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Students' and teachers' perceptions of Moxtra as an online space for blended learning

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In this exploratory study, the author examines both students' and teachers' perceptions of Moxtra, a cross-platform cloud collaboration service, as a blended learning tool in a language course. Participants were 242 first-year students studying General English and 8 teachers at the Bunkyo English Communication Centre (BECC) at Hiroshima Bunkyo Women's University in Japan. Both students and teachers were given an iPad self-efficacy survey along with a Moxtra Perceptions and Attitudes questionnaire with student survey results being followed by principal components analysis. Findings showed positive indicators regarding the potential for Moxtra in a language learning context, not only as a tool to support blended learning, but also as a tool to support teachers in a collaborative working environment. With that said, the results also indicate that for Moxtra to reach its full potential, students need to be inculcated, nurtured and encouraged to engage fully with the application. Similarly, teachers must also be encouraged to utilize Moxtra's many features with their students in order to benefit from all of its affordances. The study provides both curriculum developers and language instructors with insights into the adoption of Moxtra in an EFL context.

Keywords: SNS, e-portfolio, blended learning, MALL, Moxtra

Introduction

Teaching and learning styles are evolving along with the technological tools to accommodate these new practices. Consequently, the learners of today are different in that they have access to new forms of learning

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due to rapid developments in technology. In particular, social networking sites such as Facebook, Twitter and Instagram have become an integral part of life for many university students and have greatly enhanced and transformed learning (Chen & Bryer, 2012; Deng & Tavares, 2013; Goh, 2018; Selwyn, 2009; Welch & Bonnan-White, 2012). Rosenfeld (2007) aptly states that "today's students are different in their interaction with media from those of previous generations … Schools must teach and nurture the collaborative and networking skills that students need in the social networking Web 2.0 world" (p. 6). According to Everhart (2006), online learning could "surpass face-to-face classrooms in providing learning experiences that are 'social, active, contextual, engaging and student-owned'" (pp. 135–136). Therefore, it is of little surprise that a growing number of language educators have come to recognize the importance and numerous benefits of utilizing social learning technology in language teaching and learning.

Blended learning

One of the educational trends to result from the aforementioned paradigm shift in learning style is the rise of blended learning. The body of literature on blended learning proves that there is no agreement on its definition. Thus, for the purposes of this study, Collis and Moonen's (2001) definition of blended learning will be applied. Collis and Moonen define blended learning as "a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online, and where the online component becomes a natural extension of traditional classroom learning" (Collis & Moonen, 2001, as cited in Rovai & Jordan, 2004, p.3). The pedagogy of a blended learning environment is "based on the assumption that there are inherent benefits in face-to-face interaction as well as the understanding that there are advantages to using online methods" (Clark & James, 2012, p.19). Furthermore, blended learning environments give students more control over their learning and can help foster critical thinking (Garrison & Kanuka, 2004). Marsh (2012) has identified the following strengths of blended learning in foreign language education:

1. Blended learning provides a more individualized learning experience
2. Blended learning provides more personalized learning support
3. Blended learning supports and encourages independent and collaborative learning
4. Blended learning increases student engagement in learning
5. Blended learning accommodates a variety of learning styles
6. Blended learning provides a place to practice the target language beyond the classroom
7. Blended learning provides a less stressful practice environment for the target language
8. Blended learning provides flexible study, anytime or anywhere, to meet learners' needs
9. Blended learning helps students develop valuable and necessary twenty-first century learning skills (pp. 4–5)

Electronic portfolio

Another educational trend which is closely intertwined with blended learning is the electronic portfolio (also known as an e-portfolio). The e-portfolio has drawn a great deal of interest in recent years, not only in Japan, but around the world. An interest that continues to grow and be supported by mobile applications designed specifically for their creation. According to Madden (2008), a student e-portfolio is "an archive of material, relating to an individual, held in a digital format" (p. 5). Contents of an e-portfolio may include evidence

of achievement, actual work (produced individually and/or collaboratively) such as reports, slides or video presentations, and audio files. These documents can be digital or images of the original work. Portfolios also often house a record of a student's grades coupled with assessment feedback. Furthermore, e-portfolios may be adapted to suit other purposes over time and naturally evolve as the creator's life changes, which is a much-desired quality by those who advocate the use of e-portfolios to support lifelong learning (Billings & Kowalski, 2005). At the Bunkyo English Communication Center (BECC), Moxtra is used as an e-portfolio system for storing materials, sharing materials, collaborating on projects, learner reflection, and to support academic goals. It serves to enhance learning through reflection and to help students manage artefacts and learning outcomes, ultimately producing a more enriched learning experience. Its overarching purpose is to serve as a bedrock for lifelong learning and Personal Development Planning (PDP). Stefani, Manson and Pegler (2007) define PDP as "a structured and supported process undertaken by an individual to reflect upon their own learning, performance and/or achievement and to plan for their personal, educational and career development" (p.).

Moxtra

Before deciding on Moxtra, three other applications were piloted. In the case of the BECC, a free mobile friendly application that offered both social networking features as well as the ability for students to upload, share, and annotate documents easily, was essential. The first application tested was iTunesU, a free learning management system designed by Apple. iTunesU allows educators to share materials with students as well as have online discussions. However, iTunesU was very limited in terms of social networking capabilities and lacked a streamlined system for collecting and returning student work. The second application examined was Slack, a free cloud-based collaboration application. Slack caters to businesses and aims to improve communication and collaboration among team members. Slack is an excellent tool for social networking and allows users to easily chat and share files. Unfortunately, Slack does not allow users to annotate documents within the application. It is possible to share files in Slack via Google Drive where users may comment around a document; however, this adds another layer of complexity.

The third application tested was Google Classroom, which is a free learning management system that makes it easy to create, distribute, and grade assignments digitally. Its primary purpose is to streamline the process of sharing files between teachers and students. Google Classroom proved to be very user-friendly and was an excellent tool for sharing files and assigning grades. However, Google Classroom is far from being a social network as it does not allow for group chats or have a dedicated chat page. Furthermore, annotation is limited to adding text comments to a document, unlike Moxtra where users can add not only text comments but also embed voice comments and annotate documents with a digital pen. With the above in mind, it was decided that Moxtra, due to its user-friendliness, advanced annotation features and impressive collaboration and social networking capabilities, was an ideal tool to support blended learning at the BECC.

Moxtra is a free cross-platform application designed mainly to support businesses on collaborative projects. The Moxtra website states the following in regard to using Moxtra in an educational setting:

With Moxtra, students can collaborate on digital whiteboards, upload and annotate

> pictures and documents, record their voices over shared content, and complete homework assignments in individual threads with their teachers. Moxtra cuts down on mundane administrative tasks, as teachers are able to digitally distribute, collect, and grade assignments and class material from their device of choice. (Moxtra, 2018)

Moxtra users create digital binders which they then invite other members to join. Members within a binder are then able to communicate in several ways as well as collaborate on multiple projects, making it an ideal tool to support blended learning. Yap (2018) aptly stated that the "binder-based grouping in Moxtra allows the development of a learning community which supports knowledge construction" and reported that "students generally expressed a positive attitude towards the use of Moxtra as a collaborative platform" (p.151). Successful online collaboration requires smooth and multifaceted communication, which Moxtra provides through a suite of messaging services arguably on par with popular social networking applications such as Line, WhatsApp and Facebook.

Moxtra houses an incredible array of features such as the ability to store, share and annotate documents, collaborate both synchronously and asynchronously, text chat, video chat, and create asynchronous voice threads all within a private and secure social network. Moxtra's core feature is that it allows users to annotate PDFs and images using digital pens and voice tags. Voice tags are embedded speech bubbles that play recorded audio when clicked or touched. Documents can also be commented upon by adding text or voice messages next to a document rather than directly on it in a way very similar to Google Docs, for readers who are familiar with that service. Moxtra also has a section dedicated to instant messaging as well as a schedule page or to-do list, which allows members to set deadlines with push notifications. One of the main reasons Moxtra was selected is due to its social affordances. That is, it allows users to connect easily with other users and to communicate with others in multiple ways, giving birth to an online social space conducive to social learning. The screenshots below (Figures 1–4) may serve to better illustrate the aforementioned features.

It is important to note that Moxtra is a free application and all the above features are available with the free version. However, the free version of Moxtra does have some limitations. Firstly, only 90 days of chat history are made available. Secondly, users on the free plan cannot upload files any larger than 10 MB. Pro users have a 200 MB file upload size limit and unlimited access to chat history. Pro accounts come with other bells and whistles, such as unlimited time video chats, 50 participants per video chat, CSV import and custom branding. However, the majority of these pro features are aimed at businesses and, in most cases, are not necessary features in an educational setting, making the free version of Moxtra more than sufficient. Educational plans that cater to individual institutions are available if users need to upload larger files, such as videos or high-resolution images.

Moxtra may be considered a Social Networking Site (SNS). Kachniewska (2015) defined SNS as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and depend on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content" (p. 18). Tay and Allen (2011), argue that social network based activities help to develop students' collaborative skills. Further, Alnujaidi (2016) investigated the relationship between EFL students' experience, attitudes, perceptions, and expectations toward the effectiveness of social network sites. Findings indicated

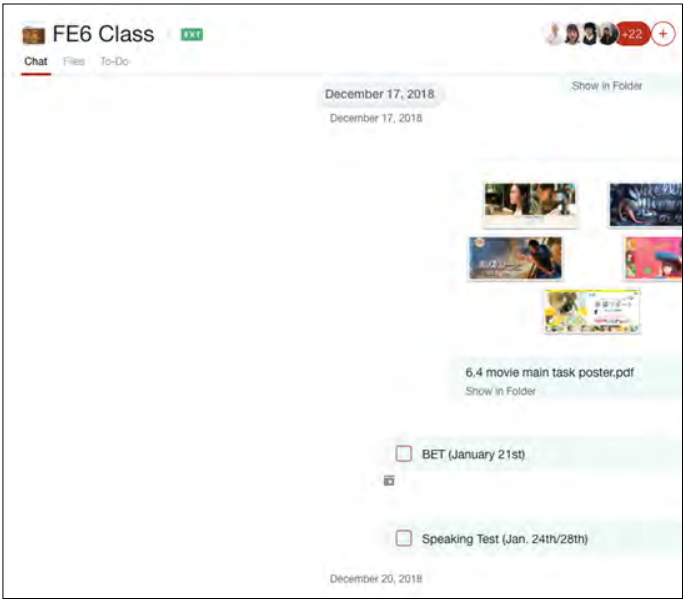

Figure 1. Moxtra chat page

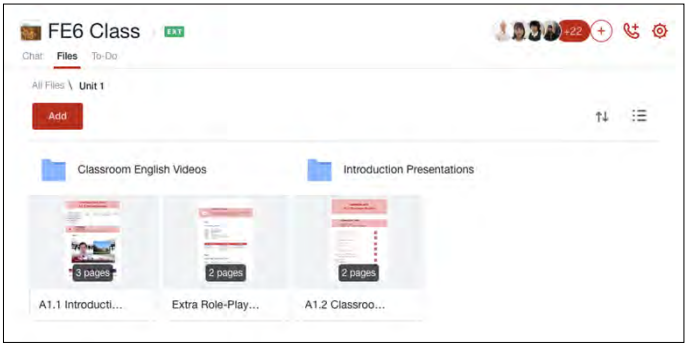

Figure 2. Moxtra files page

that participants had positive attitudes, perceptions, and expectations toward the use of social networks to improve language learning.

To the author's knowledge, only one study has been conducted on Moxtra in a language learning context. Knight (2018) examined the use of Moxtra to extend presentation projects beyond the classroom and reported positive responses. Another online collaboration tool which shares many of the features of Moxtra is Google Docs, an online simultaneous editing software. There have been several studies on the use of Google Docs to support language learning, both inside and outside the classroom (Liu & Lan 2016; Seyyedrezaie,

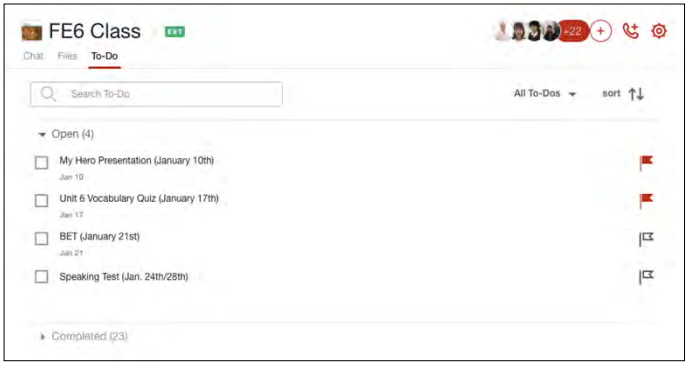

Figure 3. Moxtra to-do page

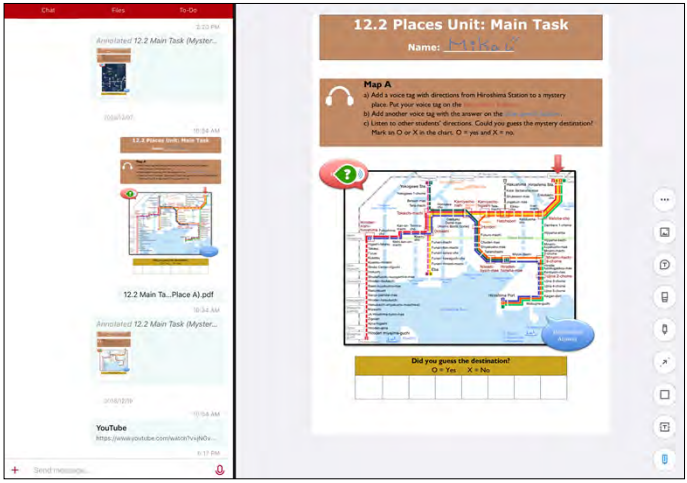

Figure 4. Annotating a document in Moxtra

2016; Wahyuni, 2018). The majority of participants in these studies had positive attitudes toward Google Docs. However, it is important to note that Google Docs lacks the rich layers of collaboration that can be easily integrated into the context of the Moxtra application, which offers multiple ways to voice and text chat along with the ability to freely annotate various documents with a digital pen. Although there is a plethora of research on the use of SNS and online collaborative tools, such as Google Docs, to support language learners, there is currently no research on students' and teachers' perceptions of Moxtra as a blended learning tool in a language course. Given the scarcity of research on this topic, this study addresses the following core research questions:

- What are students' perceptions of Moxtra as an online space for blended learning?
- What are teachers' perceptions of Moxtra as an online space for blended teaching?

Contextual background

In this study, the author examined students' and teachers' perceptions of the Moxtra application as a blended learning tool in a language course. The study was conducted at a small private women's university in Japan where all students own an iPad mini. Participants were 242 first-year students studying General English and 8 full-time English as a Foreign Language (EFL) lecturers: four male and four female. The General English curriculum is an entirely digital task-based curriculum, which was developed in-house and is based on the CEFR (Common European Framework of Reference for Languages). Moxtra was used as a core tool to support this digital curriculum and to serve as an e-portfolio system. The General English curriculum was taught via an iPad, with the majority of students being between CEFR levels A1 and A2. The lecturers in the study all received some iPad and Moxtra training.

Setting up Moxtra

The Moxtra application was downloaded by all students during the first week of classes with all General English teachers dedicating one 90-minute period to setting up the application and teaching students how to use it. All Moxtra training was done in English by the teacher; however, the application's language was in Japanese for the majority of students, and a Moxtra set-up guide in Japanese was provided.

All students were first required to create one digital binder, which is a private online space for storing digital files such as PDFS, videos, audio files, links and more. The space allows users to organize documents using folders and is managed and owned by the student. Students were then asked to share their binders with their English teacher. This resulted in the teacher having access to each and every student's private binder. All messages and documents posted in this binder would be seen by only the student owner and the teacher, with both having the ability to edit, comment and share. The teacher then created a binder using their own account and invited all students in the class to join. The purpose of this class binder was for students and the teacher to be able to message and share documents quickly and easily with the entire class. In short, at the end of the 90-minute Moxtra workshop, all students had two binders: a private binder created and owned by them, which is shared with only their teacher, and a class binder owned by the teacher and shared with the entire class. However, students were told that they could make more binders, which they could share with one or more classmates so as to easily communicate and work together on group projects and assignments.

Student use of Moxtra

1 Self-access learning and assignments. All General English students were required to complete four language learning activities per semester outside of class. All activities were downloaded via QR codes, which were located in the university's Self Access Learning Center (SALC). SALC activities were organized using the CEFR and divided into four categories or skills: reading, writing, speaking and listening. In the case of speaking activities, students were required to record conversations with a teacher or student directly into Moxtra by utilizing the voice tag feature. Students were also required to complete some out of class assignments, such as writing a self-introduction, writing about hobbies, creating

a slideshow for a presentation, etc. SALC activities and assignments could be completed within Moxtra using the digital pen or text tool or they could be completed using another application which allows for annotation, such as Notability. Native Apple applications such as Keynote for creating slideshows and iMovie for creating movies were used, and final creations were shared to Moxtra as well. All completed work was submitted through each student's private Moxtra binder, where they were then checked, annotated upon and graded by the teacher. Furthermore, every document uploaded or edited, and every message posted is timestamped, so teachers can easily check to make sure assignments and activities were completed on time.

2 Communication. Every digital binder in Moxtra has a space dedicated to text and voice messaging. These chat pages allow students to ask their teacher questions directly within their own private binder or post comments/questions to the entire class via the class binder. The chat page was often utilized by teachers to post announcements and reminders to the class or to contact students individually regarding grades, feedback, reminders, and so on. Like other social networking applications, Moxtra allows for push notifications. This means that a user receives a pop-up message and/or audio alert when a change is made or a message is posted within a binder they belong to. The chat page also reports the time and date beneath every posted message and document that was edited or uploaded.

3 Collaboration. The General English curriculum is a task-based curriculum with several group projects. Moxtra serves as an excellent platform for supporting such collaborative projects as it allows students to create a single binder and share it among only their group members. Binder members can then add and edit the documents both synchronously and asynchronously. At the BECC, Moxtra was used by students collaboratively to create slideshow presentations, audio and video presentations and for planning projects and communicating ideas outside of class. Some assignments such as video and slideshow presentations were uploaded to the class binder so as to be viewed by all members of the class and, in some cases, commented and annotated upon by other members of the class binder.

4 Digital portfolio. As mentioned earlier, Moxtra is used at the BECC as an e-portfolio system allowing students to safely house completed work, a record of their grades and assessment feedback in an endeavour to encourage learner reflection and to support academic goals. During the course of this study, students were given feedback on every assessment, which they stored digitally in Moxtra. Feedback provided students with their CEFR level and recommended SALC activities based on their results.

5 Lesson materials. It should be noted that although Moxtra may serve as a tool for digitally annotating lessons, all students were encouraged to annotate lessons using another application called Notability. The reason being that Notability is an application solely dedicated to PDF annotation and does not require an internet connection, making it a superior tool for lesson annotation. Given the fact that students studying General English at the BECC are required to annotate hundreds of digital pages over the course of their studies, it was paramount that students use the best possible annotation software available. Furthermore, all lessons and materials were downloaded via a student website. However, supplementary materials and alternative lessons were shared with students by the teacher through the

Moxtra class binder. Also, synchronous activities such as brainstorming, word races, and quizzes were done within the class binder.

Teacher use of Moxtra

1 SALC and assignments. As mentioned above, all SALC activities and several assignments were submitted to teachers via Moxtra, where they were then annotated and graded. To accommodate the large volume of digital work from students – in particular, SALC activities – Moxtra allows teachers to put each class of students in a category. When setting up Moxtra, students were also asked to upload a photo of themselves to be used as the cover for the personal binder they share with the teacher. Consequently, when a teacher opens their class category, they are immediately presented with a screen full of digital binder covers with the student's name below the binder and the student's face on the cover, as seen in Figure 5 below. This makes it very easy for teachers to navigate student binders within a class. Furthermore, teachers are able to view documents within a binder either page by page or by using a thumbnail view. The latter provides teachers with a single screen showing every page of the document as seen in Figure 6 below. This allows teachers to quickly check if a SALC activity was completed and to easily bounce between sections of a document.

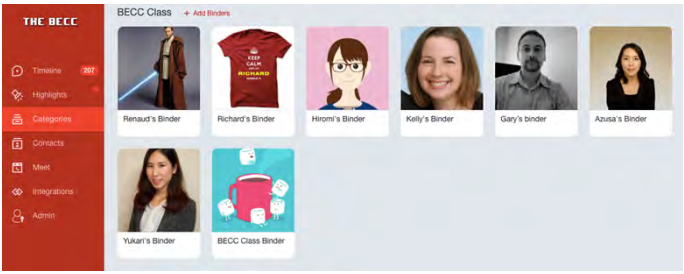

Figure 5. Example class in Moxtra

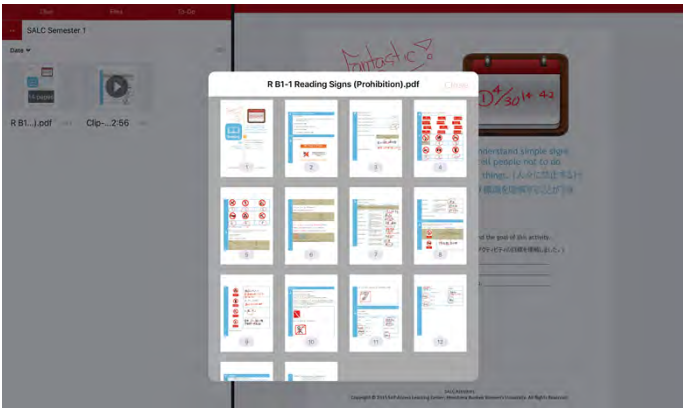

Figure 6. Example of utilizing thumbnail view in Moxtra

2 Communication and collaboration. Moxtra has a dedicated chat page which allows teachers to post comments either by text or voice. The chat page can be used by teachers to send private messages to students or to post announcements to an entire class via the class binder. At the BECC, teachers also belong to work binders such as committee binders, the First Year General English binder, Second Year General English binder and so on. These binders allow teachers to communicate and share documents related to the classes they teach and to work collaboratively on projects concerning curriculum development, assessment, etc. Some other binders include professional development, university administration matters, ICT matters, and finally, a binder titled Coffee Break, which is a space where teachers can comment and share things unrelated to work. Binders are constantly evolving, with some being removed and new ones added to accommodate the ever-changing educational landscape at the BECC.

3 Class activities. As Moxtra allows for synchronous communication, it is an excellent tool for group or whole-class activities. For example, teachers can create a document in the class binder which all students have access to. Each group can designate a writer and use the document to brainstorm ideas, compete in spelling races or to answer questions. Another common practice is for teachers to ask students to comment on other students' work. For example, students may upload final presentations and then comment on the presentation they liked best or ask the presenters questions. Such tasks can also be completed outside of class.

Method and results

As this study examined both students' and teachers' perceptions of Moxtra, this section of the paper will be divided into two parts. Part 1 covers student data collection, procedure, analysis and results with the following two research questions having been posited: What are students' perceptions of the iPad as a tool to support blended learning? What are students' perceptions of Moxtra as an online space for blended learning? Part 2 encompasses teacher data collection, procedure, analysis and results. Part 2 aims to answer the following two research questions: What are teachers' perceptions of the iPad as a tool to support blended learning? What are teachers' perceptions of Moxtra as an online space for blended teaching? The results of the data will be reported respective to each research question with a final discussion and conclusion on the data as a whole.

Part 1: Student data collection, procedure and analysis

The researcher developed a survey that consisted of an 18-item, six-point Likert scale, which was completed by 242 first year students online during class time. The survey was in Japanese to make sure students fully understood the content of the questionnaire. It included two subcategories: (a) iPad self-efficacy (10 items) and (b) student perceptions of Moxtra (8 items). In an attempt to increase measurement precision and avoid a middle category, which can cause statistical problems, a six-point likert scale was chosen in accordance with Nemoto and Beglar's (2014) guidelines for developing a Likert-scale questionnaire. Participants were asked to rate their agreement on the scale (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree). The researcher ran principal components analysis (PCA) on the 18 variables contained in subcategories (a)

and (b). A Kaiser-Meyer-Oklin (kmo) measure of the sample adequacy and a Bartlett's test of sphericity validated the fitness of the data for analysis, performed based on a factor loading of 0.5 or higher and an eigenvalue greater than 1. For these data, Bartlett's test is highly significant ($p < .000$) and the kmo value was 0.942, rendering PCA appropriate (Field, 2005).

Results and discussion: A quantitative and qualitative interpretation

The principal components analysis was conducted using a promax rotation procedure to see how the 18 items grouped together. Three components were extracted with an item loading greater than 0.5 as the criterion of importance with components accounting for 76% of the total variance. Table 1 shows the component loadings coupled with descriptive statistics listing the mean and standard deviation for each item.

Research question 1: What are students' perceptions of the iPad as a tool to support blended learning?

Loadings for Component 1 show that students tended to have positive perceptions of the iPad not only in terms of user-friendliness, but also as a tool to facilitate learning and increase engagement levels. In fact, Item 8, "iPads are good tools for engaging students" received the highest mean. It should be noted that the survey was taken at the end of the year, which means that students would have had a full two semesters (eight months) of experience with the iPad and the Moxtra application. Students reported the following in the comment section of the survey after completing Section A, which contained items solely concerning iPad self-efficacy:

> It took me a long time to master the iPad, but it became easy to use once I got used to it and made my studies move along smoothly.
>
> It was a lot of fun. The iPad is easy to use, and you can study anywhere and anytime.
>
> It (iPad) was easy to use once I got used to it.
>
> Thanks to the iPad, I didn't have to carry much to class.

Item 2, "I can deal with most difficulties I encounter when using an iPad." and Item 3, "I am confident in my abilities to use an iPad." scored the lowest means with both items pertaining to students' confidence in using the iPad. These lower means are perhaps due to the fact that students were expected to do everything related to coursework on their iPad, which can be overwhelming, as the vast majority of these students come from an education system that is primarily analog. Some tasks included sharing documents between multiple applications, creating videos with iMovie and slideshows with Keynote (Apple's version of PowerPoint), playing interactive language games on the web, annotating documents with both text and voice annotations, and completing assessments on Moodle (a learning management system). These results seem to indicate that students think positively of the iPad as a tool to enhance language learning, but feel they need more training on how to use the device. As the curriculum allocated little time if any to iPad training, Items 2 and 3 scoring lower means is not surprising. Furthermore, technical issues along with Wi-Fi network problems did occur on occasion. More training for students on how to use the iPads would be very beneficial.

Table 1. Results of principal components analysis for all subjects (N=242)

No	Items	C1	C2	C3	M	SD
Component 1	**Students' perceptions of the iPad as a tool for language learning**	**avg. M = 4.5**				
9	iPads enhance English learning materials.	0.994			4.40	1.04
10	iPads facilitate my learning.	0.964			4.41	1.03
7	I enjoy using an iPad in English class.	0.952			4.51	1.12
8	iPads are good tools for engaging students.	0.915			4.64	1.00
6	I enjoy learning with an iPad.	0.833			4.63	1.02
5	The iPad helps me to be more efficient.	0.735			4.42	1.08
Component 2	**Students' perceptions of Moxtra as a tool to support blended learning**	**avg. M = 4.2**				
18	I prefer to hand in homework (not SALC activities) on Moxtra rather than directly to my teacher.				4.44	1.07
13	Moxtra helps to improve the student-student relationship in a course.		0.93		3.91	0.93
14	Moxtra helps make a course more successful.		0.897		4.28	0.89
15	Moxtra facilitates my learning.		0.896		4.28	0.94
16	I like using Moxtra in English class.		0.814		4.06	1.00
12	Moxtra helps improve the teacher-student relationship in a course.		0.798		4.38	0.93
11	Moxtra is user-friendly.		0.767		4.19	0.95
17	I prefer to do SALC activities on Moxtra rather than on paper.				4.17	1.21
Component 3	**Student confidence in using the iPad**	**avg. M = 4**				
3	I am confident in my abilities to use an iPad.			1.024	3.62	1.19
2	I can deal with most difficulties I encounter when using an iPad.			0.937	3.92	1.06
1	It is easy to learn how to use an iPad.			0.736	4.30	1.08
4	Most of the iPad applications I have had experience with have been easy to use.			0.718	4.18	1.00

In brief, these somewhat positive results were not surprising considering the amount of time students used their iPad both inside and outside of class over the course of their first year at the BECC. The fact that students own their iPad and are free to use the device for not only school related work, but also for personal use, was most certainly a positive factor. Furthermore, almost all students owned a smartphone, with a high majority owning an iPhone, which greatly reduced the learning curve. Self-efficacy is connected to beliefs about mastery and usability of technology, which means that it plays a significant role in the acceptance and uptake of technology in the classroom (Shea & Bidjerano, 2010). If students have low iPad self-efficacy, this must be considered when examining survey results on their perception of the Moxtra iPad application. Given the above results, it is safe to

assume that students' responses on the Moxtra survey were not negatively influenced in any significant way due to their perceptions of the iPad as a tool itself.

Research question 2: What are students' perceptions of Moxtra as an online space for blended learning?

According to the results, students felt that Moxtra helps to improve the teacher-student relationship in a course, with the mean being 4.38. Interestingly, students did not feel as strongly regarding the improvement of the student-student relationship in a course, with a lesser mean of 3.91. Another notable finding was that all students on average seem to prefer doing their SALC activities on Moxtra and submitting assessments via Moxtra with weighted averages amounting to 4.17 and 4.44, respectively. As Moxtra was primarily used as a means to digitally submit SALC activities and assessments, this suggests that Moxtra was a successful application for supporting blended learning. Students reported the following in the comments section of the survey:

> I think Moxtra is a great way to have conversations.
>
> Moxtra is really convenient because I can also access it from my smartphone.
>
> Moxtra is convenient because I can send things from anywhere at any time.
>
> Moxtra was really convenient.

However, one student expressed some concern regarding communication with her teacher stating, "I worry about not being able to communicate properly in English with my teacher on Moxtra." As the majority of students in this study were A1–A2 CEFR level language learners, with some even being pre-A1, it is understandable that many students would have been quite reluctant to send messages in English to their teacher for fear of making a mistake or not understanding the teacher's reply.

Part 2: Teacher data collection, procedure and analysis

The researcher developed a survey that consisted of a 25-item, six-point Likert scale. It included two subcategories: (a) iPad self-efficacy (10 items) and (b) Teacher Perceptions of Moxtra (15 items). Participants were asked to rate their agreement on the scale (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree). Teachers were also interviewed during the semester following the survey.

Table 2. Teacher iPad self-efficacy survey (N = 8)

No	Items	1	2	3	4	5	6	M	SD
1	It is easy to learn how to use an iPad.	0%	0%	0%	12.5%	75%	12.5%	5	0.5
2	I can deal with most difficulties I encounter when using an iPad.	0%	0%	0%	12.5%	62.5%	25%	5.13	0.6
3	I am confident in my abilities to use an iPad.	0%	0%	0%	25%	50%	25%	5	0.71
4	Most of the iPad applications I have had experience with have been easy to use.	0%	0%	0%	12.5%	62.5%	25%	5.13	0.6
5	The iPad helps me to be more efficient.	0%	0%	0%	37.5%	37.5%	25%	4.88	0.78
6	I enjoy using iPads in the workplace.	0%	0%	0%	0%	62.5%	37.5%	5.38	0.48
7	I enjoy teaching with an iPad.	0%	0%	0%	12.5%	50%	37.5%	5.25	0.66
8	iPads are good tools for engaging students.	0%	0%	0%	25%	75%	0%	4.75	0.43
9	iPads enhance teaching materials.	0%	0%	0%	12.5%	50%	25%	4.88	0.93
10	iPads facilitate my teaching.	0%	0%	0%	0%	75%	12.5%	4.88	0.78
	Total mean average							**5.03**	

Research Question 3: What are teachers' perceptions of the iPad as a tool to support blended teaching?

Results from the teacher iPad self-efficacy survey were very positive, with the average mean being 5.03. It should be noted that the iPad was first introduced to the BECC in 2013 with five out of the eight teachers having taught with the device since its integration. Item 6, "I enjoy using iPads in the workplace" and Item 7, "I enjoy teaching with an iPad" together scored the highest means, indicating that teachers feel quite positive about the iPad not only in their teaching, but as a general tool in the workplace. Given the above results, it is safe to assume that teachers' responses on the Moxtra survey were not negatively influenced in any significant way due to their perceptions of the iPad as a tool itself. The following two comments were made in regard to the iPad:

> WiFi connectivity issues make iPad usage a hassle quite a bit, I have found. Sometimes, a blend of textbooks and iPad might be a better option…

> I think the quality of materials and the teacher are much more important than whether or not iPads are used. iPads are just another tool like whiteboards and notebooks. iPads can be useful, but other factors are much more important for delivering good education, and I think it's important not to lose sight of this.

Table 3. Teachers' perceptions of Moxtra (N = 8)

No	Items	1	2	3	4	5	6	M	SD
11	Moxtra is user-friendly	0.00%	0.00%	0.00%	37.50%	62.5%	0%	4.63	0.48
12	I like the the way the Moxtra interface is designed.	0.00%	0.00%	0.00%	37.50%	75%	0%	4.75	0.43
13	Moxtra helps improve the teacher-student relationship in a course.	0.00%	12.50%	0.00%	37.50%	25%	12.5%	4.13	1.09
14	Moxtra helps to improve the student-student relationship in a course.	0.00%	12.50%	0.00%	37.50%	37.5%	0%	4.13	0.93
15	Moxtra facilitates students' learning.	0.00%	12.50%	0.00%	37.50%	62.5%	0%	4.38	0.99
16	Moxtra helps make a course more successful.	0.00%	0.00%	0.00%	37.50%	62.5%	0%	4.63	0.48
17	Moxtra facilitates my teaching.	0.00%	0.00%	0.00%	37.50%	37.5%	12.5%	4.50	0.70
18	Moxtra improves workflow at the BECC.	0.00%	0.00%	0.00%	37.50%	37.5%	37.5%	4.75	0.78
19	Moxtra helps to improve the relationship I have with my coworkers.	0.00%	0.00%	12.50%	37.50%	37.5%	12.5%	4.38	0.87
20	Moxtra enables me to manage my work time more efficiently.	0.00%	0.00%	12.50%	37.50%	25%	0%	4.13	0.60
21	I think using Moxtra in my teaching helped improve overall student performance.	0.00%	0.00%	25.00%	37.50%	12.5%	0%	3.88	0.60
22	I prefer to receive SALC activities on Moxtra rather than by paper.	12.50%	0.00%	12.50%	37.50%	25%	37.5%	4.13	1.66
23	I prefer to grade SALC activities on Moxtra rather than on paper.	12.50%	0.00%	25.00%	37.50%	37.5%	25%	4.00	0.64
24	I prefer Moxtra to digital alternatives (e.g. TalkBoard, Gmail, Dropbox, etc)	0.00%	0.00%	12.50%	37.50%	25%	0%	4.13	0.60
25	I like using Moxtra	0.00%	0.00%	0.00%	37.50%	50%	12.5%	4.63	0.66
	Total mean average							**4.65**	

Research question 4: What are teachers' perceptions of Moxtra as an online space for blended teaching?

Results averaged between "slightly agree" and "agree," which indicates that teachers are happy with the Moxtra application and consider it a good tool to support blended learning. Teachers feel that Moxtra is user-friendly and designed well. In particular, Moxtra seems to improve teacher workflow. With that said, Item 21, "I think using Moxtra in my teaching helped improve overall student performance," received the lowest mean of 3.88. One teacher commented, "I can't really say whether it helped students or not. They do sometimes express a preference for paper or ask me to print things out for them." Furthermore, Item 23, "I prefer to grade SALC activities on Moxtra rather than paper," and Item 22, "I prefer to receive SALC activities on Moxtra rather than by paper," both received one strongly disagree. As mentioned earlier in the paper, Moxtra's annotation features are not its strong point as poor wi-fi can result in lag when annotating and slow loading times when swiping between pages of a document. Teachers also reported the following:

> Moxtra is the best overall solution for submitting SALCs and other digital assignments.

> I appreciate the eco-friendly benefits of going digital because students can have a quality activity in color. I also like the options Moxtra provides (different colored pens/ highlighters, voice recording/written memos). The collection of the activities is problematic because it is more cumbersome to collect the activities at a certain day/ time.

> I like Moxtra because it saves on paper and reduces clutter. I mainly use it for grading SALC activities and posting to chats related to Freshman English and Sophomore English. I find that grading SALC activities in Moxtra is a bit slower than grading on paper due to loading times, but overall it is a superior alternative to paper for the money and resources saved.

Item 18, "Moxtra improves workflow at the BECC," received a high mean of 4.75, suggesting that teachers are quite happy with Moxtra as a teacher collaboration tool. This is to be expected as the Moxtra application was developed as a tool specifically to support businesses when managing collaborative projects. Teachers at the BECC not only teach a shared curriculum, but also collaboratively design curriculum and work together on various committees. Moxtra serves as an excellent tool to support such a working environment. One teacher stated:

> I think Moxtra has been very useful for commenting on draft General English lessons and BET (Bunkyo English Test) testlets asynchronously. I also think it has saved us a lot of paper. On the other hand, I still find it easier to grade paper assignments. Overall, I prefer Moxtra to paper for student submission of assignments, because it saves money and paper. For work communications, I prefer email and face to face for important things, because sometimes it's hard to keep track of all the different Moxtra folders I belong to.

A few teachers also reported that they use Moxtra outside of work and even in their private life. One teacher stated, "I use Moxtra not only for my professional duties, but also in my private life as well," and another said, "I use Moxtra after working hours a few times a month on work related matters, but I also use it after working hours for non-work related matters as well." Therefore, it would seem that Moxtra's social networking capabilities

make it a very useful application which can be used not only with students, but with co-workers and in one's personal life.

Discussion and conclusion

This study aimed to examine both students' and teachers' perceptions of Moxtra as an online space for blended learning in a language learning context. Moxtra achieved its core purpose, which was to serve as a user-friendly tool offering social networking features as well as the ability for students and teachers to upload, share, and annotate documents easily. Both students and teachers agreed that Moxtra facilitates students' learning, and both prefer to complete SALC activities digitally on Moxtra rather than on paper. Furthermore, both students and teachers felt that Moxtra improved the teacher-student relationship. This supports the findings of So (2016), Alshawi and Alhomoud (2016), Thongmak (2013), and Selwyn (2007), who all reported that social networks are effective communication tools that can improve communication between teachers and students. Although not a focus in this study, the application also served as an excellent e-portfolio system allowing students to house completed assessments, a record of their grades, and assessment feedback. Also, as Moxtra is specifically designed to support businesses on collaborative projects, it is no surprise that teachers felt that the application helped to improve workflow.

However, results for students' perceptions of Moxtra as a tool to support blended learning clearly show that for Moxtra to reach its full potential as a blended learning space, both students and teachers need to utilize the application more. In particular, findings indicated that Moxtra improved the student-teacher relationship more than student-student relationship. Item 18, "Moxtra helps to improve the student-student relationship in a course," received the lowest mean. The majority of students in this study were A1–A2 CEFR level learners not majoring in English, so it is not surprising that students would be reluctant to communicate in English with their classmates on Moxtra or take full advantage of the application's numerous communicative features such as voice tags, audio posts and video chats.

Furthermore, activities on Moxtra were very teacher-student centered. For example, SALC activities and assignments were submitted through each students' private Moxtra binder where they were then checked, annotated upon and graded by the teacher. As for the chat page in Moxtra, it was often utilized by teachers to post announcements and reminders to the class or to contact students individually regarding grades and to give feedback or answer questions. Comments by students in the class binder were generally restricted to commenting on other students' presentations. It is also important to note that a fair amount of class time was dedicated to letting students work face-to-face with group members on collaborative projects, lessening the need to collaborate online. Consequently, the author calls for a similar study with higher level language learners as such students would have more confidence in their communicative ability and perhaps be more motivated to interact on Moxtra. Ideally, such a study would aim to encourage students to collaborate more outside of class on Moxtra and encompass more learning activities that require student-student interaction within Moxtra.

As for teachers' perceptions of Moxtra, Item 21, "I think using Moxtra in my teaching helped improve overall student performance," scored the lowest mean. Teacher interviews revealed that some teachers did not utilize Moxtra beyond being a tool for posting announcements and collecting SALC activities and assignments digitally. Only a few

teachers utilized Moxtra in other ways such as to create voice blogs, peer-comment, and collaborate outside of class. The blended learning environment has affordances that can facilitate or constrain different types of interactions and activities. In the case of this study, it is clear that online activities requiring student-student interaction were constrained as the curriculum gave more focus to face-to-face interactions, taking away from the holistic nature of the blended learning experience.

In conclusion, for Moxtra to be an effective blended learning space, the course must use the affordances offered by both the in-class and online environments. For example, the course could require online collaboration for some projects and more activities necessitating online interaction between students. Teachers not only need to actively participate online, but also facilitate their students' participation and interaction. Successful management of blended learning spaces requires teachers "to think critically about the affordances of the different media in order to continually engage students in meaningful learning and to maintain social presence" (Whiteside, 2015, p. 16). A follow-up study in the future once teachers have become more confident in utilizing Moxtra's social affordances and can better facilitate their students' participation and interaction, may provide very different results for both teachers and students.

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