CALL to Arms: Generations Clash Over Digital Technology in the Foreign Language Classroom

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Abstract
Is a smart phone a toy or a tool? Students can't get enough of it – after all, social media notifications and viral videos do take time to reflect on - while teachers, quite understandably, are dismayed to see an excellent educational tool used purely for entertainment. This paper posits that these two concepts and attitudes are not mutually exclusive. It proposes a possible common ground, 'edutainment,' the integration of interactive mobile technology with the classroom for new opportunities to effectively achieve learning objectives in a light-hearted spirit. The research study described below examines the attitudes and intentions of 120 Thai EFL university students towards learning with a playful, competitive smart phone application, hoping to find out if there is any resistance to adoption, and if so, how to overcome these obstacles. Results indicate general acceptance, widespread use, and an altogether positive attitude to the software. The paper concludes by highlighting student impressions of its relevance to their studies and offering recommendations for further integration of digital teach-nology into foreign language classrooms.

Keywords: CALL, mobile technology, foreign language learning

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1. Introduction

Students send texts, watch videos and update social media. A lecturer facilitates understanding of content through relevant activities. As long as these do not happen at the same time, there is peace in the classroom. However, when these conflicting interests collide, a desperate tug-of-war begins. Teachers resent the recreational use of mobile devices, saying it is detrimental to learning, while learners complain when their instructors prevent them from posting pictures of last night's dinner. Today's students spend their days hooked up to one screen after another: a flat-screen TV at home, GPS navigation in the car, a tablet/iPad for fun, a laptop computer for homework, and of course, a smart phone as often as possible. In school, however, they get in trouble when any of these screens leave their school bags. If they break the rules and have separate from these devices, even if only till the end of the day, the emotional pain they feel amounts to that of losing a limb – which is essentially what a mobile phone has become for most of them.

This paper argues that there exists a common ground, a learning-centred intersection where a digital mobile device is an asset, not a liabilitiy. It examines student behaviour and perceptions about an interactive multimedia software application in the specific context of an international university in Thailand. The concept of digital technology integration *per se* is not new at this institution; every classroom is equipped with a projector and a computer with Internet connectivity. This study documents an educational initiative where both parties, teachers and students alike, step out of their comfort zone: instructors have to accept that they are not the sole educators in the classroom, while students need to take responsibility for their own learning and realise that a smart phone can be much more than pure entertainment.

This *something old, something new* approach to education is often called blended learning. One of its many pedagogical advantages is that it moves learning beyond the classroom. Students have instant access to authentic material, allowing them to make use of "dead time" (time spent waiting for a bus, their friends, or to be seated at a restaurant) which would otherwise be lost for studying. Another benefit is that a computer never gets distracted, bored or tired of being asked the same questions, of having to repeat the same explanations over and over again (Nunan & Lamb, 1996). In addition, this indefatigable virtual tutor may provide personalized training, or offer much-needed remedial practice to struggling learners.

Yet another important aspect of blended learning concerns information flow. In a traditional classroom, subject-related information flows in only one direction, from teacher to students (T2S). In a blended environment, learners are encouraged to interact with each other (student-to-student (S2S)) and/or with the computer (S2C). Another common scenario involves instructors who are less familiar with computer technology and need to rely on their students' tech-support advice (S2T). Blended learning is a novel approach not only in the sense that it incorporates digital technology, but also because it reshapes and redefines conventional roles of the teaching/learning process.

2. Objectives

This study attempts to find positive relationships between students' beliefs and actual use of a target software called Quizlet. It investigates how this particular mobile application supports educational goals, especially in the context of undergraduate foreign language learners from the millennial generation. Although examining the attitudes of all stakeholders (i.e. learners, teachers and school administrators) may provide a clearer picture, the focus of this paper is restricted to analyzing the students' perspective, their expectations, opinions and decisions. Instructors and their beliefs concerning the impact of adopting mobile technology, as well as curriculum design decisions and policy recommendations by school administrators are hoped to be explored in a follow-up study.

The paper addresses the following research objectives:

1. To identify the relative significance of factors that lead to Quizlet use;
2. To explore how beliefs, attitudes and intentions predict actual usage;
3. To consider whether access to the software drives actual usage, and
4. To actively involve participants in content creation.

3. Literature review

This paper uses Davis' (1989) *Technology Acceptance Model* (TAM) as its conceptual framework. Although this model is widely used in social psychology and business management, the author believes it is suitable for computer-related educational research purposes as well. Designed to explain how new technology is received and used, it identifies two specific beliefs, perceived usefulness and perceived ease of use, a combination of which first affects attitudes and behavioural intentions, then leads to actual use (see Figure 1).

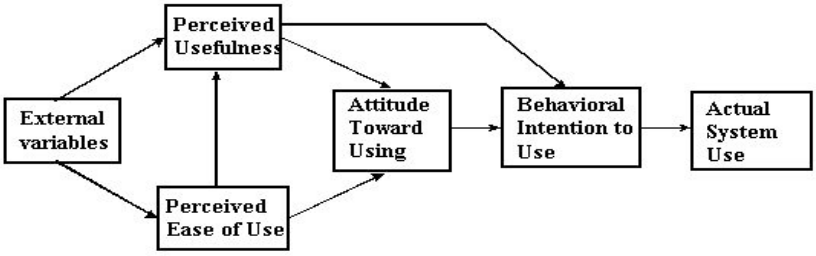

Figure 1. Technology Acceptance Model. Source: Davis et al., 1989

Davis et al. (1989) defined perceived ease of use as the degree to which a person "expects [that using a particular] system [would] be free of effort" (p. 985). He also described perceived usefulness as "the degree to which a person believes that using a specific application system will increase his or her job performance" (ibid). External variables include system design, task and

user characteristics. These factors were further refined by Venkatesh et al. (2003) who proposed a *Unified Theory of Acceptance and Use of Technology* (UTAUT). This model extends the scope of intention to use by three major factors: performance expectancy, effort expectancy and social influence. In the current paper, performance expectancy refers to students hoping that Quizlet will help them pass exams; effort expectancy means that it does so without an unreasonable amount of time and effort; and finally, social influence is interpreted as peer pressure; whether or not others view Quizlet use as beneficial or unnecessary.

Perceived benefits are a powerful factor in technology use. As Dörnyei (2007) points out, "it is highly unlikely that every student will do his/her best for a project in which they have little interest and which has no direct bearing on their school grades" (page 189). In an immediate, often unconscious cost/benefit analysis, an assignment is evaluated "within an economic framework of how much attention a student must invest in completing it" (Lankshear & Knobel 2002, cited in Purushotma, 2005:94). Consequently, if a student is not convinced about the ease and usefulness of an activity, they will be less inclined to take part in it.

Sharma & Barrett (2007) describe blended learning as a combination of face-to-face teaching and appropriate use of technology. A blended model can also be defined as "a thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (Garrison & Kanuka, 2004:96), with a [potential] "outcome [of] increased efficiency and convenience for students and professor" (ibid). Hubbard (2009) posits that the online aspect improves learning efficiency ("learners pick up knowledge or skills faster and with less effort"), learning effectiveness ("learners retain knowledge or skills longer, […] and/or learn more"), and convenience, because "learners can study and practise […] across a wider range of times and places" (page 2).

The "digital divide," according to the Merriam-Webster dictionary, encompasses "economic, educational, and social inequalities between those who have computers and online access and those who do not." Warschauer (2002) extended the original scope of the concept, including factors and resources that allow people to use technology well, i.e., those of content, language, education and literacy. By this definition, all students who participated in this survey were digitally literate. The overwhelming majority had access to both a mobile phone and the Internet; they were encouraged to learn with the digital version of a part of their textbook; all were reasonably fluent speakers of English, and finally, they could reasonably be expected to be familiar with touch-sensitive smart phone screens, with swipe / tap navigation within software applications. However, what Warschauer failed to take into account was the importance of generations. Today's young learners are sometimes referred to as "the Millennials." They have access, they have the know-how, and their skills and preferred channels of communication are mostly technology-based. Not accommodating their learning styles could lead to "a failure to build a bridge between the technological world Millennials live in and the classrooms we expect them to learn in" (Considine et.al., 2009:473). The amount of smart phone use in classrooms has reached a critical mass, a level where restricting it is not just a Herculean effort, but is also counter-productive. This techno-savvy generation expects a learning experience that is

fundamentally different than that of their parents, and when they are refused, they resist and rebel.

Technological innovations are especially susceptible to fads, of getting popular very quickly, then disappearing just as fast. Gartner's (www.gartner.com) *Hype Cycle* (Figure 2) graphically describes the expected lifespan and popularity of fresh initiatives. This model is typically used in the business world, but this author proposes adopting it for educational research as well, in order to highlight and predict potential obstacles to classroom technology integration.

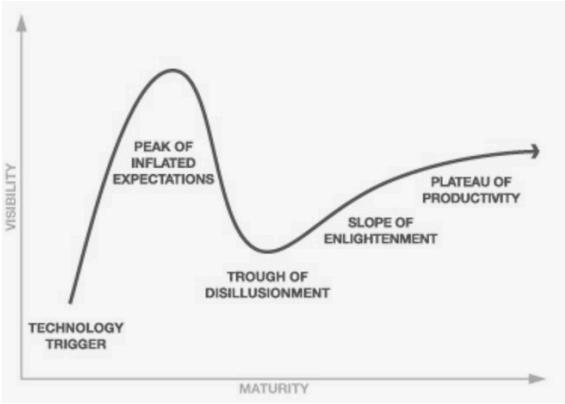

Figure 2. Gartner's Hype Cycle. Source: www.gartner.com

The graph begins with a "technology trigger," the introduction of a new product/program/process, often accompanied by bold promises. People are inspired, and form "inflated expectations" of what it is rumoured to be capable of. When the product cannot live up to these high hopes, people get discouraged and many of them abandon it altogether. Later on, with reasonable expectations and more time spent exploring the program's capabilities, comes "enlightenment," and finally, "productivity," where "mainstream adoption starts to take off" (Gartner). Learners in digitally enhanced language courses go through the same stages; therefore, they need to be informed about the strengths and limitations of computer technology in the classroom so they can look at it as a tool that can improve their foreign language skills, rather than a substitute to class attendance.

4. Context

Decontextualized coursework (Egbert, Paulus and Nakamichi, 2002, cited in McMurry et al., 2016) poses a major threat to both motivation and achievement. Awareness of reasons behind course content decisions tends to increase student involvement. In order to avoid student sentiments that the word lists in each unit of their English II textbook are *ad-hoc* selections of unrelated lexis, it is important they realize that in the context of tertiary studies, success requires knowledge of academic vocabulary.

Academic vocabulary is defined as "non-high-frequency vocabulary common across academic disciplines" (Schmidt, 2010:78). Assumption University (AU) has an international, multi-cultural

faculty and student body; therefore, apart from foreign language courses, the medium of instruction is English. Consequently, familiarity with interdisciplinary phraseology is expected of students who need to interpret, analyze and critically reflect on subject-matter areas in faculties as diverse as Communication Arts, Business Management, Law or Nursing.
In English for Academic Purposes (EAP) courses of increasing difficulty, AU students acquire the skills necessary to successfully meet course requirements. A fundamental criterion for the selection of course content, including vocabulary, is to improve comprehension of scholarly texts, and to increase the quality of students' written work and interpersonal communication skills. The majority of these word families come from the Academic Word List (AWL) developed by Coxhead (2000). During mid-term and final exams, a selection from each set of words is checked as part of students' progressive assessment. When they are able to confidently form meaningful, grammatically correct sentences, they have mastered the lists, helping them "produce coherently structured written assignments." (Coxhead, n.d., page 1)

This research study used Quizlet, a multi-platform mobile application, to investigate student attitudes towards EFL-related technology. In a separate but related survey three months earlier, students' self-reported mobile technology use had been found to be restricted to electronic dictionaries and occasional Google ® searches for course-related information. By offering a multimedia tool that they could access any time and anywhere, it was believed that this new approach would provide a significant enough departure from teacher-fronted vocabulary activities, as well as from students' habitual purposes of smart phone use, i.e., entertainment.

Quizlet was chosen for reasons of convenience, relevance and interactivity. Although many other similar apps are available, the author had been introduced to it in a conference plenary session by keynote speaker Pete Sharma (co-author of *Blended Learning*, 2007). Furthermore, as Burston (2014) argues, outside distractions make mobile-based language learning better suited for short bursts, rather than longer stretches of concentrated attention. The software uses an offline database and creates a shortcut icon on users' smart phones, thus providing convenient, instant access. Secondly, the Quizlet mobile app was expected to be compatible with the needs of the current generation of learners and their learning styles. Nicholas (2008) points out that millennials expect communication [and instruction] via technology; therefore, by suggesting a study option that resonated with them, it was hoped that its adoption rate would score high on the "actual uptake continuum" (Davison, 2013), i.e. more students would be interested in giving it a try. Finally, Quizlet employs an interactive, almost game-like approach, and the satisfaction of being at the top of the leader board in one of its mini-competitions was hoped to further motivate students to playfully acquire academically relevant English vocabulary.

5. Research Design

Data for this project was gathered between mid-October and early November 2015 from 121 first- and second-year EFL learners. They were enrolled in an undergraduate, intermediate-level (English II) course at Assumption University, Bangkok, Thailand. Participant selection followed a convenience sampling model: faculty members were requested for assistance, and all the students in their randomly assigned classes were surveyed.

In the orientation phase, students took part in a 20-minute demonstration, were shown the features of the software, and were assisted in downloading, installing and registering it on their mobile devices. Phase 2 took place about one week later. In compliance with ethical guidelines, each participant signed a consent form which outlined the purpose of the study and highlighted its voluntary and confidential nature. Pages 2-4 of this self-completed questionnaire package, which on average took about 15 minutes, contained a total of 35 descriptive, factual, behavioural and attitudinal questions. Responses were organized under the headings "Biographical information" (6 items, structured), "Actual Use" (9 items, Yes/No), "Perceived Ease of Use" (6 items, Likert-scale), "Perceived Usefulness" (4 items, Likert-scale), "Attitude toward Using" (6 items, Likert-scale), and "Intention to Use" (4 items, Likert-scale). Two questions in the Likert-scale categories were reverse coded to avoid response bias, and these scores were inverted during evaluation.

Between Phases 1 and 2, i.e., during the one-week experimental period, students were encouraged to freely explore the program and to form opinions about its strengths and weaknesses. It was hoped that their insights and reflections would reveal positive relationships for the hypotheses of this study, which are outlined below.

Digitally literate Millennials expertly handle mobile software that requires them to tap or swipe items on a smart phone screen. Familiarity with navigating within these applications was expected to make Quizlet use easy. Past experience with similar program designs and modes of manipulation, and the fact that learning to use this program requires only a moderate amount of effort are three factors that were expected to characterize student impressions.

Hypothesis 1: Perceived ease of use positively influences attitude toward use.

Although a crucial factor in itself, a user-friendly interface does not guarantee acceptance. It is likely that students preparing for examinations focus on end results, on usefulness instead. Expected benefits of educational software must also be taken into consideration when attitude toward use is defined.

Hypothesis 2: Perceived usefulness determines attitude toward use.

Positive beliefs about the ease of use and usefulness of a program, or satisfaction with its demonstrated features do not necessarily lead to intentions. A user may acknowledge the benefits of an activity, but still be unwilling to try it themselves. The next hypothesis posits a close correlation between positive attitudes and a student's intention to use Quizlet.

Hypothesis 3: Attitude toward using leads to increased intention to use.

Regardless of a user's willingness regarding a specific program, he or she may still not get around to actually using it. Time constraints, other commitments, or forgetfulness are important factors that negatively affect whether or not a user actually launches the app. Conversely, a person will not use a program voluntarily if they are not convinced of its merits.

Hypothesis 4: Intention to use is directly and positively associated with actual use.

In a blended classroom, information flows in multiple directions. Students help each other (S2S), and sometimes even advise their technologically less inclined instructors (S2T). In addition, if they are satisfied with a program, they might tell their friends in other classes about it. During Phase 1, they were not overtly encouraged to share their experiences, but two items of the questionnaire in Phase 2 specifically asked about the future likelihood of recommending Quizlet to others.

Hypothesis 5: Satisfied active users will recommend Quizlet to other students.

The conceptual model proposed in this study and its hypotheses are presented in Figure 3.

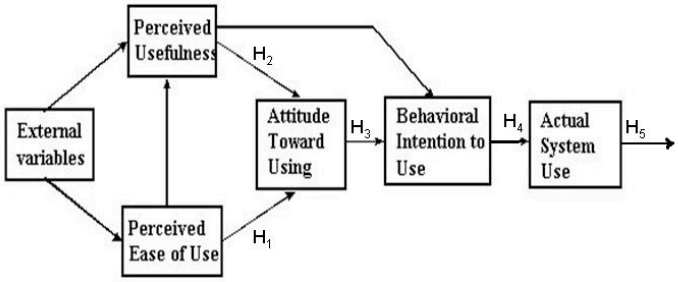

Figure 3. TAM model for Quizlet with hypotheses

5. Data analysis and results

Raw data from the questionnaires was processed using IBM SPSS 23.0 analysis software. Descriptive biographical statistics of the participants are presented in Table 1.

Respondent characteristics	Frequency	Percentage
Gender		
Male	41	33.9
Female	80	66.1
Age (in years)		
17-18	3	2.5
19-20	107	88.4
21-22	9	7.4
23-24	2	1.7
over 25	0	0
Owns a smart phone		
Yes	121	100
No	0	0

Has mobile Internet		
Yes	119	98.3
No	2	1.7
Hours spent online / day		
less than 1 hour	2	1.7
1-3 hours	19	15.7
4-6 hours	52	43.0
over 6 hours	48	39.7

Table 1. Descriptive respondent statistics

Cronbach's alpha values were all above the recommended benchmark of 0.7, proving the reliability of the model. Exploratory Factor Analysis batteries returned .822 for Kaiser-Meyer-Olkin (KMO) measure for sampling adequacy (checking for variance among variables, with suggested values above 0.5), and 1265.659 for Bartlett's test of Sphericity at the .000 significance level. According to Factor Extraction and Eigenvalues, the eight strongest factors accounted for 62.684 % of total variance overall. Finally, a Multiple Ordinary Least Square Regression sought to identify possible cause-and-effect relationships between dependent variables (Attitude, Intention and Actual Use). Figure 4 shows the results of hypotheses testing, relationships between variables, and their significance.

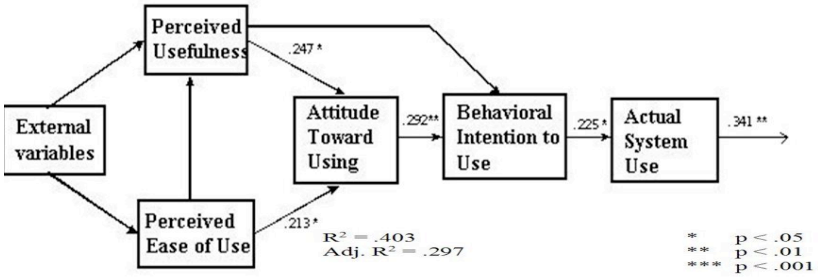

Figure 4. Hypothesis diagram and test results

Actual use is a reliable indicator for educational technology acceptance. Tables 2 and 3 summarize the results of the Actual use regression equation, with statistically significant evidence for both current and projected system use.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.397	1	6.397	8.241	.005[b]
	Residual	92.380	119	.776		
	Total	98.777	120			

Table 2. Regression analysis for Actual use (1)

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.880	.176		10.669	.000
Did you use Quizlet during the past 7 days? (Yes=1; No=0)	.568	.198	.254	2.871	.005

Table 3. Regression analysis for Actual use (2)

The frequency graph in Figure 5 presents actual system use in a visual form, highlighting student groups that are of special interest for long-term success.

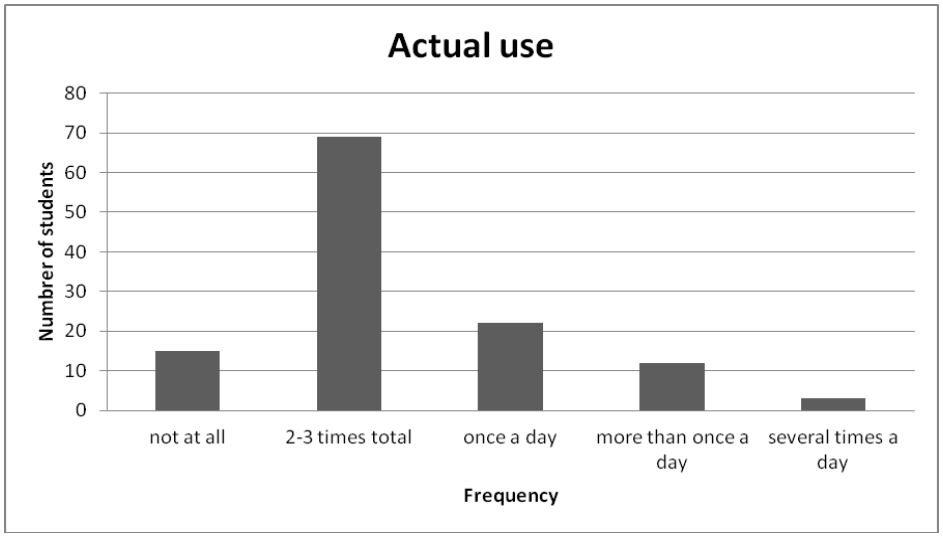

Figure 5. Actual use

Quizlet allows registered users the freedom to create card sets in any language. A reliable indicator for Actual use is students designing their own word lists, especially if they do so without being prompted by their instructor. Several participants figured out how to modify the original English input, generating personalized sets in their mother tongue. As computer text-to-speech and an auto-play feature are both available for a number of languages, a smart phone and a pair of Bluetooth headphones were all they needed for a hands-free audio dictionary to review the target vocabulary lists – without the mobile ever having to leave their school bag.

6. Conclusions and discussion

The aim of this paper is to explore how attitudes and intentions can predict the use of an educational software application called Quizlet. It examines whether access, ease of use and usefulness lead to acceptance of digital teach-nology; whether learners find it beneficial enough to add *education* to the many functions they associate with their smart phones. Almost every participating student had a mobile internet package, and by their own account, 43 % spent between 4-6 hours a day online, with almost as many admitting regularly spending over 6 hours every day on the Internet. Since Quizlet is free to download and use, by having a phone with Internet connectivity, the majority of today's language learners can overcome the single most important obstacle to technology integration: access. Schools no longer need language laboratories, or to invest in expensive IT infrastructure: every student comes to school with a mobile device that can facilitate language learning both in- and outside the classroom – even in cyberspace.

However, it would be a mistake to equate access with success. As Hyland (2013) warns, access does not, by itself, guarantee learning. Teachers need to motivate, to constantly encourage students, and when in the classroom, to monitor that phones are used for educational purposes only. Online entertainment or social media are irresistible distractions, but with clearly communicated and enforced guidelines – which students should help create – this interference can be kept to a minimum.

The threat of disciplinary action is a poor, short-term motivator. Being creatively involved in content creation, on the other hand, may instil in students a long-term perspective, getting them one step closer to their future goals with English. Encouraging students to participate in making Quizlet sets on their own may result not only in a sense of ownership, but also in increased willingness to actively learn, rather than passively consume, content that is tailor-made for (and by) them.

Nation (2006) explains learning burden as the relative difficulty of acquiring new words in a foreign language, "how closely [form, meaning and use] relate to knowledge the learners already have" (page 448). Academic vocabulary, by definition, has a heavy learning burden. Its inherent difficulty is in stark contrast with its relative usefulness for success at university. Once students realise the value of Quizlet as a learning tool, this new format of content delivery and review may take away some of the burden of memorizing long lists of complicated words.

In statistical analysis, Eigenvalues indicate factors that account for variance. The most significant components of this analysis in descending order of strength include students using Quizlet often to prepare for exams, recommending it to their friends, and using, but not necessarily insisting on, the audio feature. In other words, computer text-to-speech synthesis is not advanced enough for pronunciation teaching, but on the other hand, participants intended to use the software (thus proving Hypothesis 4) and they told others about it (proving Hypothesis 5). Regression analysis found a strong correlation between perceived ease of use and attitude (verifying Hypothesis 1),

between perceived usefulness and attitude (supporting Hypothesis 2), and finally, between attitude and intention to use (proving Hypothesis 3).

Actual use data is presented in Tables 2 and 3, as well as Figure 5. The p-value for F is .005 (very significant), a result which means that no sampling error occurred during the procedure. The unstandardized β value of .568 (at the p=.005 significance level) suggests that the slope of the equation for Quizlet users is positive, meaning that the more often a student uses the software, the more likely it is that he or she is going to return to it. Figure 5 identifies 12.4 % of the target population that reported no use whatsoever. Reasons for use/non-use were not part of the original survey; therefore, the motives of this group of students are unclear at the moment. Future investigations of student resistance would be a possible complementary study to fill the gap in understanding left by this research project.

7. Limitations

This paper set out to explore student beliefs, intentions and behavioural attitudes toward a multimedia software application called Quizlet. It provides a cross-sectional snapshot (Dörnyei, 2007) of the perceptions of undergraduate EFL learners regarding the integration of a specific digital educational technology tool into the curriculum. This section of the paper outlines four occasionally overlapping factors that have been found to affect Quizlet use: deadlines, cognitive bias, scope and logistics.

Firstly, students are less inclined to practice if the exam is weeks away, but a test the following morning may provoke a last-minute effort. Nation (2006:452) highlights the difference between massed learning ("words studied intensively for a period of time") and spaced/distributed learning ("[the same words] repeatedly studied for briefer periods of time at increasingly spaced intervals.") This definition implies that cramming for tests the night before rarely results in long-term retention. A quick flip through cards or a mini-game in Quizlet, on the other hand, takes but a few minutes, and regular, cyclical review sessions may bring about long-term benefits. Secondly, the bandwagon effect in psychology "describes the tendency to think or act in ways because other people do" (Taylor, 2011). The final outcome of many political or marketing campaigns also revolves around the concept of *the more people think or act in a certain way, the higher the probability that others will follow suit*. Millennial adolescents and young adults are sensitive to trends, especially if influential peers are perceived as having an advantage by using a certain product. The present paper found the bandwagon effect to be an important, if unexpected external variable that, while not tested specifically, still influenced the end results. The third area that would benefit from further scrutiny is scope. This research project involved 8 out of a total of 91 classes in the English II program offered in that particular semester. There were 121 respondents, covering 5.49 % of the target population, thus satisfying requirements for external validity. At first glance it would seem that results obtained here could be generalized for the entire English II student body. However, a shift in attitudes and behaviours cannot be expected to come about overnight, nor without help from faculty – most likely through a relatively large investment of energy and enthusiasm on behalf of instructors. Gartner's Hype Cycle (Figure 2) begins with a sharp rise; if this surge could be sustained with the help of the bandwagon effect, if

Quizlet could become both trendy and popular – as well as seen as a possible contributor to long-term academic success – this positive image would probably support its widespread adoption.

Finally, the logistics of integration must also be considered when proposing changes to curricula. Following institutional guidelines, teachers will have to make decisions about the extent to which they wish to make Quizlet a part of their classroom routine. Should they use the official academic word sets or create their own? In an otherwise tightly packed syllabus, how often and for how long should they let students "play around" on their phones? Should they devote valuable class time to Quizlet games at all, or assign vocabulary learning as homework and count on students being responsible enough to actually do it? These are all questions that will need to be answered during continued evaluation and improvement of the Quizlet initiative.

8. Recommendations

Offering instant results, creating inflated expectations among students, faculty or school administrators would be unrealistic, unwise and probably untrue. Quizlet integration should be perceived as an extension to the current AU teaching/learning framework where technology-assisted language teaching is already expressly emphasised. Giving students an option to take English language learning into their own hands – literally speaking, – making allowances for their personal digital devices and the resulting attitude shift, on the other hand, may yield positive effects. Pedagogical implications that point towards recommendation to adopt include student autonomy, interactivity, automatic error correction, immediate feedback, and the fact that the rationale behind the activity (acquiring academic vocabulary) is never in doubt for anyone concerned.

Results of the present study may be interpreted as that of a needs analysis, with findings that seem to support a move toward adoption. Its subjects are members of the millennial generation who are empowered to create and encouraged to be responsible for their own learning. Working in teams on academic vocabulary fosters interpersonal skills; networking socially offers a chance to creatively and collaboratively approach problem-solving, while having a degree of control over subject matter, however small, inspires them because they feel their input is valued, that they are taken seriously.

Heterick & Twigg (2003) assert that a blended learning experience is mutually beneficial for both students and their *alma mater*. Reporting on the findings of a survey of student performance and achievement carried out in 30 academic institutions in the United States, they indicate "increased course completion rates, improved retention, better student attitudes toward the subject matter, and increased student satisfaction." This paper makes no such bold claims; it does contend, however, that Quizlet integration has the potential to make a modest contribution to the teaching and learning of English as a foreign language at Assumption University. The ultimate question is not *whether* or not Thai academic institutions should augment existing blended and online curricula, but *when*. Methodology that incorporates multi-modality can reach students any time, anywhere. This personalized, constantly updated and available training can effectively engage Millennials, and make them feel that "teachers finally speak their language."

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