouragement' was provided. The students in both classes were relatively similar in the amount of time they spent using the online material. The average amount of time spent on the online material was 210 minutes (Class A), and 239 minutes (Class B). **Error! Reference source not found.** shows a comparison between the two classes in the amount of time spent (in minutes), number of visits, and their final grade in the course. Why did 60 percent of students spend between 0 to three hours online during the semester? The average time per day students spent using online resources can be strangely deflating for technology practitioners at first. It is important to keep in mind that most students did not consistently log on to practice or use these resources. Students seemed to use them on an as-needed basis which explains certain surges in usage on exam days, and when starting new chapters. Hence, for those who spent an average of a minute a day, perhaps it would make sense to think that they did not actually log on for a minute and then leave. They perhaps logged on to prepare for an exam, quiz, or presentation, or any of the other assignments they were required to complete.

Results also showed that the amount of time students spent on the online material did not significantly or positively correlate with their final scores in the class. The correlation is close to zero and insignificant ($r = -.361$, $p > 0.05$). The correlation calculated includes students who passed (26) out of the 33 participants included in the research. The only significant measure of association was for the number of times students visited the site and the amount of time they spent. The correlation for that is positive and significant ($r = .824$, $p < 0.01$). If students' use of online tools did not lead to learning, then how can the creation of online tools be justified? This, again, could be explained by taking into consideration the time students spent was not part of a structured strategy students employed. Students' access of the LMS site was need-based. Students did not obviously plan pockets of practice sessions during specific hours to help them learn. Instead, the use of the tools was dependent on students' sporadic access of the site, which similar to cramming for exams, is not directly tied to better final grades in the course. Different abilities may mean different online activity. In practice, students do not use up class time equally. Some students participate more than others, and unless a teacher forces every student to participate, participation varies considerably between students. The same pattern is reflected in the online

¹ 16 weeks times seven days a week equals 112 days.

environment. There was no significant difference between the two classes in the amount of time they spent using the online supplementary material, the number of visits, nor their final grade. The average number of site visits to the online material was roughly the same (27 visits per student per semester in class A, and 28 visits per student per semester in class B. Students' average final grade in the course in class B was 81 compared to 71 in class A. **Error! Reference source not found.** presents the average time spent in minutes, final grade, and visits for each class.

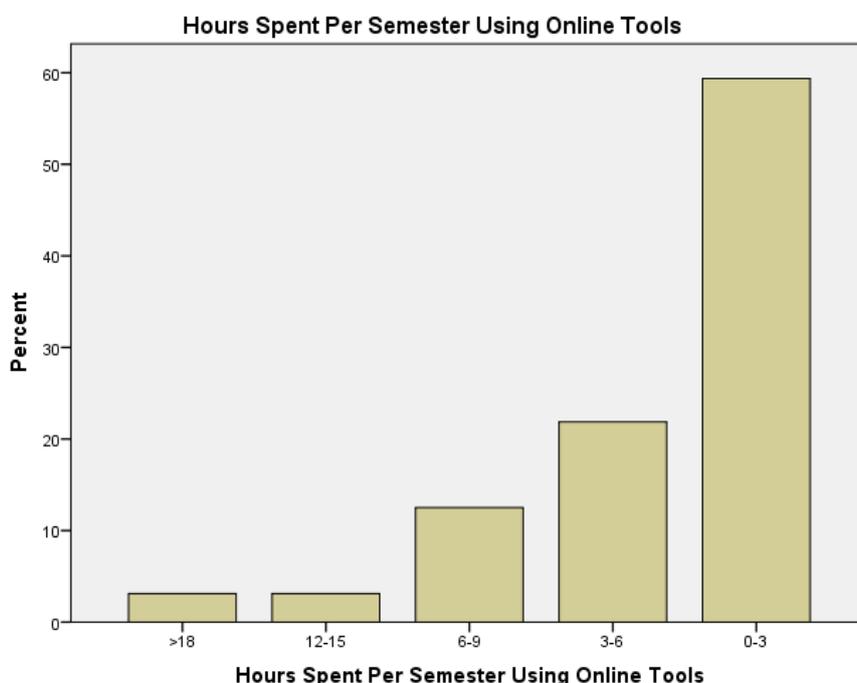


Figure 4 Hours spent using online tools over the semester for both classes

Difficulties Reported

Each student was asked to write a short journal entry in English to reflect on their learning. For each entry, the students were asked to briefly discuss strategies they came up with to help them learn Arabic, in addition to the difficulties they encountered while learning Arabic. Based on students' journal entries, the following data emerged. First, vocabulary recall was the area of most struggle students reported in their entries in both classes, followed by sound recognition/pronunciation as can be seen in Figure 5. Excerpts indicate that students difficulties with sound recognition/pronunciation were mostly with sounds unfamiliar to them, those which do not exist in English. As one student noted

"I'm having more problems with the letters and pronunciations than I thought I would have. I have been looking online and finding websites with pronunciation and letter forming help, so that when the time comes for our quiz I will know what I am doing" (KM, Week1, Class B).

The pronunciation of letters was a common thread as can be seen in the following entry "This week I have been struggling with the pronunciation of letters. I know what sounds they make but I am having trouble recalling them as quickly as other students or as quickly as you seem to want us to" (KL, Week1, Class B). The difficulty with sounds meant some students could not recognize a given word simply because they could not recognize the sound as this excerpt shows

"I often mistake certain sounds for others. Say there's a word that begins with a 'k' sound, it will sometimes take me 5+ hearings of the word to realize that it begins with a 'k' and not any other sounds. I though the word for 'shirt' started with a 'p' for the majority of a class. Again this problem is easily remedied by practice and knowing the alphabet so I can read the word and piece together it's pronunciation myself after hearing it." (JK, Week 1, Class B).



The difficulty in pronunciation of sounds was common for most students in the early weeks of the semester, specifically, from the first day of class till week 3. The following comment reflects this theme "Pronunciation is still a big obstacle for me. I have little difficulty understanding the meaning of the words that you say but when I try to say them myself I overthink it and get tongue-tied" (ER, Week 1, Class B). The same student commented on the difficulty with sounds in week 2

"I am having a bit of difficulty with remembering exactly how the vocabulary words we learned dealing with clothing and possessions are pronounced. Pronunciation is actually an area of difficulty all around. Up until yesterday when hearing "Nice to meet you" in Arabic, I was hearing a "d" sound at the beginning and later found it starts with "t" sound. (ER, Week 2, Class B).

Students from both classes had difficulty with pronunciation as noted in this excerpt by a student from the class A "Over the week I learned how to write the Arabic letters and practiced pronouncing them the correct way. I struggled with the letters that had similar sounds but as I practiced they became more clear to me." (AW, Week 1, Class A).

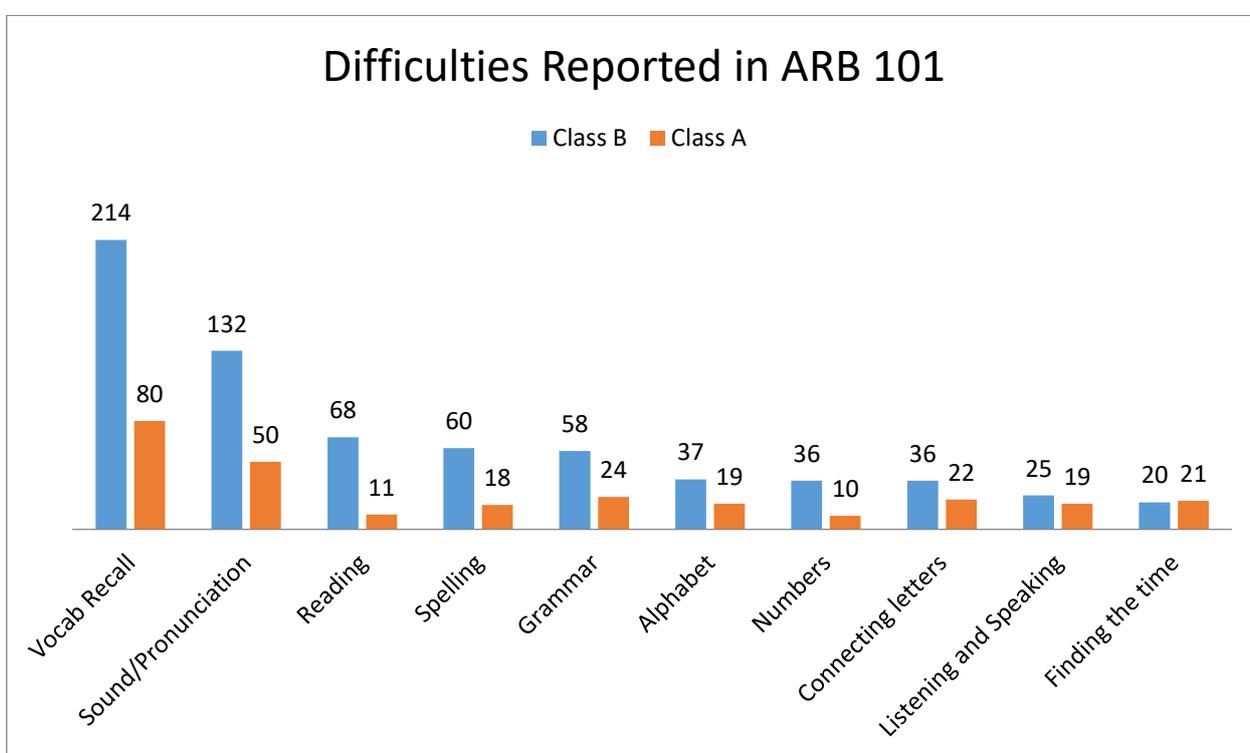


Figure 5 Difficulties reported in Arabic 101

It is important to note that while vocabulary recall was the most reported area of difficulty in students' journals (see Figure 5), it was not during the first three weeks of class. It was pronunciation, as can be seen in Figure 6. It is clear from students' journals that during the first three weeks in class, pronunciation and sound recognition were one of the most reported challenging areas of their learning. The pattern that emerges from students' comments shows a gradual decrease in pronunciation issues while at the same time gradual increase of difficulty in vocab recall which is the case for both classes. One way to explain the data that emerged could be the proportion of focus on sounds and pronunciation compared to vocabulary building. Not only do students need to learn the sounds initially, but they are also required to learn the meaning of words and how to use them. As they begin to recognize the letters and their pronunciations, and as more vocab is introduced, students' struggles shift to maintaining and retaining the words they learn. This is clear in Figure 6 as students' comments focus more on the difficulties they faced with remembering the meaning of the words and less on being able to recognize the sounds. The numbers in Figure 3 are the number of excerpts that documented the particular difficulty.

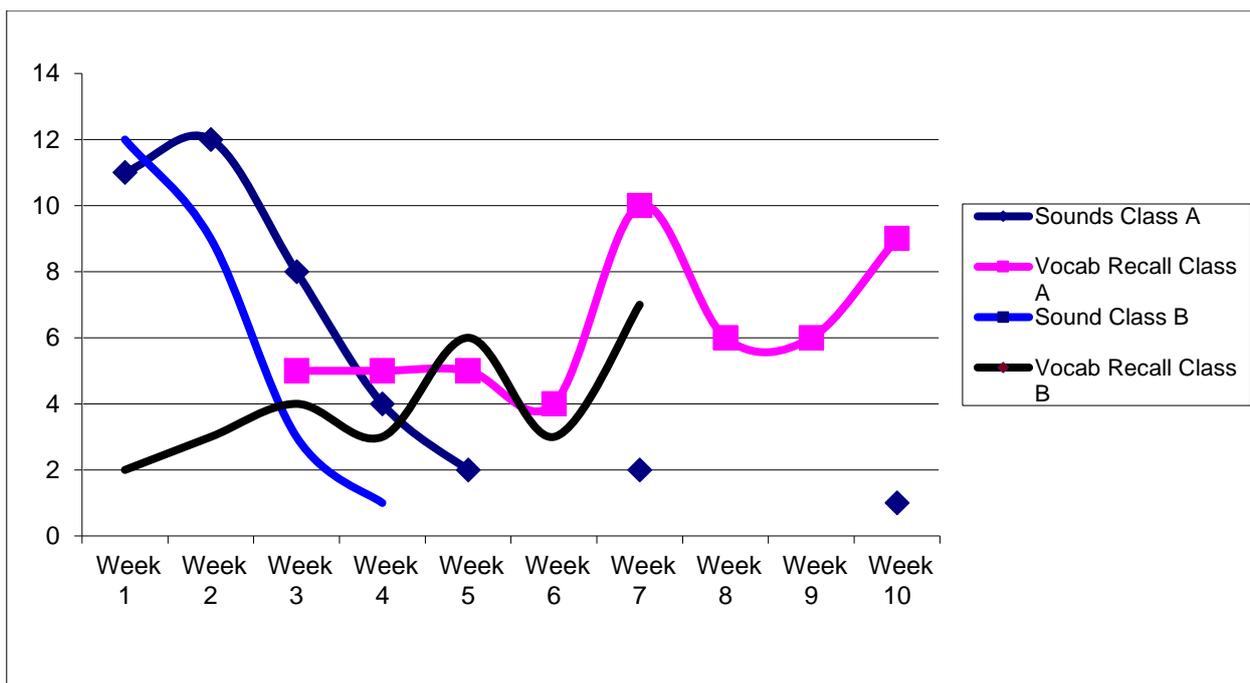


Figure 6 Sound/pronunciation and vocabulary recall difficulties by week for both classes

As the following excerpt shows, the student had difficulty remembering the key vocab for the food chapter “I’m struggling with remembering all of the food terms. I remember the basic Key Terms (the ones we had to record) because I studied them repeatedly over the weekend, since I knew we were going to have the Dictation quiz, but I’m struggling with remembering the other food words.” (HP, Week 10, Class A).

Another student echoed a similar concern towards the end of the semester

“This week in Arabic I learned about food and some new vocab, about what time the game is. The new vocab is fairly easy, and I learned it quickly with some practice this weekend. There was a lot of food to remember, but I love food. I definitely don’t remember all of it, but it was very interesting” (MK, Week 10, Class A)

Common Pronunciation Issues

In discussing some of the difficulties learners of Arabic face, Ryding (2013) notes that “the crucial length difference between long and short vowels is a challenge for American learners to hear, recognize, and imitate because it is not phonemic (meaningful) in English” (p. 173). These pronunciation and sound challenges were reported by students in this study. One of the most common issues reported was the difficulty in spelling a word that contained short/long vowels, and words ending with the feminine marker *ə*. For example, [kəbɪr] ‘old’ would be difficult because a student would not be able to decide whether there is a long vowel or a short vowel. Sounds that do not exist in English were the most reported as troublesome by students which is clearly illustrated in the following excerpt “I cannot pronounce the letters I am not used to saying- hhhuh [ح], the xuhh [خ], and the gh[غ], and the 3[ع] specifically.” (JM, Week 1, Class A), and the following excerpt “I am struggling most with the pronunciations of my “ha”s [ح], so I take extra time to pronounce them when practicing speech” (HP, Week 8, Class A). A student noted “I forget how to pronounce the ‘ya’ without the 2 dots underneath. Also, I can spell the words phonetically, but cannot distinguish when to use the ‘alif’ versus the ‘ta’.” (JM, Week 10, Class A). Another student noted

“I would say that I am struggling most with the spelling of the words from dictation. I find myself wanting to spell phonetically and know that I need to spell from memory of what the word looks like because I have found that sometimes there is a letter or lack of a letter for a certain sound. I know the English language is also like this and will need time to understand and practice the language more. I have been practicing writing some of the key vocab words repeatedly to help my mind remember what letters are in the word and where to put vowel accents when needed. It also helped me in the pronunciation area more as I wrote them.” (BC, Week 9, Class A).

Another student noted how sound recognition caused problems for their spelling
 "Last week's spelling quiz showed me I still have to practice visualizing the words as well. I am accurate maybe 75% of the time but add extra l or ى not knowing if that vowel sound is independent or affixed to another letter."
 (MC, Week 8, Class A).

This is echoed by other students in the class as can be noted in the following excerpt "One part of Arabic I am struggling with is writing the words that I know how to speak. I can say them, but am not sure how to spell them" (MK, Week 7, Class A). Ryding (2013) notes that unfamiliar sounds in Arabic can present problems for learners and teachers need to be cognizant of the ways these sounds should be taught.

Strategies Reported

As mentioned earlier, students were asked to comment on the strategies they used to help them learn Arabic. As can be seen in Figure 7, *extra practice* was the most reported strategy by students, followed by *practicing with tutors or speakers of the language*. *Using the online supplementary materials* was also one of the top strategies used by students, in addition to using *Flash cards*, and *writing lists*. *Watching YouTube videos* was at the bottom of the list.

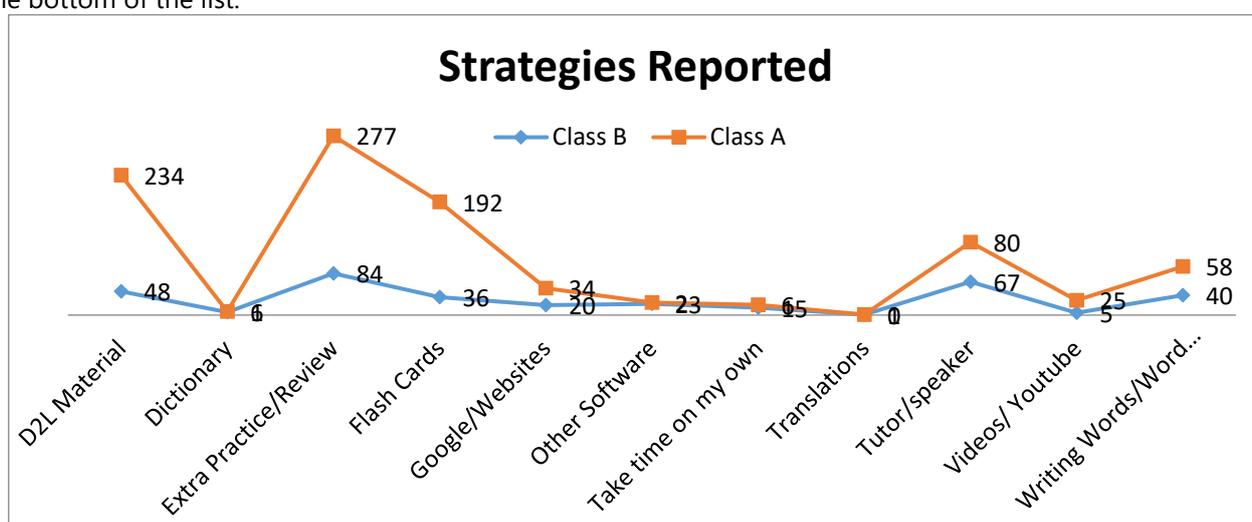


Figure 7 Strategies reported in Arabic classes in Class A and Class B

Students' excerpts that featured vocab recall difficulty and use of Flash cards to help manage the words show an interesting pattern. Students' use of Flash cards coincided with their reporting of difficulty of recalling the meaning of the new words. Students, however, used more strategies than just Flash cards, but when they reported difficulties with vocab recall, they also reported using Flash cards as a strategy to deal with vocab recall. It must be pointed out that students reported using less Flash cards towards the end of the semester. One way this can be explained might be due to time constraints as students focus on studying for the exam, or that students created enough Flash cards earlier in the semester. This pattern holds true mostly for both classes as students reporting of Flash cards towards the end of the semester dropped. Students' reports of using Flash cards reached a peak in week 3 in Class B and in week 7 in Class A as can be seen in Figure 8 which could be a response to the growing amount of vocab presented. This, again, is due to the growing number of words students were learning. As students learned more words every week, the amount of words increased and it became more difficult for students to recall these words.

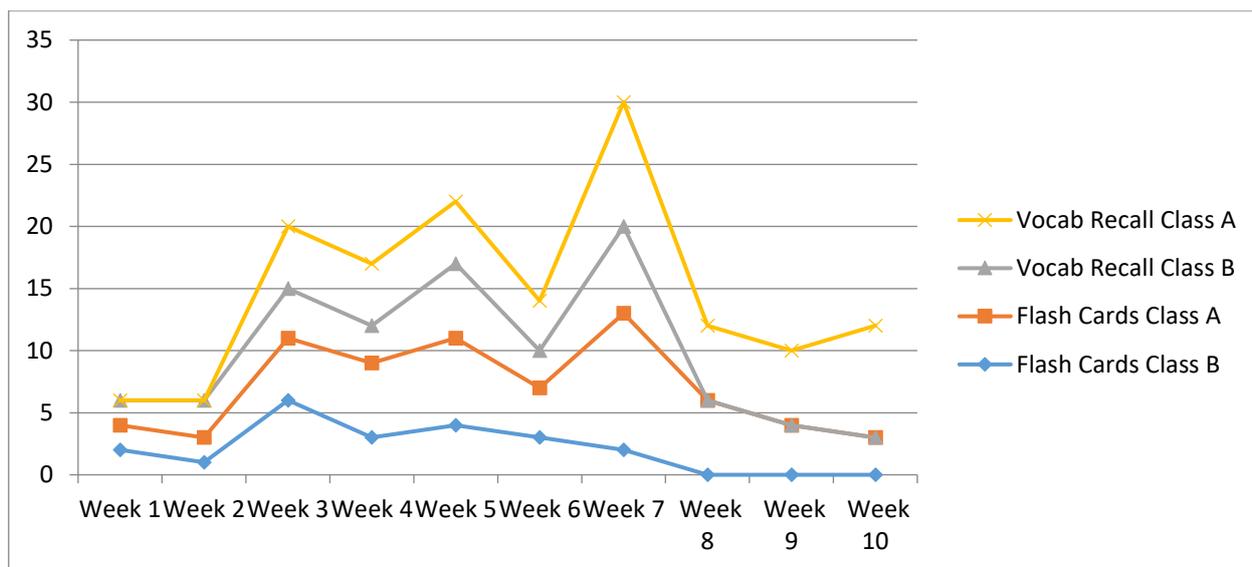


Figure 8 Reports of using flash cards and struggling with vocabulary recall by week in Arabic 101 in both classes

The Use of Other Software to Learn Arabic

Students reported using various software tools such as Byki, a quiz-let like application which allows students to study words and listen to their pronunciation in a flash-card-like format. A student reported using a CD in their car that played Arabic words for extra practice: "I have a vocabulary CD in my car that I practice from and on my way home to school, so I have a good understanding of some words, such as greeting and asking some general questions." (CS, Week1, Class B). In addition, students found tools that help them with specific aspects of the language, such as connecting letters: "I learned just today about the device that shows you how the letters look connected so I can check my work with that and improve." (ER, Week1, Class B). Students used *YouTube* to help them learn Arabic and found it helpful; however, the clips students found were sometimes either irrelevant or unhelpful. As one student noted

"I've tried finding *YouTube* videos, but most of them are just counting from 1 to 10, and even those are difficult to follow because they don't give the English translation and have a lot of additional dialogue I don't understand" (MP, Week1, Class B).

There were a variety of other tools students reported using to practice Arabic such as a program called 'iFlash.' A student noted

"Some students and I have been meeting up to study and this has been helping a lot. I hope we have some more group projects to do outside of class. I have been using this computer program, called iFlash and it has pre-loaded Arabic flash cards on it. I found some basic vocabulary cards as well as alphabet cards on the program." (EK, Week 3, Class A).

Social media was almost non-existent in students' journals except for one excerpt by a student who noted "I am still trying to pronounce all the words that I see in Arabic whether I know them or not, mostly from what friends write on Facebook." (TB, Week 8, Class A). Another student reported learning from setting up their personal keyboard to type in Arabic as a resource

"Ever since I uploaded an Arabic keyboard onto my computer I've been getting a lot better with the language. Reading it comes so much easier and quicker to me now and I'm actually getting the hang of where letters are and can type fairly quickly now." (MP, Week 8, Class A).

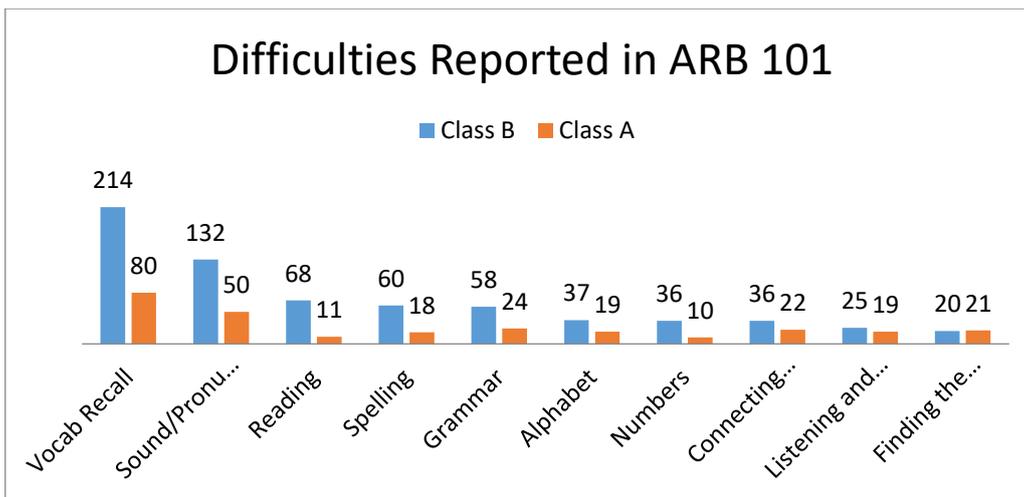


Figure 9: Journal entries reporting difficulties

Excerpts reporting difficulties increased at the beginning of the semester in weeks 1 and 2. The number of excerpts featuring difficulties then eventually dropped and again peaked during the middle of the semester, which again might be explained by the fact that students were expected to acquire and learn more Arabic. Difficulties reported peaked in week 2, week 7, and week 10 for Class A. For Class B, difficulties peaked in week 1 and week 7 as can be seen in Figure 10.

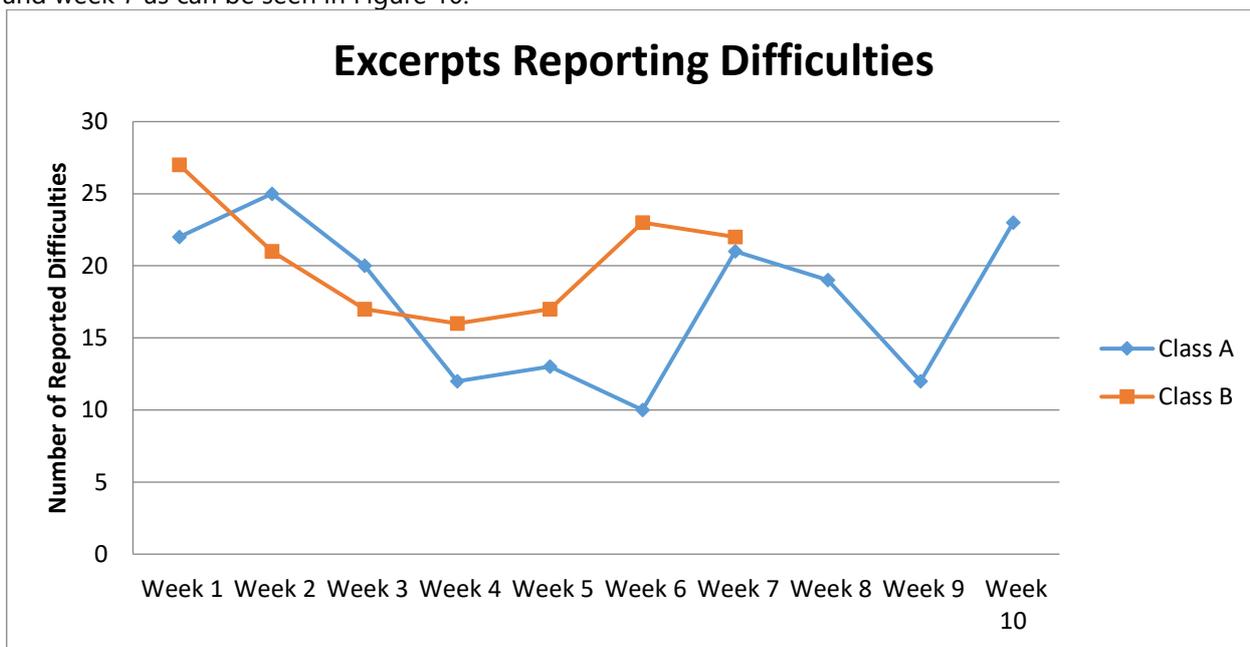


Figure 10 Excerpts reporting difficulties in the two classes

Cross-linguistic Issues

Students reported how previous language learning experience or knowledge of other language(s) facilitated or hindered their learning. In their excerpts, students’ comments mostly described positive influence of previously learned languages. A student who speaks Hebrew positively noted “The sound and pronunciation of the words are almost as similar as Hebrew, so I don’t have many problems saying it.” (CS, Week 1, Class B). Another student who was exposed to the Persian alphabet noted “The first week of Arabic seemed to go pretty well. Having briefly looked into Farsi/Persian a few summers back and comparing it to the Arabic alphabet along the way, I luckily recognize most of the alphabet” (SJ, Week 1, Class B). Negative comments related to cross-linguistic



influence only described the frustration some students had as they felt it took longer to learn Arabic compared to their previous 'seemingly' fast learning experience

"I'm a little frustrated but I guess that is mostly because I'm not used to learning languages so slowly. Most of the languages I've dealt with are Indo-European and more so Romance or Slavic, so it's very easy for me to recognize the relations to other languages I speak." (SJ, Week 2, Class B)

This frustration was echoed by another student who has excelled in previous language learning experiences

"Something that I am realizing in my process of Arabic language learning is my lack of patience at times. Considering my near-fluency in Spanish (and my use of Spanish every single day), I am at a point where I think and dream bilingually. The fact that I am back to square one with a language is frustrating, especially that I cannot immediately pronounce a word upon seeing it written. As such, one of my biggest hurdles will be regaining a certain patience toward this language to allow myself to achieve maximum potential." (MD, Week 4, Class B)

Conclusion

This research shed some light on students' use of online supplementary material to address learning difficulties in Arabic. First, students' use of the supplementary material did not correlate with their final grade; students who were doing well in class might not have found the need to use them. Students who made the most of the tools were predominantly the students who either missed several class meetings, or the ones who tended to be shy in class. What is clear, however, was that the more students visited the online site, the more they used the site. Research shows that certain kinds of students have the skills needed to use online resources. By building these habits of making students spend sometime online and coached on how to use it, the more likely they will use it. However, this is not in a way a guarantee to better grades in the class.

Students' online behavior to some extent was driven by the kinds of tasks they did in class. Based on data from journal entries, students sought to use the online resources to help them do better and learn things they are having difficulty with in class. Even though students used resources outside of class to help them learn, the online class material was the most accessed. As one student noted

"To help me study, I use language-learning software called BYKI that uses digital flashcards along with audio to assist with the learning process. The only problem with the software is that many of the lists for learning the vocabulary do not necessarily correspond to the lessons we are learning at the moment, so sometimes I feel using the software is a waste of time if we are not going to be quizzed on that material." (MM, Class B)

It must be noted that students' overall use of the online tools was not consistent; students crammed material when preparing for an exam, or when the class began a new lesson. Hence, their usage of the online tools had no relationship on their overall grade in the course. Had there been consistent structured practice that required students to access the site for a specific amount of time, there could have been more tangible yet indirect relationship to students' final grades in the course. Pronunciation and vocabulary recall were the most reported challenges by students, and as the kind of difficulties students faced changed throughout the semester, their online behavior changed as well in response to these difficulties. The use of flash cards was the top strategy for students and it was mainly in response to vocab recall difficulties the students encountered.

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