Introduction

This paper investigates whether several digital tools would enhance L2 language learning in a particular context.

Context for learning

The context for teaching and learning is an Urban Primary School in Christchurch, New Zealand. Many more English Language Learners (ELLs) than before are enrolling at the present time and now represent one fifth of the school roll. The Primary School caters for Year 0-6 children and takes children from both in zone and out of zone. Many of the ELLs enrolled at the current time are from out of zone. One of the reasons given by out of zone parents for enrolling in this school is the robust ESOL programme offered in conjunction with the strong emphasis on technology enhanced language learning (TELL).

There has been a dramatic increase in the number of ELLs in the Junior School in the past two years. Many of these ELLs have had only minimal pre-school education and there is a noticeable decrease in early literacy skills among the newly enrolled five year olds. Therefore it is vital that the school harnesses the best tools in language learning. The school relies on recent research to demonstrate to its community that TELL improves English Language Learning. The study presented by Alhinty (2014) suggesting that the use of the iPad enhanced intrinsic motivation to learn the target language is one such example.

There is a sole teacher running the ESOL programme working four days per week. Due to the large increase in the number of ELLs at the school the teacher by necessity had to categorize the children into three groups by need. The children with minimal English have ESOL withdrawal lessons twice per week. The second tier have lessons twice per term and the third tier are monitored by a running record and analysis of writing taken by the ESOL teacher at three monthly intervals.

The ethnic breakdown of children by age group is shown in Table 1.

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Juniors</th>
<th>Years 0-2</th>
<th>Middle</th>
<th>Years 3-4</th>
<th>Seniors</th>
<th>Years 5-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese</td>
<td>19</td>
<td>12</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>Korean</td>
<td>8</td>
<td>7</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese</td>
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<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taiwanese</td>
<td>0</td>
<td>0</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>Pakistani</td>
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<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysian</td>
<td>2</td>
<td>2</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td>Thai</td>
<td>0</td>
<td>2</td>
<td></td>
<td>0</td>
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<td></td>
</tr>
<tr>
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<td>2</td>
<td>0</td>
<td></td>
<td>0</td>
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<td>1</td>
<td>0</td>
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<td>1</td>
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</tr>
</tbody>
</table>
The figures from Table 1 highlight that the majority of ELLs are of Asian decent with Chinese being the predominant ethnicity of L2 learners in this educational setting.

This school is well advanced in its implementation of technology-enhanced language learning (TELL). The Principal is passionate about using technology to enhance learning generally and very supportive of TELL. The school continues to purchase devices such as iPads, Chrome books, and lap-tops to ensure a technologically rich environment exists. In addition to this there is also a BYOD policy in place. Several ELLs from the seniors have taken advantage of this and have their own device so they always have access to technology to enhance learning in the target language. iPads are used to assist improvement in literacy learning across the school. All children are taught to write collaboratively and share their work on Google docs. There is a large group of children (including ELLs) who belong to the Code club run by the Principal before school twice weekly.

A high number of teaching staff possess considerable expertise in weaving technology into learning. Several staff use specific skills in implementing TELL. At least four staff members have studied language acquisition at a post-graduate level at Canterbury University in the last few years. There are opportunities to share knowledge about TELL at staff meetings and this collaborative learning is encouraged by the school leadership team.

The justification of so much effort and enthusiasm toward technology-enhanced language learning continues to be addressed within the school community. The Staff are encouraged to read widely and keep up-to-date with the latest research on how language is acquired and also the benefits of using technology to assist in this endeavor. As part of the school’s policy on informing the school community regarding learning, relevant research is presented and discussed at Parent Talk Times.

A recent example of this was the examination of Falloon’s (2013) findings on selecting appropriate iPad apps.

**Presentation of tools**

**1. YouTube**

Perceived ease of use

U-tube is very accessible. Communities of learners or indeed individuals with similar interests share links to YouTube videos via other social media sites such as Facebook and email. One only has to Google YouTube to connect. Sound quality is good and the button features of Play, Stop and Pause are self-explanatory. In an educational setting, a class YouTube channel set as private can be created also. This
allows the L2 learners to upload videos they create using the computers’ webcam and microphone.

**Perceived usefulness**

YouTube is very widely used globally increasing student exposure to many cultural and linguistic differences thus adding to cultural connectivity through language. YouTube sits well with the pedagogical approach of a flipped classroom. The benefits of a flipped classroom are especially positive for ELLs as it allows them to learn at their own pace. It is possible to watch a YouTube video several times to reinforce understanding or listen to pronunciation of the target language. Another advantage of this arrangement as suggested by Brinks Lockwood, 2014; Marshall, (2013) is that “we can free up class time and maximize the amount of language (i.e. reading, writing speaking and listening) that students produce in class and out of class.” P 132.

Students can use YouTube outside of the classroom by downloading podcasts or watching videos in other locations. This allows preliminary work to be carried out on a graphic organizer provided by the teacher in preparation for more collaborative and interactive work to be done during class time. In this way precious class time is used for communication and higher order cognitive skills. YouTube material is continuously available and appropriate videos can be used cleverly by the teacher as a way of enhancing motivation, and giving students authenticity in their language learning. Also the wide variety of material available on YouTube affords the students some choice in their language learning.

**Appropriateness for this particular context**

Due to the young age of the learners, the teacher would select the U-tube material to fit certain curriculum criteria. The teacher could construct a simple graphic organizer to allow students to organize their learning before sharing with others. Many discussions can follow YouTube viewing. The learners could reproduce YouTube situated activities in the form of role-plays. Role-plays are a useful follow-up to viewing on YouTube at these learners’ language level.

**2. Duolingo**

Duolingo is a free browser-based app that allows users to learn languages. The languages available to date are Spanish, French, Italian, German, Portuguese and English. The makers have plans to include more languages. It is a popular app because the design is structured to provide enjoyment and motivation to the user. For competitive personality types there is a point system and levels to pass. The lessons are designed in small chunks to fit in with the ideology that digital users will fit learning into daily life by perhaps snatching small blocks of time amongst other activities.
Perceived ease of use

Duolingo is set up on an email, Facebook or Google account and can synchronize across these platforms. Despite it being a free app there are no constraints via interruption of advertisements appearing on the screen. A considerable drawback with young language learners is the challenges of setting up electronic communities of learning. However, a tool such as Duolingo can be an early start in this direction. The ‘friend’ capacity of Duolingo allows selection of a target group of children to compete with each other for points and track each others results out of class hours. This, in a small way, is the setting up of an electronic community of learning which will then pave the way for greater things.

The home screen has a simple learning tree that is very easy to follow for the user. The user must complete a unit successfully at Basic 1 before they may move to Basic 2. The system gives a range of speaking, listening, translating and multiple-choice activities. A number of features support the learner and consider current pedagogical understanding of acquiring a second language. The user can highlight single words or phrases, there is a text-to-speech function, animated feedback is immediate and incorrect responses are repeated. User progress is obvious with a visual tracking bar at the top of the screen. In addition to the tracking bar, progress can be shown on a line graph under the profile link. This profile link allows goals, or settings to be altered by the user. It includes a interactional element by including a leaderboard with progress of friends shown.

The audio quality is clear with the added advantage of being able to skip any audio-based activities or turn them off. This feature is particularly useful if using the app in the public arena.

Perceived usefulness

For young L2 learners Duolingo appeals as it is gamified. It is similar to other digital game based learning (DGBL) tools. It is both visually attractive (animation) and audio attractive (sound effects) with an element of competition. For L2 learners it provides a basic level of language learning, but lacks integrated language use scenarios that would bolster its usefulness to an even higher level. There appears to be a lack of authentic learning. The sentences seem a bit arbitrary and contrived. However, it does introduce new vocabulary and correct grammatical structures.

Appropriateness for this particular context

As the majority of the ELLs are Asian, their parents perceive that homework is a necessary element of learning. Duolingo could be used as an activity for home language learning on a purely individual basis. Its usefulness in the classroom context would be very limited as interaction and collaboration in language learning is of high priority and Duolingo is suited more to individual language learning than a programme that embraces a total and comprehensive language learning experience.

3. Google docs
Google docs is a cloud-based app that has been proven in the field to help primary school children collaborate over learning both within and outside of the classroom.

Perceived ease of use

When students are working collaboratively in small groups the screen rotation and wide-angle viewing allow all group members to see the screen clearly. Due to the light size and weight of the device (iPad) it is very portable yet robust. There is the ability for the iPad to be passed around the team with ease. The audio quality is adequate and there is access to different media forms (present/playback). If working in a group the students can quickly create systems for taking turns to input content while the other group members observe, offer oral feedback and/or check the written output for accuracy. There is ease of networking and the iPad is a reliable tool. However, it must be noted that iPad use alone will not foster collaborative language learning. The teacher must purposely design lessons to enhance collaboration and ensure an interactive atmosphere is developed between group members.

Perceived usefulness

Falloon (2015) indicates that the primary-aged students he studied selected Google docs as their first choice in an app for working collaboratively. The students found it useful to set up and share their work via this tool. They used it during class time and after school hours for homework, extension or catching up on a topic, personal organization and a means to store their work. Google Docs is a top performer for supporting learner collaboration and can be used very successfully with L2 learners. There are some important factors enhancing language learning that are highlighted with this tool. Co-ordination of task activities requires communication between team members whether written or oral. The team members are required to negotiate and interact in specific ways to complete the task successfully. L2 learners can be at various locations and still be able to collaborate on their language learning together. Giving and receiving instant feedback and extensive verbal interaction occurs between peers using this tool. The tool can display multiple and simultaneous interactions between team members. Falloon (2015) found significantly higher levels of device-supported collaboration in public spaces. This reinforces the ability for language learning in a collaborative manner to take place anytime and anywhere.

Appropriateness for this context

Google Docs is a most appropriate tool in this learning context as the children at every level of L2 learning are able to use it according to their abilities. The children at the Foundation level enjoy seeing their labored writing in the printed form. It’s appearance looks professional to them. The older learners appreciate the ability to continue to work on their writing after hours and share it with the teacher who provides feedback. Discussion about the feedback received can take place during the lessons the next day and the cycle can be repeated until the work is complete.

4. E-book tools
The use of the E-book tool is widespread amongst the community and young children observe many adults using these devices as part of everyday life. E-books have been in use for some time now, but a more recent innovation is to personalize learning with more interactive features. E-book technologies are advancing continuously and it is possible to integrate both digital reading and audio book listening simultaneously.

Perceived ease of use
In a classroom context, all that the younger learners require is information to be provided on set up and a brief introduction to each feature before they are ready to begin reading. The E-book screen can be customized for each individual learner with the ability to adjust margin size, page orientation, line spacing, font type, font size and background colour to suit. There is a ‘Go to’ button to find your place in the book, access to digital dictionaries as well as the ability to take digital notes, highlight text and add bookmarks.

Currently, E-books are constructed similarly to a printed book. The screen size is relative, pages are turned and the layout takes on the convention of a traditional book. E-book design and development for children reflects researched wisdoms of literacy learning combined with the interactive principles in multimedia learning.

Ease of use of this digital tool contributes to its popularity. At the present time E-readers are affordable and within the budget of many people. There is now greater availability and choice of digital texts than previously. Available texts have become more sophisticated and there is an additional feature of professional narration synchronized with E-book text.

This read and listen function is called Immersion Reading. It supports students’ comprehension of and engagement with the text. This is very motivating for children. A study by Huang et al (2012) found that children begin to read for longer periods of time with an E-book.

Perceived usefulness

Recent research supports the theory that E-books strengthen literacy development (Korat 2010; Y-M Huang et al. (2012); Larson (2010, 2013) also suggests that E-books “help support readers comprehension by helping them navigate and gain access to the text”. p. 72

A skilled teacher will use the E-book within the classroom to generate discussion and connections between texts and readers. The teacher can guide collaborative and authentic learning outcomes with this tool.

As Y-M Huang et al (2012) suggested the ease of flexibility and accessibility along with the multimedia-enriched visual appeal coupled with the possibilities of integrating supportive materials for personalized learning saw 80% of those users surveyed preferred E-books to printed books. Especially for L2 learners the introduction of new vocabulary within the context of the story is ideal for comprehension. The audio feature also models fluent reading and phrasing which greatly enhances L2’s reading skills.

Appropriateness for this context

E-books are utilized well in this learning context. There is a selection of material at various levels to cater for the range of L2 learning abilities. As advances in
technology continue to make E-books more sophisticated and interactive their usefulness with increase even further.

5. **Toontastic (Digital Story Telling iPad app)**

Toontastic is an iPad app that can be purchased cheaply. It demonstrates how a story can be broken down into subsections to enable students to investigate a literacy theme in more depth.

**Perceived ease of use**

This tool allows children to create greater detail in writing about a) story elements, b) character traits, c) mood, and d) theme. It is important to introduce the children carefully to the new app and show them how to use it. Children benefit from additional time to experiment with the app before creating content for assessment.

**Perceived usefulness**

This app is very helpful in that it encourages children to think more creatively and really develop their story and characters fully. The app enhances learning as the children probe into greater descriptive language and access many adjectives. The animation feature is very appealing to young children and allows their storyline to come to life. The app works well for very simple stories as well as more complex and sophisticated plots and sentence structures.

Hwang et al (2014) conducted research into how children can improve their English as a foreign language by using mobile devices in familiar situations. This research supports the use of an app such as Toontastic as its impact on learning achievement is far greater when compared to getting children to write with pen and paper.

**Appropriateness in this context**

Apps such as Toontastic fit nicely into this learning context as the children are young L2 learners. As the app is relatively cheap, several of similar apps can be purchased within the annual budget. The children are motivated to use this tool because it is somewhat gamified and this is appealing. This app that has an addictive edge for many learners to remain engaged for sustained periods of time. It offers simple language learning benefits to young L2 learners.

6. **Puppet Pal**

**Perceived ease of use**

The app is very easy to access as an online software programme. The touch screen technology is simple.
Perceived usefulness

The value that Hartson (2003) places on “cognitive affordance, physical affordance, sensory affordance and functional affordance” p. (323) are all present in the Puppet Pal app. Young L2 learners go through a process that embraces rich language skills throughout. Firstly the learners’ choose the puppets, and create dialogue and interactions based on prior learning. The L2 learners take turns to record their puppet show. A listening activity follows as the learners replay the video and can self assess its qualities and flaws. This induces a high level of oral discussion and engagement in the target language. The learners can decide to make several more recordings of the same activity with the intention of improving their target language each time. The entire process helps the learners create and built greater knowledge and skills pertaining to the target language. Learning takes place both visually and through audio. In addition to this, much critical thinking is developed through allowing the learners to take more ownership of their own language learning. Captured video is also evidence of learning. Oral competencies in the target language can be monitored, but moreover a process of self-reflection and self-regulation of their own language development can be undertaken by the learners themselves.

Appropriateness for this context

The tactile interface of the touch screen appeals to young learners and allows them to be independent of the teacher throughout the process of creating a video recording of their own puppet show. This affordance promotes active engagement in learning. Learners are very interactive and meaningful language learning occurs. The multimodal nature of the tool allows learner choice and can cater well to individual learning styles and varying levels of English proficiency.

Video presentation

This video presentation aims to clearly demonstration the functions and usefulness of the digital tool Puppet Pal.
https://www.youtube.com/watch?v=I8hRi8x_dXg

Conclusion

The affordances of the abovementioned selection of digital learning tools outweigh the constraints. Achieving a total absence of negative features will continue to challenge designers. Apart from the constraints of specific digital tools there continues to be the general argument surrounding content and safety issues for language learners on-line. However, to counter these negative aspects of digital technologies, there is overwhelming evidence that the technologies enhance language learning. Overall, these tools provide the user with ample opportunities for authentic and meaningful language learning. The key to this is the way in which the tools are
used. Indeed the multimodal affordances build into iPads “contributes to learner autonomy, which is crucial for successful learning for all language learners (Benson, 2007; Bransford et al., 200; Freisen, 2009, Pellerin, 2013, Pellerin, 2014).

The main purpose of this particular L2 classroom is to provide L2 learners with very collaborative lessons. Predominantly these are very young children who need a supportive and encouraging environment in which to practice their second language. The abovementioned digital tools promote self-efficacy. That the learner is developing conscious awareness is an important consideration in language learning. Kozlova (2013) as cited in Pellerin (2014) says it “refers to learner autonomy, or learner ability to regulate their own cognitive processes and therefore, their own learning, which is encouraged by social interaction” (p. 60).

With many of the new technologies it is a changing role that the traditional teacher must adapt to. The teacher no longer merely pours knowledge into the learner but becomes a facilitator using TELL. The quality of the interactions the L2 learner will experience, depend in part on the way the teacher provides scaffolds and designs particular digital tasks. Digital tools assist in fostering a community of learning. The L2 learners see everyone is a learner including the teacher. This is a revelation and may help learner anxiety. Additionally, inclusion of peer feedback in the task allows learners’ to see that they themselves are an essential element in learning process with these digital tools. This builds up a great deal of communicative competence within the group. These digital tools enhance L2 participation, motivation and engagement.

Nation’s (2007) four strands of authentic input, opportunities for output, focus on form and fluency training to ensure success in language acquisition is inherent in these digital tools. This solid pedagogy is a justification for continuing to use digital tools widely in everyday language learning. At the present time, generic tools such as YouTube have the most scope for best use in language learning contexts. Collaborative digital tools like Google docs are useful for tasks requiring written communication. Software apps have some limitations but contribute greatly to enhancing language learning via learner engagement and motivation. However critics such as Orgtega (2009) are adamant that future research on TBLT and technology needs to consider more ‘real world spaces’ as cited in (Pellerin 2014). This thinking leaves us with the exciting prospect of greater collaboration between computer scientists, linguists, and language teachers to produce even better TELL tools in the future.

References


