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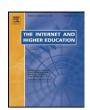
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Facebook: An online environment for learning of English in institutions of higher education?

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ABSTRACT

Facebook (FB) is currently considered as the most popular platform for online social networking among university students. The purpose of this study is to investigate if university students consider FB as a useful and meaningful learning environment that could support, enhance and/or strengthen their learning of the English language. A survey was carried out with 300 undergraduate students at Universiti Sains Malaysia (USM), Penang. It was found that the students believed FB could be utilized as an online environment to facilitate the learning of English. Nevertheless, teachers or language instructors have to integrate FB as an educational project with predetermined learning objectives and outcomes for the learning experience to be meaningful. It is suggested that future research should focus on the meaningfulness of FB to students' language learning experiences.

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1. Introduction

In the 48th Annual Japanese Association of College English Teachers (JACET) Convention that was held in Sapporo, Japan (4-6th September 2009), Mark Warschauer delivered an online keynote address live from the United States, entitled "Teaching for Global Literacy". In that keynote, Warshauer argued for the construct of global literacy with the aid of online media. He postulated that "computer-mediated communication is one of the oldest yet still most valuable tool of network-based language teaching, as it puts learners in direct contact with others for authentic communication" (p. 28), and therefore, has positive outcomes for teaching and learning of English. In his lecture, he used computermediated communication (CMC) tools, blogs and wikis as examples of online media to promote global literacy. Facebook (FB) was not discussed even though it is one of the leading social networking spaces that applies many of the elements of computer-mediated communication tools (such as synchronous and asynchronous discussion and sharing pictures and video capabilities).

Later in the question and answer session, the presenter was asked if FB had been researched or used for the purpose of teaching and learning of English, to which he responded that he had not come across any, and reasoned that FB is more of a social network or space rather than a learning environment for English. Further discussions that took place in the question and answer session prompted a study to discern and ascertain if FB could be a space for learning English, especially in the context of Malaysian university education where the standard of English has deteriorated.

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This deterioration began particularly after the Malay language replaced English as the medium of instruction in schools in 1980. English was then given official status as a second language in Malaysia. The need to learn and master English is demanded at every level of education, from primary to higher education because of its *lingua franca* status and its importance for business sector and knowledge dissemination. However, the Malaysian students' performance in public examinations and at the university level have been poor. Hence, the teaching and learning of English in Malaysia is closely monitored and often debated in the Malaysian parliament (Kabilan, 2007). In order to further encourage the learning of English, the use of information and communication technology ICT and Internet platforms such as FB to assist teachers in teaching English is widely encouraged in Malaysia at all levels by the Ministry of Education and the Ministry of Higher Education.

It would be interesting to observe if university students are able to improve their English through this new way of communication since, according to Lempe, Ellison, and Steinfield (2006), an increasing number of university students have turned into avid users of FB, who login frequently. Godwin-Jones (2008, p. 8) suggests that it would be "logical to leverage the current student generation's heavy reliance" on social networking platforms, like FB, in support of language learning. Also, in view of the fact that FB is currently considered as the most popular platform for online social networking, it would be worthwhile to investigate if there are activities that directly or indirectly lead to the learning of English. It is estimated that there are 350 million active registered users of FB, with 50% users logging in to FB on any given day and more than 65 million active users currently accessing FB through their mobile devices (www. facebook.com). Given the huge number of FB users, would FB be an efficient learning environment for university students to facilitate their learning of English? What are the views of university students of learning English through FB? Can FB truly augment and support students in terms of learning English?

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Therefore, the purpose of this study is to investigate if students consider FB as a useful and meaningful learning environment that could support, enhance and/or strengthen their learning of the English language. This research would enable educators and researchers to identify and comprehend how online social networking platforms such as FB could contribute to English language learning. In addition, we could have a better picture of how second (or third or foreign) language learners could improve their language ability through online social networking platforms, especially in terms of writing, reading and vocabulary. With such knowledge, researchers and practitioners will be able to devise and develop specific, appropriate and creative pedagogical ideas or methods that make effective use of FB for English language learning. The research questions for this study are:

- 1. What are students' general practices or uses of FB?
- 2. Do the students consider FB as an online environment that facilitates their English language learning? If yes, in what aspects?

2. Literature review and theoretical perspectives

2.1. FB as an environment to learn English?

The researchers carried out an Internet search and found many websites that demonstrate and guide teachers on how to use FB for classroom teaching and learning purposes. Also, articles of different length and depth on FB appear in various educational as well personal web pages, discussing the advantages and disadvantages of FB, reasons to use FB for teaching and learning, and different teaching ideas based on FB. FB, with its unique features such as feed, online games and chat encourages users to interact and engage with anyone from any parts of world in any language that they are comfortable in. However, since most of the features are in English, one has to understand English in order to participate in the activities and functions provided by FB. All the above features of FB indicate that it has potentials for English language learning in higher education institutions.

Hence, we concur with the view of Godwin-Jones (2008) that tools and platforms such as FB, "that enhance communication and human interaction can potentially be harnessed for language learning" (p. 7) and have become new sites for potential research (Bloch, 2008). Bloch (2008) claims that, from the perspective of students' writing, while there has been a lot of anecdotal evidence, there has been little research on how creating FB pages improves their writing. In a conceptual paper, Blattner, and Fiori (2009) discuss and examine how FB can provide opportunities to enhance the "development of socio-pragmatic competence in language learners" and the "sense of community in language classrooms" (p. 17). In addition, Blattner, and Fiori (2009) also point out that FB can be utilized for authentic language interaction, and can be used to increase motivation and improve the performance of English language learners. They argue that FB, has "unique features that offer constructive educational experiences while maintaining privacy and safety" and that the potential of FB is "growing everyday with new applications" (p. 8) that are yet to be explored and examined.

Social scientists have attempted to identify and recognize the use of FB by the younger generation (see Dong, 2008) to understand how this generation interacts online, communicate and identify itself as a member of an online community. From the language learning perspective, Mills (2009) study on the usability of FB as a valuable environment to experience and engage in learning the French language appears to be pertinent and timely. Mills (2009) discovers that her students – with the help of FB as an authentic environment for enhancing communication, interaction and discussions in French – are able to meet the grammatical, functional and linguistic objectives of her French language course. She had also highlighted that the use of FB was culturally relevant to her students. Her students also felt that the French class was more fun and applicable with the use of FB and this enhanced classroom discussions among the French language learners. According to Mills (2009), such

dynamic engagements between the learners in FB motivated her students to use accurate French.

A recent study by Roblyer et al. (2010) found that university students are very open to the possibility of using Facebook and similar technologies to support classroom work. Similarly, Haverback (2009) observed and informally examined her students' creation and participation in an online learning community on FB to discuss assignments, ask and answer questions, post information, and support one another for their Reading Education Methods course. She found that her students were motivated to be involved in discussions in FB and they grasped a better understanding of the theoretical principles in ensuring effective reading. Her students also developed better ideas as a group compared to when they read individually.

In terms of writing, FB has been a platform for students to write, but this writing is different from the writing done in school for academic purposes. Students regard the informal writing outside school (including FB, blogs and Twitter) as 'communication' and the school writing as 'writing', which is an exercise in test taking (Yancey, 2009). The students are unable to see the connection between the two forms of writing (inside and outside school) and, the students are unable to consider writing as an engaging activity to express themselves as well as a tool to perform in academic situations. Yancey (2009) discusses how FB and similar tools such as blogs and online forums can be used so students can see writing done in these new media as "writing" and they can make use of these media to become better writers. In the process help students become thoughtful and informed writers.

2.2. Theories of learning in the FB Environment

A number of studies that examine the use of multimedia tools or online applications for teaching and learning, particularly studies on reading comprehension and vocabulary learning, apply ideas from incidental learning to explain the nature of learning that happens in those studies, as well as clarify the reasons for such learning patterns and behaviours (see Chun, & Plass, 1996; Akbulut, 2007; Shahrokni, 2009). The aforementioned researchers have investigated incidental vocabulary learning using multimedia/hypermedia.

Incidental learning in education contributes to unintentional or unplanned learning that results from other activities, regardless of those activities are academic or non-academic (Kerka, 2000). Incidental learning is especially effective when using a computer (Pennington, 1989) and it usually happens in the process of completing tasks using computers (Cahoon, 1995) and/or in the online environment (McFerrin, 1999) through observation, repetition, social interaction, and problem solving (Rogers, 1997). Holzinger, Pichler, Almer, and Maurer (2001) imply that incidental learning, from the perspective of computing, technology and education, would then include concepts and notions that Ross-Gordon, and Dowling (1995) have promulgated earlier: "learning from mistakes, learning by doing, learning through networking, and learning from a series of interpersonal experiments" (p. 315). Similarly, Herrmann, Fox, and Boyd (2000) voice that the amalgamation of education and technology affects "either intentionally or unintentionally what happens: sometimes for better, sometimes for worse" (p. 39). These, in a nutshell, point to the fact that when computer technologies are used for educational purposes, teachers should be aware of the unintended learning outcomes that may have positive or negative impacts, or both, on students.

Northcote, and Kendle (2001) postulate that participating in online learning activities such as discussing in online forums and searching for information online may give students the opportunity to acquire many practical online skills in a more incidental, informal manner. Some of these skills that would be useful for language learners are critical analysis of resources, effective online communication, and filtering and deciphering information. In order to attain the above skills, Roth (2009) suggests that technology should be made a "significant component in the curriculum by drawing on Plato's goals for education and adapting and

realizing them" and "the teaching and learning should be interactive, personalized and holistic" that will aid students to "move away from the passive realm of reading and into the interactive world of digital pedagogy" (p. 127). In this respect, which is quite similar to incidental learning, Fox (2002) views networked learning from the socially situated learning theory and underlines how this type of learning theory "draws our attention away from all formal educational attempts to manage learning towards the many social spaces where learning takes place 'naturally,' so to speak" (p. 81). The above notions of incidental learning and socially situated learning inform us that learning does not necessarily mean learning in a formal setting, within a formal classroom and guided by an instructor; for instance, learning can also take place anywhere as long as there are meaningful interactions between learners that lead to knowledge construction. Clearly, incidental learning or socially situated learning theory does not have the capacity to explain all forms of learning, practices and experiences that occur in a FB community.

As suggested by Nagel, and Kotzé (2010), since learning in a community of practice sometimes can be incidental, we must also pay close attention to the notion of community building, social networking and inter-personal relationships as other forms or opportunities for learning, practices and experiences that may have transpired in a FB community. This would be in the form of constructivism, where constructing knowledge in a community of practice, learning together and from each other, working collaboratively, and in the process, build learning communities, is very much relevant to the structure and the way FB is utilized by users. For instance, joining *Groups* "in which users share similar interests," has "pedagogical potentials" that can be utilized "in language classes in varieties of constructive manners" (Blattner, & Fiori, 2009, p. 19–20). It is through this type of online community that FB users are able to sustain meaningful and dynamic educational experiences, exercise higher levels of thinking skills and construct knowledge (Garrison, & Kanuka, 2004), particularly in the language classroom. Harasim, Hiltz, Teles, and Turoff (1997) explain that through these construction of knowledge, meaningful educational experiences and utilization of thinking skills occur when members of online communities, such as FB, formulate "ideas into words that are shared with and built upon through the reaction and responses of others" (p. 4). In this respect, FB allows for such language activities, whereby the users can 'carry out meaningful interaction synchronously or asynchronously with speakers of different languages and also have access to an incredible amount of valuable and authentic information on a variety of topics' and this can,

facilitate the development of socio-pragmatic awareness and competence in second language learners through meaningful intervention, and can promote cross-cultural understanding.... present(s) L2 (second language) learners with opportunities for intercultural communication with authentic native speakers of comparable age....develop relationships with native speakers who share similar interests and who will interact on a regular basis in L2. (Blattner, & Fiori, 2009, p. 22)

The above cross-cultural and inter-cultural interaction and communication can be linked to Wenger (1998) social theory of learning, which requires active participation in social communities; and in this case, FB acts as a tool to foster and develop an online community. In such a community, learning involves meaning negotiation and finding, mutual engagement in action, community building and identity construction. From the perspective of language learning, According to Wenger (1998), 'practice' is about "meaning as an experience of everyday life", and that meaning is located in a process called 'negotiation of meaning' (p. 52). This negotiation certainly involves the use of language and seems to fit the use of language in FB, where genuine dialogues transpire through the "varied use of language within a number of different conversational contexts" (Allen, 2005, p. 253), especially via the functions such as Comments and Share. Wenger (1998) explicates that practice cannot and should not be disassociated from a community. He likens practice as the "source of coherence of a community", and "a property of community" (p. 72), whereby there ought to exist (1) mutual engagement of individuals in actions where meanings are negotiated; (2) negotiation of a joint enterprise that reflects mutual engagement, active participation and mutual accountability; and (3) a shared repertoire that includes routines, words, stories, gestures, genres, and actions, among others. In a FB community, these three elements are practiced by individuals to engage with others. For instance, in the shared repertoire, FB users share their daily routines and stories in their respective FB community, and these become the community's property that are further conversed on and dissected by others.

Research and anecdotal evidence has disclosed both positive and negative impacts from the use of FB for learning. The positive impacts encompass learner motivation and engagement (Mills, 2009; Northcote, & Kendle, 2001); strengthening of students' social networking practices (Madge, Meek, Wellens, & Hooley, 2009) and post-hoc critiquing of learning experiences and events (Selwyn, 2009). On the other hand, the negative impacts include wasting or overspending of time (Fodeman, & Monroe, 2009); and encouraging negative attitudes (such as lying) and affecting students' social growth detrimentally (Queirolo, 2009). Due to this mixed impact of FB, there is an ongoing debate among researchers and academics as to whether FB should be taken seriously as a learning tool or a learning environment, especially in higher institutions. Many educational institutions have embarked on the effort to reach out to students using social networking platforms such as FB (more as a marketing tool) and "spread the word about educational opportunities and programs, and promote achievements on campus" (Violino, 2009, p. 29).

3. Methods

3.1. Participants

This study was carried out in Universiti Sains Malaysia (USM), which is the leading research university in Malaysia. USM was selected as the APEX (Accelerated Programme for Excellence) University by the Malaysian Ministry of Higher Education (MOHE) in 2008, with the aim of nurturing a world-class Malaysian university that will be placed in the top 100 universities of the world. Most of the students in USM are in the science fields, enrolled in science courses such as medicine, pharmacy, science computer, engineering, biology, physics, chemistry and industrial technology.

A quantitative survey study exploring the students' general practices or uses of FB, and their views on FB as an online educational environment would be beneficial in identifying the fundamental issues that are of concern to the students using FB for English language learning. For this purpose, three hundred (300) undergraduate students in USM were randomly chosen to participate in the survey using convenience sampling where the students were selected based on researchers' convenience of access to students. Students who visited the university's main library were approached and given the questionnaire, which was immediately returned upon completion. This procedure was done for three consecutive days, and for each day a total of 100 completed questionnaires were collected.

3.2. Instrument and data analysis

The instrument used in this survey was a questionnaire that consisted of two sections. Section A solicited demographic information of the students and their language usage. The demographic information collected were gender and students' language ability. Section B comprised of items enquiring information on the students' practices of FB, and a construct (or an aspect that will be measured) on learning English in FB environment (16 items) (Appendix 1). This construct, which used a 5-level Likert scales of 'Strongly disagree' to 'Strongly agree', had a very high Cronbach alpha score of 0.977, and was developed by the authors based on previous studies that examined the practices and experiences of using computer-mediated-communication (CMC)

Table 1Length of time being a FB member.

	Months									Total
	1-3	4-6	7–9	10-12	13-15	16–18	19-24	25-30	36-40	
Frequency Percentage (%)	61 38.0	28 17.2	15 9.2	19 11.6	6 3.6	5 3.1	17 10.4	3 1.8	8 4.9	162 ^a 100

^a One student did not respond to this item.

and ICT tools for language learning and teaching (see Kabilan, 2004; Kabilan, & Mohamed Amin, 2006).

The items in the construct of learning English in FB environment were derived from Blattner, and Fiori (2009), which emphasized the aspects of students' improvement of language skills, and students' motivation, confidence and attitudes towards English language learning. These aspects were identified, discussed and propagated by Blattner, and Fiori (2009) as "powerful resources and learning opportunities that this social network (i.e., FB) has to offer when implemented in a pedagogically meaningful way" (p. 18). Finally, the items for the construct were then refined based on the authors' observations and experiences of being active users of FB. An open-ended item ('Did Facebook assist you in improving your English? If so, how?') was also included to describe and explain the quantitative data.

For the analysis of the demographic data, frequency and percentages were used; whereas for the description of items in the construct, mean scores, frequency and percentages were employed to describe the students' views on FB as a learning environment for learning English. As for the open-ended item, the students' views were categorized into emerging themes and analyzed using situation and activity coding strategies (Bogdan, & Biklen, 1992). The situation codes were assigned to units of data that described how the student defined and perceived the act of using FB for English language learning. The situation codes were used to identify the situations in which English language learning utilizing FB would be important and meaningful for the students. The activity codes were assigned to units of data that described the students' regularly occurring behavior, such as writing (for example posting messages) and reading (messages posted by friends) that occurred as a consequence of their activities in FB (Bogdan, & Biklen, 1992).

The qualitative data were used to support and give meaning to the quantitative data analysis, and for systematic analysis and presentation of each student's excerpts, each student was coded R1, R2, R3...R300, respectively. The comments from the respondents were cited as they were expressed or stated by the students and identified by their respective codes. Readers should note that the rich nature of the qualitative data means that some excerpts may indicate or contain more than one theme and, at times, the themes may be intertwined with one another in an excerpt.

4. Findings and discussions

The findings are presented in three sections. First, the demographic data are presented, which is then followed by the students' general practices and uses of FB. The third section discusses if FB can function as an online environment that facilitates English language learning based on the postulation by Blattner, and Fiori (2009) i.e., FB may have useful impacts on the aspects of (1) students' improvement of language skills and (2) students' motivation, confidence and attitudes towards English language learning. Four themes emerged from the qualitative data analysis: (1) Improvement of language skills; (2) Confidence; (3) Motivation and; (4) Attitude (see Appendix 2 for examples of excerpts that delineate situation code and activity code). These themes are discussed accordingly in sub-Section 4.3.

4.1. Demographic data

There are 81 male (27.0%) and 219 (73.0%) female students who participated in this study. These figures are almost representative of

the general university student population (in terms of gender) in USM, where 38.9% are males and 61.1% of the students are females (Corporate and Sustainable Development Division, 2010). In terms of English language ability, 74% of the participants have a fair to weak command of the language, which is reflected in their results in the Malaysian University English Test (MUET). In Malaysia, students intending to enter local universities have to take MUET, which tests the students' writing, speaking, listening and reading skills. The students' language ability based on MUET is represented in terms of Bands 1 to 6; with Band 6 as the highest level (very good command) and Band 1 as the lowest level (extremely limited user and has poor command of the English language). The majority of the students (62.6%) are modest users (have fair command of the language) or limited users (have limited command of the language) at Bands 2 and 3 respectively, whereas 29.4% are competent users or have satisfactory command of the English language at Bands 4, 5 and 6.

4.2. Students' general practices or uses of FB

From the 300 students who participated in the survey, 137 (45.7%) have a FB account while 163 (54.3%) do not have an account. Of the 137 students who have an account, 47 are males (28.8%) and 116 females (71.2%). The majority of the students (55.2%) who have a FB account state that they have joined FB in the last six months. Only 6.7% of the students say they have been with the FB community for more than two years. Data in Table 1 confirm that being part of the FB community is indeed gaining popularity with students at USM as more students are creating new accounts. This trend has been identified by many researchers and academics (see Oduor, 2010; Kolek, & Saunders, 2008; Bugeja, 2006).

In terms of language use, Bahasa Malaysia (the national language of Malaysia), English and a mix of English and Bahasa Malaysia are frequently used by the students to interact in FB (Table 2).

Students in this study are active users or members of FB, with 54 students (33%) who login their FB account at least once a day; 84 students (51.5%) login at least once a week and 25 students (15.3%) only login at least once a month. The details of the number of times that they login daily, weekly or monthly are presented in Table 3.

4.3. FB as an online environment that facilitates English language learning

As can be seen from the mean scores for all 16 items in Table 4, the general opinion of the students is that they agree FB can be an online learning environment to facilitate English language learning in terms of (1) students' improvement of language skills and, (2) students'

Table 2 Language used for FB interaction.

Language used	Scale							
	Never	Seldom	Sometimes	Frequent	Always	Mean		
	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	score		
Bahasa Malaysia only	17.8	7.4	25.9	33.1	25.8	3.43		
English only	6.1	15.3	35.1	23.9	19.6	3.37		
A mix of English and Bahasa Malaysia	11.0	4.9	36.3	36.8	11.0	3.33		

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Table 3 Frequency of logging in to FB account.

	Frequency (%)					
	1–3 times	4–6 times	7–9 times	10-12 times	More than 12 times	
Daily	44 (81.48)	6 (11.10)	0	3 (5.56)	1(1.86)	
Weekly	66 (78.56)	17 (13.10)	2 (2.40)	5 (5.94)	0	
Monthly	20 (80.0)	4 (16.0)	0	1 (4.0)	0	

motivation, confidence and attitudes towards English language learning. The students agree that the use of FB would enhance their communication skills (mean score = 3.82), assist them to practice writing in English (mean score = 3.82), make learning English more fun (mean score = 3.81) and enhance their confidence to write in English (mean score = 3.80). The students' positive views and opinions regarding FB as an environment to facilitate English language learning can be explained by the fact that online platforms, such as FB, provide authentic interaction and communication that the students might not have experienced before. Such positive experience could then lead to "increased confidence in language acquisition and a sense of connectedness" among the students (Wang, & Chen, 2007, p.6). The positive views of the students can also be explained by Lave, and Wenger (1991) notion of learning as a form of participation in a social world, and how people learn better in social settings and through authentic and relevant social interactions. Social online communities, such as FB, can be linked to this concept, whereby as a networked environment it allows and facilitates the necessary interactions that improve learning (Wenger, McDermott, & Snyder, 2002). As such, the students in this study are able to experience the improvement of their language and thus attest to the aptness of FB as an online environment that could facilitate English language learning.

4.3.1. Improvement of language skills

In Table 4, though the mean scores for all the items do not reach 4, the total percentage of students who agree and strongly agree exceeds 60% for all items. Hence, for a fluid data analysis and meaningful data interpretation that contribute to the following discussions of FB as an online learning environment, we present both the mean scores and percentages, supported by the qualitative data to provide a more balanced understanding of students' perceptions, practice and patterns of using FB for language learning.

The students in this study express that FB can be an online environment for practicing the usage of English where 71.6% of the students agree that FB could be used to practice writing (mean score = 3.81), while 71.6% agree that they can practice their reading skills (3.77) in English. As for enhancing the students' English communication

skills (mean score = 3.81), 77.8% of the students agree that FB could be an effective environment. Students are positive about the FB as an online learning environment because by participating in FB, they are able to use the language freely (Nadzrah, & Mickan, 2003) without worrying about making language mistakes (mean score = 3.55). The students demonstrate their ability to assimilate into the sociocultural practices of their respective FB communities, gain knowledge/skills from the native users of the English language and engage in authentic written dialogues and conversations with them (Lave, & Wenger, 1991). Via such interactions between the expert (native users of English) and novice (non-native users of English) a "neo-apprenticeship style learning, similar to that proposed by Vygotsky, can occur" (Gannon-Leary, & Fontainha, 2007, p. 3).

From the qualitative data gathered, it is found that discussing this issue of improving and practicing of language skills cannot be done in isolation without intersecting with the students' motivation, confidence and attitudes towards English language learning. Hence, the discussion of practice and improvement of language skills facilitated by students' participation in the FB community was scrutinized in relation to the significance and magnitude of their newfound confidence and motivation levels, and also their embracement of a more positive attitude towards learning English as a result of their participation in FB.

We recognize that the students' perceptions and views of their language improvement as a result of their participation in FB is not proof of their language improvement. It is, however, an acknowledgement by the students that FB has the tools and features that would offer them opportunities for language improvement.

4.3.2. Confidence

In terms of enhancing confidence, 69.2% of the students are of the opinion that FB could enhance their confidence to write in English (mean score = 3.79). In terms of reading English materials, 71.0% of the respondents believe that by participating in FB, their confidence in this aspect has improved (mean score = 3.76). As for the students' communication skills using English, 67.9% of the students surveyed admit their confidence level has increased (mean score = 3.76). Most of the students said that writing in FB "create confidence" (R116), "boost confidence" (R254), and "dare to communicate in English" (R32). The students elucidate that this increase in their confidence level is because they are,

- (1) able to practice using English in FB with the native users of English (R254)
- (2) able to express their feelings in English to their friends (R124),
- (3) able to use English for practical purposes that are not governed by linguistic rules (R112) and,
- (4) exposed to an English language learning environment, which is FB (R280).

Table 4Students' perception of FB as an online English language learning environment.

Question	Strongly disagree	Disagree	Slightly agree	Agree	Strongly agree	Mean scores
	(1)%	(2)%	(3)%	(4)%	(5)%	
Practice writing in English	2.5	5.6	13.6	63.6	13.6	3.81
Practice reading in English	1.9	5.6	19.8	58.0	13.6	3.77
Enhance students' English communication skills	2.5	3.7	14.8	66.7	11.1	3.81
Enhance students' confidence to write in English	2.5	3.1	24.1	52.5	16.7	3.79
Enhance students' confidence to read English materials	2.5	6.2	19.1	55.6	15.4	3.76
Enhance students' confidence to communicate using English	2.5	3.7	24.7	51.2	16.7	3.76
Enhance student's motivation to communicate using English	2.5	4.9	19.1	58.6	13.6	3.76
Enhance students' motivation to read English materials	3.1	6.2	17.3	58.0	14.2	3.75
Enhance students' motivation to write in English	2.5	7.4	21.6	56.2	11.1	3.66
Make learning English more interesting	2.5	4.9	17.9	56.8	16.7	3.81
Learning English	1.9	5.6	21.6	59.3	10.5	3.72
Learn new words in English	1.9	3.7	22.2	58.6	12.3	3.77
Inculcate a more positive attitude towards learning English as a second language	2.5	3.1	19.1	64.2	9.9	3.76
Inculcate a more positive attitude towards English as a language	3.1	3.1	23.5	58.6	10.5	3.71
Make learning English easier	3.1	3.1	26.5	55.6	10.5	3.68
Tolerate language mistakes	3.1	7.4	27.8	53.1	7.4	3.55

Since the students need to read and write in order to communicate with their friends in FB, their confidence levels may have increased simply because, they wrote and read more in FB (O'Hanion, 2007). This directly enhances their confidence to communicate using English as well. However, it needs to be stressed at this juncture that the students' initial aim to become members of the FB community is not to learn and improve their language and communication skills but to socialize. Their primary activities in FB include sharing daily and personal activities and news, sharing pictures, playing online games and searching for lost friends. The students in this study reported that they became part of the FB community because they wanted to keep in touch with friends and this had nothing to do with learning English. This is consistent with Lankard (1995), who stressed that in incidental learning, "the primary intent of the activity is to accomplish the task, not to learn" (p. 5).

While sharing views, exchanging messages and commenting in their FB, the students developed confidence in writing and reading English and communicating with other users of FB. Their newfound confidence level is basically a 'byproduct' of their online socialization. Such online socialization is enabled by computer-mediated communication (CMC) that benefits shy and introverted students, whereby they interact more with each other and rely less on their mother tongue (Chun, 1994; Warschauer, 1996). According to Wenger (1998), "when the meanings of learning are properly attended to, the mechanics take care of themselves" (p. 266). In other words, using Wenger (1998) understanding of learning, it can be implied that the students in this study are somewhat successful in learning language in the FB environment because they are focused on the experience of meaning making rather than on the mechanics of language learning. The above two reasons, in amalgamation, explain why students in this study stress that their confidence level in using the English language for communication purposes (via reading and writing) has increased.

4.3.3. Motivation

Over 72% of the students agreed that FB could an environment for enhancing students' motivation to communicate in English (3.76). Similarly, 72.2% students also assent that FB enhance their motivation to read in English (3.75). As for writing, 67.3% students concur that FB is able to motivate them to do so. The qualitative data explain the above quantitative data. According to R299, FB motivates her to read in English. Probably, this is because, as R268 points out, "Everything is in English. So, I am very motivated to use English, especially in terms of writing and reading skills". R24 also explains that "direct communication with friends on Facebook, who are excellent in English, could teach or motivate me to communicate in English". R24's admittance resonates with Haverback (2009, p.1) observation of her own students: "they were continuing a conversation they had participated in the night before. I was astounded that my students had been so motivated they had met outside of class". Haverback (2009) students took charge and directed their own learning, and quite similarly, students in the current study portrayed similar self-directed learning.

R24's excerpt is an insightful observation that enlightens us on the valuable learning experiences one can encounter in a community of practice. Blattner, and Fiori (2009) agree and emphasize on the magnitude and significance of promoting a community of learners to learn a language, for which they cite Gass, and Selinker (2008) notion of affective learning and students' motivation as a "strong predictor of success in language classes" (p. 21) to support their claim.

4.3.4. Attitude

With a mean score of 3.76, 74.1% of the students concur that their participation in FB has inculcated a more positive attitude towards learning English as second language. R130, for instance, admits that by communicating in FB, he has a more positive attitude towards learning English. He explains, "If this [FB] did not happen, I would not have learned English well and would not have used correct spelling and sentence structures" (R103). Also, through the various activities, quizzes

and online games that FB hosts, the students make a conscious effort to understand and learn the language. For instance, when answering the quizzes, R114 tries to "understand the question in order to find the answer", while R103 makes use of the quizzes in English to learn more of the language. Students R134 and R109 also make conscious attempts to "learn from the quizzes" and "read the quizzes", respectively. R132 claims that she has learned "a lot of new words from the quizzes".

Apart from quizzes, other facilities or activities are hosted by FB. R277 mentions that she not only learns from the quizzes but also from "following all the activities provided by Facebook". More specifically, R6, R134, R249 identify that they have learned from the online games that FB hosts or provides. R97 clarifies that such learning occurs in online games because "they are required to understand proper English in order to have fun in Facebook". Playing online games in FB (such as *Mafia Wars*, *Farmland* and *Galaticos Football*) requires the students to understand the instructions in English as well as interact in English with fellow gamers and the game itself.

Another example of positive attitude towards learning English is demonstrated by R19: "When my friends give comments on my profile using words that I don't know their meanings, I automatically refer to a dictionary". R16 displays a positive attitude towards learning, and that learning requires effort, which in her case is looking up the meaning of the words. Learning new vocabulary is mentioned by many students in this study. Almost 71% of the students in this study agree that they have learned new words (mean score = 3.76), concurring with many of the previous studies' findings on vocabulary learning in an ICT-based incidental learning environment (see Chun, & Plass, 1996; Akbulut, 2007; Shahrokni, 2009). Many of the students also reiterated in the open-ended items the benefits of participating in FB in terms of learning vocabulary:

- (1) Discovering new words (R34, R119, 287)
- (2) Learning of new words (R4, R56, R140) through friends in FB
- (3) Looking up meanings of the new words found or learned in FB (R19, R33, R48)
- (4) Using the new words learned from FB (R94, R183, R224)

These four benefits entail a complete cycle of learning a new word, in which the students acquire a word and use it within the right context (i.e., according to the meaning of the word) that leads to knowing a new word and its meaning(s), as well as reinforcing the students' overall learning. Students want to know the meaning of the words because something was said about them in FB. Thus, they take the initiative to find out the meaning of the words. By doing so, they would be able to respond accordingly.

Apart from vocabulary, the students in this study also claim to have benefitted in terms of writing skills. R224 elucidates that she writes to communicate "with other people across the world" and she writes her opinions in response to others' questions and comments. R286 asserts that when she writes in her FB, particularly in her profile, she is very confident with her writing. R86 reverberates with R286 and affirms that previously her English was 'broken,' but mingling in the FB environment has facilitated her to "speak, read and write better in English". R34 expresses that she has discovered 'new sentence/writing structures' that will be useful in her writing. As writing in FB is more of sharing of feelings and ideas and commenting on each others' comments, the students in this study take the opportunity to practice their writing skills.

When posting a comment or replying to a comment, R96 tries to maximize and practice her English language, while R11 practices writing by expressing her "daily emotions to attract people to comment on my status". On the contrary, R115 practices her writing by giving comments to others in her FB. Why are these students willing to write even though their language may not be perfect? Kitsis (2008, p. 31) believes it is not important for the students as they "can't fix each others' work" and that correcting surface errors may be "counterproductive". Perhaps, what all the students in the current study want is an audience to read their work and share their thoughts and feelings — "an audience of their peers is the most meaningful forum out there" (Kitsis, 2008,

p. 31). In other words, the students needed a community they could relate to each other and be identified as a member of the community, whereby "members can engage with one another and thus acknowledge each other as participants" (Wenger, 1998, p. 149). Blattner, and Fiori (2009) regard the need for an audience as a "sense of belonging", which the FB can easily and effectively enhance, while simultaneously "offer constructive educational experiences while maintaining privacy and safety" (p. 25). Kitsis (2008) also suggests that perhaps too much weight has been placed on serious academic writing in classroom contexts, and less attention has been given to casual writing that involves informal probing and testing of ideas (like in FB), "where much of the best thinking occurs" (p. 31). As such, the students feel at ease (less pressurised) writing in the FB environment, where they are able to identify oneself a lot easier in terms of being a member of FB compared to being a member of a community in classroom situations.

In terms of other skills – reading and communicating skills – not many students highlighted what they have gained. Most state of how FB has contributed to their overall communication skills. For example, R70 points out how FB has guided him to interact with his friends; R252 uses English everyday as a result of communicating with friends in FB; and R250 searches for friends from other countries just to communicate with. In terms of reading, R297 conveys that he reads all the information that his friends on FB share within the community, while R7 and R89 claim that as a result of FB, they now like to read and this has improved their reading skills. R268 and R299 feel that they are now more motivated to read in English. The above findings expound and substantiate Blattner, and Fiori (2009) claim that FB is a "powerful learning tool that is not only built of synchronous and asynchronous technologies that has transformed learning but has also extended the reach of those communicative tools" (p. 19).

4.4. Negative findings

Only 8.1% of the students disagree that FB can be an effective online environment to facilitate their practice of writing in English. In terms of practicing their reading in English, 7.5% of the students stress that FB is not a suitable environment. Perhaps, these students share R57's strong, rigid and 'traditional' view that FB cannot be an environment to learn English. According to her, "to grasp and enhance the English language ... it must be through academic reading of books, articles, journals, newspapers or websites with academic values only". As for enhancing their communication skills, only 6.2% students believe that FB cannot assist them. Table 4 shows similar trends for all items except for item 'tolerate language mistakes' — only less than 10% of the students disagree that FB can be an effective online environment to facilitate English language learning. Quite similarly, for the item 'tolerate language mistakes;' only 10.5% students disagree.

A majority of the students express in the open-ended item that FB has contributed positively to their confidence, motivation and attitudes of learning English and to their improvement and practice of their language skills. However, eight students differed and reasoned that FB is not an appropriate online environment to learn the English language. R20 is concerned with the abuse and misuse of both English and Bahasa Malaysia in the FB environment, but she agrees that there may be other forms of benefits that FB can contribute to the students' learning experiences. In this respect, R29 has the same opinion as R20 and further clarifies that "Facebook does not help in enhancing one's English language skills because it is only a field to share information or stories with friends". R82 laments that FB has not facilitated her learning of the language, as she is still capable of only using "broken English" though she has been using FB for quite some time. R63 and R99 are unsure of FB's potentials as an online learning environment for English.

5. Conclusion and implications

As postulated by Lankard (1995), incidental learning encourages students to discover learning that is facilitated by their participation

in FB. In incidental learning, students must give less attention to the their target activities in FB i.e. socialization, and give more attention to the learning aspects. Only then, what was learned and experienced by the students can be internalized and be meaningful to them, as far as learning English is concerned. In terms of the use of FB to facilitate language learning, it is important to ensure that awareness of opportunities and the value of such learning should be underlined and be brought to the students' attention. By doing so, according to Mealman (1993), students would be able to (1) increase their competencies, (2) increase their self-knowledge, (3) value lifelong learning, (4) improve their life skills and, (5) develop selfconfidence. To achieve these benefits, teachers need to plan learning projects that use FB both as a socialization and a learning platform that outline and inform students of (1) the objectives of the project, (2) the intended learning outcomes, (3) how to identify the learning outcomes, and (4) what to do when learning occurs, especially the concept of focusing less on FB and giving more attention to the learning aspects. The negative findings, as indicated by R63 and R99 indicate that in using FB as an online environment to learn English, there needs to be some form of structure and pre-determined learning outcomes so that students can focus on and be very clear about goals of language and/or learning. This would also help them make meaningful connections of what was learned and experienced in FB with the learning outcomes that have been determined. Taking into account R57's views, perhaps, apart from using FB as a socialization platform, it should also be an avenue for a 'formal' academic discourse, whereby explicit assignments and tasks related to learning English could be integrated.

Students in this study do not indicate that they joined specified *Groups* that enabled them to share ideas, views and topics, and engaged in online discussions that are related to English language learning. Nevertheless, by holding casual discussions or engaging in social chats with their FB friends, the students in this study are able to learn new words, build confidence, increase their motivation and positive attitude towards learning English. In addition to the *Groups* application, FB offers various applications that allow various types of interaction between its users. For example, *Courses* is an application that instructors and students can use to create links to course at universities, creating the opportunity for collaboration and exchange of knowledge. These two applications are among the numerous applications available in FB that potential to facilitate language learning.

From the perspective of incidental learning, this study has proven that learning of English in FB is feasible. This is because the technologies that support FB and features that characterize FB are able to engage students in meaningful language-based activities, even though their initial intention of joining FB is to socialize. If planned appropriately as part of an educational project, the same technologies and features of FB would be able to facilitate and produce effectual and meaningful learning of English within an online community of English language learners.

Hence, future research on FB should examine learners' interaction and engagement with others in various pre-planned and pre-determined language learning tasks with specific objectives within the community of FB. Their language improvement must also be measurable using valid instruments. Also, various features and applications (such as *Groups, Courses, Mafia Wars* etc.) of FB should be utilized in the research to discern their meaningfulness to the learners.

Based on the data and views expressed by the students in this study, FB could be utilized as an online environment to facilitate the learning of English. According to Prensky (1998) "We must get our teachers – hard as it may be in some cases – to stop lecturing, and start allowing students to learn by themselves" (p. 3). Perhaps, with FB, the students will explore and become managers of their learning of English with the help of other members of FB, and their teachers.

Appendix 1

Items for aspects of learning English in Facebook.

Question	Strongly Disagree	Disagree	Slightly Agree	Agree	Strongly Agree
	1	2	3	4	5
Practice writing in English					
Practice reading in English					
Enhance students' English communication skills					
Enhance students' confidence to write in English					
Enhance students' confidence to read English materials					
Enhance students' confidence to communicate using English					
Enhance student's motivation to communicate using English					
Enhance students' motivation to read English materials					
Enhance students' motivation to write in English					
Make learning English more interesting					
Learning English					
Learn new words in English					
Inculcate a more positive attitude towards learning English as a second language					
Inculcate a more positive attitude towards English as a language					
Make learning English easier					
Tolerate language mistakes					

Appendix 2

Sample schema to code, arrange and organize data according to situation code and activity code.

Example excerpts (student)	Analyses (Note/comment)	Themes
When friends comment on my profile using words that I don't know of their meaning, I will immediately refer to a dictionary to find out the meaning of the word (R19) [Activity Code] Through new discoveries of vocabulary (new words), helps us in writing in the profile. And such writing helps in enhancing our confidence in using English. (R 286) [Situation Code]	Students want to know the meaning of the words because something was said about them in FB. Thus, they take the initiative to find out the meaning of the words. By doing so, they would be able to respond accordingly.	Improvement of language skills: FB as an online environment to practice writing, reading, vocabulary, and communicating skills
FB greatly helps in enhancing self-belief and confidence to use English, especially if the contents of the FB are not translated into Malay. (R84) [Situation code] creates confidence when chatting with my foreign friends (R116) [Activity code]	The opportunity to communicate in English in a non-formal context builds students' confidence level	Confidence increases
everything is in English so i am very motivated to use English, especially in terms of writing and reading skill (S268) [Situation code]we are required to understand proper English in order to have fun in Facebook. (R97) [Situation code]	In order to experience fun and socialize in the FB community, students need to be quite well-versed in terms of the language, especially in writing and reading.	Motivation to learn and use the English language
If this (FB) did not happen, I would not have learned English well and would not have used correct spelling and sentence structures (R103) [Situation Code]understand the question in order to find the answer (R114) [Activity Code].	The students take a conscious effort to understand and learn the language through the various tools and features that are provided in FB.	Attitude: Positive towards the learning of English.

References

- Akbulut, Y. (2007). Effects of multimedia annotations on incidental vocabulary learning and reading comprehension of advanced learners of English as a foreign language. *Instructional Science*, 35(6), 499-517.
- Allen, K. (2005). Online learning: Constructivism and conversation as an approach to learning. *Innovations in Education and Teaching International*, 42(3), 247–256.
- Blattner, G., & Fiori, M. (2009). Facebook in the language classroom: Promises and possibilities. *Instructional Technology and Distance Learning (ITDL)*, 6(1), 17–28.
- Bloch, J. (2008). From the special issue editor. Language Learning & Technology, 12(2), 2–6
- Bogdan, R., & Biklen, S. (1992). *Qualitative research for education.* Boston: Allyn & Bacon. Bugeja, M. J. (2006). Facing the facebook. *The Chronicle of Higher Education, January*, 27,
- Cahoon, B. (1995). Computer skill learning in the workplace: A comparative case study. Unpublished Ph.D. Dissertation, University of Georgia, United States.
- Chun, D. (1994). Using computer networking to facilitate the acquisition of interactive competence. *System*, 22(1), 17–31.
- Chun, D. M., & Plass, J. L. (1996). Effects of multimedia annotations on vocabulary acquisition. *The Modern Language Journal*, 80(2), 183–198.

- Corporate and Sustainable Development Division (2010). Administration data. Universiti Sains Malaysia.
- Dong, Q. (2008). Explaining why young adults use MySpace and Facebook through uses & gratification theory. Paper presented at the Annual Meeting of the NCA 94th Annual Convention, Nov 20, TBA, San Diego, California.
- Fodeman, D., & Monroe, M. (2009). The impact of Facebook on our students. *Teacher Librarian*, 36(5), 36–40.
- Fox, S. (2002). Studying networked learning: Some implications from socially situated learning theory and Actor network theory. In Christine Steeples, & Chris Jones (Eds.), Networked learning: Perspectives and issues (pp. 77-92). London: Springer.
- Gannon-Leary, P., & Fontainha, E. (2007). Communities of practice and virtual learning communities: Benefits, barriers and success factors. *eLearning Papers*, 5, 1–14.
- Garrison, R., & Kanuka, H. (2004). Blended learning: Uncovering transformative potential in higher education. *Internet and Higher Education*, 7(2), 95–105.
- Gass, S., & Selinker, L. (2008). Second language acquisition. New Jersey: Lawrence Erlbaum Associates.
- Godwin-Jones, R. (2008). Mobile computing technologies: Lighter, faster, smarter. Language Learning & Technology, 12(3), 3–9.
- Harasim, L., Hiltz, S., Teles, L., & Turoff, M. (1997). *Learning networks*. Cambridge: The MIT Press.

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- Haverback, H. (2009). Facebook: Uncharted territory in a reading education classroom.

 Reading Today. October/November. 1.
- Herrmann, A., Fox, R., & Boyd, A. (2000). Unintended effects in using learning technologies. *New Directions for Adult and Continuing Education*, 88, 39–48.
- Holzinger, A., Pichler, A., Almer, W., & Maurer, H. (2001). TRIANGLE: A multi-media test-bed for examining incidental learning, motivation and the Tamagotchieffect within a game-show like computer based learning module. Proceedings of: Educational multimedia, hypermedia and telecommunication 2001, Tampere, Finland
- Kabilan, M.K. (2004). Malaysian English language teachers' practices and experiences of online professional development. Unpublished Ph.D. Thesis, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia.
- Kabilan, M. K. (2007). English language teachers reflecting on reflections: A Malaysian experience. TESOL Quarterly, 41(4), 681-705.
- Kabilan, M. K., & Mohamed Amin, E. (2006). English language teachers' professional uses of e-mail. Teacher Development, 10(1), 87–103.
- Kerka, S. (2000). Incidental learning. Trends and Issues, 18. Ohio State University: Center on Education and Training for Employment.
- Kitsis, S. (2008). The Facebook generation: Homework as social networking. *English Journal*, 98(2), 30–36.
- Kolek, E., & Saunders, D. (2008). Online disclosure: An empirical examination of undergraduate Facebook profiles. *Journal of Student Affairs Research and Practice*, 45(1), 1–25.
- Lankard, B. (1995). New ways of learning in the workplace. *ERIC Digest 161: ED 385778*. Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lempe, C., Ellison, N., & Steinfield, C. (2006). A face(book) in the crowd: Social searching vs. social browsing. Proceedings of the 20th Anniversary Conference on Computer Supported Cooperative Work, Banff, Alberta, Canada.
- Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). Facebook, social integration and informal learning at university: "It is more for socializing and talking to friends about work than for actually doing work". *Learning, Media & Technology*, 34(2), 141–155.
- McFerrin, K. (1999). Incidental learning in a higher education asynchronous online distance education course. SITE 99: Society for Information Technology & Teacher Education International Conference Proceedings. Charlottesville, VA: Association for the Adputing in Education.
- Mealman, C. (1993). Incidental learning by adults in a nontraditional degree program: A case study. In Proceedings of the Twelfth annual Midwest research-to-practice conference. The Ohio State University: College of Education.
- Mills, N. A. (2009). Facebook and the use of social networking tools to enhance language learner motivation and engagement. Paper presented at the Northeast Association for Language Learning Technology (NEALLT) Conference, Yale University, New Haven, CT, 30–31 October.

- Nadzrah, A. B., & Mickan, P. (2003). Students' experiences in computer-based English language classroom. *Proceedings of the 2003 ASIA CALL Conference*. Gyeongju University. South Korea: ASIACALL.
- Nagel, L., & Kotzé, T. (2010). Supersizing e-learning: What a Col survey reveals about teaching presence in a large online class. *The Internet and Higher Education*, 13(1–2), 45–51.
- Northcote, M., & Kendle, A. (2001). Informal online networks for learning: Making use of incidental learning through recreation. *Paper presented at the International Education Research Conference, December 2–6, Fremantle, Australia.*
- O'Hanion, C. (2007). If you cant beat 'em, join 'em. T.H.E. Journal, 34(8), 39-44.
- Oduor, P. (2010). Kenya: How students use technology. KenyaCurrent, February 10, 2010. http://www.ictcradle.com/kenyacurrent/?p=836.
- Pennington, M. (1989). *Teaching languages with computers: The state of the art.* La Jolla, CA: Athelstan.
- Prensky, M. (1998). The role of technology in teaching and the classroom. *Educational Technology*, *November–December*, 1998, 1–3.
- Queirolo, J. (2009). Is Facebook as good as face-to-face? *Learning & Leading with Technology*, 37(4), 8–9.
- Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in Higher Education: A Comparison of College Faculty and Student Uses and Perceptions of Social Networking Sites. *The Internet and Higher Education*, 13(3), 134–140.
- Rogers, A. (1997). Learning: Can we change the discourse? *Adults Learning*, 8(5), 116–117.
- Ross-Gordon, J., & Dowling, W. (1995). Adult learning in the context of African-American women's voluntary organizations. *International Journal of Lifelong Education*, 14(4), 306–319.
- Roth, A. (2009). Following Plato's advice: Pedagogy and technology for the Facebook generation. *Journal of Philosophy and History of Education*, 59, 125—128.
- Selwyn, N. (2009). Faceworking: Exploring students' education-related use of Facebook. *Learning, Media & Technology*, 34(2), 157–174.
- Shahrokni, S. (2009). Second language incidental vocabulary learning: The effect of online textual, pictorial, and textual pictorial glosses. *TESL-EJ*, 13(3), 1–17.
- Violino, B. (2009). The buzz on campus. *Community College Journal*, 79(6), 29–30.
- Wang, Y., & Chen, N. (2007). Online synchronous language learning: SLMS over the Internet. *Innovate*, 3(3), 1–7 www.innovateonline.com.
- Warschauer, M. (1996). Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal*, 13(2), 7–26.
- Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. Cambridge, UK: Cambridge University Press.
- Wenger, E., McDermott, R., & Snyder, W. M. (2002). Cultivating communities of practice: A guide to managing knowledge. Boston, MA: Harvard Business School Press.
- Yancey, K. (2009). Writing by any other name. *Principal Leadership*, 10(1), 26–29.