

THE EFFECTS OF BLOGGING AND MICROBLOGGING ON THAI UNDERGRADUATE
LEARNERS' ENGLISH WRITING PROCESS AND WRITING ANXIETY

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อรอุมา ละการชั่ว : ผลของการใช้บล็อกและไมโครบล็อกที่มีต่อกระบวนการเขียนภาษาอังกฤษและความกังวลการเขียนของนิสิตไทย (THE EFFECTS OF BLOGGING AND MICROBLOGGING ON THAI UNDERGRADUATE LEARNERS' ENGLISH WRITING PROCESS AND WRITING ANXIETY) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: รศ. ดร.ปัญญาลี วาสนสมสิทธิ์, 317 หน้า.

วัตถุประสงค์งานวิจัยนี้คือศึกษาผลของการใช้บล็อกและไมโครบล็อกที่มีต่อกระบวนการเขียนภาษาอังกฤษและความกังวลในการเขียนของนิสิตไทย กลุ่มตัวอย่างคือกลุ่มนิสิตไทยที่มีอยู่แล้วตามสภาพธรรมชาติสองกลุ่ม นิสิตกลุ่มแรก (24 คน) ต้องใช้บล็อกและนิสิตกลุ่มหลัง (30 คน) ต้องใช้ไมโครบล็อก ในการเขียนงานภาษาอังกฤษจำนวน 7 ชิ้น เก็บข้อมูลเชิงคุณภาพและข้อมูลเชิงปริมาณเกี่ยวกับกระบวนการเขียนภาษาอังกฤษและความกังวลการเขียนของนิสิตจากบล็อก ไมโครบล็อก เอกสารที่เกี่ยวข้อง แบบสอบถาม การสัมภาษณ์กึ่งโครงสร้างย้อนหลัง และ แบบประเมิน Second Language Writing Anxiety Inventory (SLWAI) ที่พัฒนาโดย Cheng (2004) ผลวิจัยแสดงให้เห็นว่าเทคโนโลยีทั้งสองประเภทมีผลต่อกระบวนการเขียนคล้ายกัน ก่อนใช้เทคโนโลยี ทั้งสองกลุ่มตัวอย่างมีวิธีการทำงานเขียนคล้ายกัน คือเขียนร่างโดยใช้ภาษาไทยและภาษาอังกฤษพร้อมกัน อีกทั้งวิธีการทำงานของทั้งสองกลุ่มขาดการทำงานซ้ำและขาดการตรวจทานจากผู้อื่น ภายหลังจากใช้เทคโนโลยี 10 สัปดาห์ การใช้ภาษาไทยในกระบวนการเขียนของสองกลุ่มตัวอย่างดูเหมือนจะลดลงและมีการตระหนักถึงการเขียนเป็นกระบวนการเพิ่มขึ้น นอกจากนี้เทคโนโลยีช่วยให้กลุ่มตัวอย่างเข้าดูงานเขียนของเพื่อนร่วมห้องและรับคำแนะนำเกี่ยวกับงานเขียนของตนเอง ซึ่งคำแนะนำบางข้อดูเหมือนจะมีความสัมพันธ์กับการแก้ไขงานเขียน อย่างไรก็ตามการใช้บล็อกและไมโครบล็อก ดูเหมือนจะไม่มีผลต่อความกังวลการเขียนของกลุ่มตัวอย่าง ความกังวลการเขียนของกลุ่มตัวอย่างที่วัดด้วย SLWAI อยู่ในระดับปานกลางตอนเริ่มงานวิจัย และระดับความกังวลนี้ไม่มีการเปลี่ยนแปลงหลังจากการบังคับใช้เทคโนโลยี ท้ายที่สุด ผู้เรียนมีความแตกต่างในเรื่องวิธีการรับส่งคำแนะนำ ช่วงเวลาของการแก้ไข และการเลิกใช้เทคโนโลยีของนิสิตบางคนในกลุ่มที่ใช้ไมโครบล็อก

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This study aimed to investigate how blogging and microblogging affected Thai undergraduate learners' writing process and writing anxiety. Two intact groups were required to use either blogging ($n = 24$) or microblogging ($n = 30$) to complete seven writing assignments. Quantitative and qualitative data were collected on their writing process and writing anxiety via blogs/microblogs, related documents, a questionnaire, retrospective semi-structured interviews, and the Second Language Writing Anxiety Inventory developed by Cheng (2004). The study findings revealed that both technologies appeared to have similar effects on participants' writing process. Before technology use, both groups' primary assignment strategy was to generate drafts simultaneously using Thai and English. Their completion of writing assignments also lacked recursion and external input. After ten weeks of technology use, there seemed to be less Thai in the participants' writing process and a greater awareness of writing as a recursive process. Additionally, the technologies permitted participants to view their peers' writing and to receive feedback on their own writing. Some of this feedback seemed to correspond to textual alterations. However, the use of blogs/microblogs did not appear to have any effect on the participants' writing anxiety. The average writing anxiety they had at the study's start, as measured by the SLWAI, was maintained to the end of the mandatory technology use period. Finally, where the groups differed was in how they requested and gave feedback, the timing of textual revision, and the seeming abandonment of technology use by some members of the microblogging group.

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Chapter 1

INTRODUCTION

1.1. Background of the study

Modern literate societies place a premium on the skill of writing. To be active participants within communities where print media is widespread, the ability to appropriately express one's thoughts and opinions via writing is highly necessary (Connor, 2003; Grabe and Kaplan, 1996). Most people engage in numerous types of writing on a daily basis, such as writing lists, filling out forms, or keeping diaries, but where knowledge of writing is particularly needed is in the academic realm, and later on, occupational settings. Students of various disciplines are expected to possess the ability to compose prose that is suitable for academia (Goodfellow, Morgan, Lea and Pettit, 2004; Grabe and Kaplan, 1996). Students of the pharmacy profession, for instance, must prepare various types of written documents, including drug formularies, journal article critiques, and pharmaceutical care plans (Diaz-Gilbert, 2005). The ability to write in an academically appropriate manner has a critical role in modern education, with written examinations often serving a gate-keeping role to higher educational prospects (Kelley, 2008; Leki, Cumming and Silva, 2008). Implicit in the production of written texts for academia is the idea that the writer has sufficient knowledge to compose such products. Thus, writing proceeds from the acquisition and mental manipulation of knowledge, and is also a means through which this knowledge may be demonstrated (Kruse, 2003). As such, writing serves a number of functions: the prose one composes not only relays information and is a way to improve one's critical thinking abilities, but may also form the basis for assessment.

The quality of one's writing is strongly linked to how capable one is perceived to be in both educational and occupational contexts (Weigle, 2002). Being able to write in English, in particular, is highly essential for those who wish to be active members of modern society, due in part to the fact that English is the major unofficial language of academia (Atay and Kurt, 2006; Leki, Cumming and Silva, 2008). As a result, in order to gain acceptance in certain fields, such as through publishing scholarly work, one must be able to utilize English (Belcher, 2012). The importance of English is also due to the twin catalysts of globalization and the Internet revolution, which have made knowledge of this language vital if one wishes to take advantage of a broader range of life opportunities and achieve "full participation in the world community, particularly within interconnected economic, technological, and geopolitical realities" (Kroll, 2003: 1). The capacity to produce scholarly and occupation-relevant works in this language is, thus, one of the skills present-day learners need to master if they wish to join the greater international community of their chosen disciplines. Consequently, academic acceptability, as well as access to greater academic and work-related opportunities, are in large part determined by how well one can write in English (Kelley, 2008; Kroll, 1990; Rubin, Katznelson and Perpignan, 2005).

However, though writing is a skill that is seen as highly important by both instructors and students, there is also agreement that it is one of the most problematic to master (Huang, 2010). Achieving a satisfactory level of writing ability may be a challenging endeavor because it is a complex skill, requiring the interplay of expressive, receptive, and reflective skills (Deane, 2011). To become capable writers, students are required to both understand, and forge roles for themselves, in

particular discourse communities (Green, 2007). Furthermore, writing does not occur in a clear-cut, linear manner; rather, good writing is recursive (Stapleton, 2010). Throughout the composition of a written text, writers continually make decisions regarding the best strategies to utilize at different stages of their writing, such as when they initially plan a text (Gustilo, 2013). Developing strong writing skills is not about immediately creating a single, perfect text. Writing instruction—both in first language and second and foreign language (L2) education—acknowledged this fact when the focus of instruction shifted from the products of writing to the process associated with this skill (Matsuda, 2003). Having students understand that writing is a process is important, and it is also believed that having them go through a series of steps that ultimately lead to the production of a piece of writing helps makes them become more aware of the subtleties and nuances of this activity (Susser, 1994). During these steps, seeking feedback from others, such as peers, is an essential activity, as others' insights can be used to improve one's writing (Hyland, 2003). In this way, writing becomes an act of learning and discovery in itself, instead of merely the one-off imitation of pre-approved discourse modes (Flower and Hayes, 1981; Matsuda, 2003).

For learners of English as a foreign language (EFL), aside from the inherent complexities of the writing skill, another significant stumbling block to achieving writing expertise is the necessity of having to learn to manipulate a system of writing that may be considerably different from the one they are already comfortable with (Weigle, 2002). Subsequently, this requirement to move beyond their comfort zone has led many learners to rank mastering writing in a second or foreign language as one that provokes a high level of anxiety. Research has discovered that such

negative feelings have an adverse effect on both the writing process and the final written product, and discourage writers from pursuing academic and professional interests that require writing (Daly and Miller, 1975; Masny and Foxall, 1992). All four Taiwanese graduate students in Johanson's (2001) study, for example, deemed academic writing an activity that aroused anxiety, and other studies have found measurable levels of anxiety when students are asked to engage in L2 writing (Cheng, Horwitz and Schallert, 1999; Mat Daud, Mat Daud and Abu Kassim, 2005). Second and foreign language writing anxiety (also known as writing apprehension) has been found to be a condition appreciably different from anxiety experienced while writing in one's native language, in that it appears specifically in response to being engaged in L2 writing (Cheng, 2002). It is theorized that students' distress results from the inherent nature of writing, as it is a product-oriented activity usually undertaken by an individual devoid of external help (Atay and Kurt, 2006). Foreign language writers may face additional fear due to discomfort or unfamiliarity with the target language (Phinney, 1991). Other posited causes include a lack of writing practice (Schweiker-Marra and Marra, 2000), worries over linguistic mistakes (Kelley, 2008), and concern about receiving criticism (Abdel Latif, 2007).

Regardless of L2 writing anxiety's cause, it may be concluded that writing anxiety poses a serious problem for EFL writers. Research has shown it correlates negatively with a number of aspects of writing. When Cheng, Horwitz, and Schallert (1999) administered a measure of L2 writing anxiety to a sample of 433 Taiwanese university students, they discovered a small, though significant, negative correlation with English (i.e. the students' L2) writing achievement. Atay and Kurt (2006) found that in a sample of 85 prospective teachers, those with high writing anxiety reported

difficulties with the process of writing in their L2 of English, specifically the ability to formulate and organize ideas when writing. Studies have also uncovered negative relationships between L2 writing anxiety and writing quality (Cheng, Horwitz and Schallert, 1999) and syntactic complexity (Atay and Kurt, 2006). Beyond these negative relationships with the actual written product, writing anxiety also appears to adversely affect individuals' willingness to write or even to pursue advanced writing classes (Daly and Miller, 1975), behaviors that may seriously hinder their academic and occupational opportunities.

With writing in English so essential, the question that arises, therefore, is how can EFL student writers' English writing process be improved and their writing anxiety alleviated? In seeking to answer this question, the role of technology cannot be ignored. Technology, in the form of computers and the Internet, are already an indelible part of many EFL student writers' lives. For example, it was discovered that approximately 18 million Thais were social media users as of May 2013 (Millward, 2013). It may be safe to presume that a portion of that number is Thai EFL learners, and therefore, it may be said that the Thai EFL learner, and in general, the modern EFL student writer, is what Prensky (2001) has dubbed a *digital native*. This term refers to a member of the first generation to be raised in an environment where digital technology is ubiquitous. Growing up in this technology-rich atmosphere is thought to have deeply impacted every aspect of this cohort of people's lives, from how they interact with others and the environment, to how they learn (Halse and Mallinson, 2009). Prensky (2001) puts forth the claim that today's learners are vastly different from their predecessors, to the point where the pre-existing educational system is no longer able to cater to them. Thorne and Payne (2005: 380) concur,

adding, however, that this reality “represents a set of opportunities and challenges for language teachers.” These digital-age foreign language learners need to be taught using methods that address these differences, incorporating the technology that they are familiar with. This requirement on the learners’ part opens the door to the integration of technological options into the teaching and learning of such skills as English writing. Fortunately, it appears that technology has a generally positive impact on language learning in general, and L2 writing in particular.

Various technologies have been investigated in terms of their impact on L2 writing. In one study reported on by Bitter and Legacy (2008), it was found that when students were allowed to write with word processing programs, their texts were longer and more fluent; another additional impact was more positive attitudes towards writing. There has been research that has found that engaging undergraduate students in Taiwan and the United States in email exchanges led to greater fluency and stronger organization in their writing (Singhal, 1997). Warschauer (1997), in an overview of studies that looked at students of German who used electronic discussion, concluded that due to their involvement with the technology, they showed use of more complex sentences, vocabulary items, and syntax. Research that was reported on by Kern (1995) noticed a similar increase in the occurrence of complex sentences in students’ writing after they utilized a synchronous network application named InterChange. These examples lend support to the claim that technology positively affects L2 writing.

The beneficial nature of technologies appears to also extend to writing anxiety. Second or foreign language writers seem to gain more from the use of a computer during their writing process than their native English writer counterparts

(Phinney, 1991). Even the simple act of using a word processor appears to help lower learners' writing anxiety (Rodrigues, 1985). Computer-mediated communication also seems to reduce writers' anxiety (Hertz-Lazarowitz and Bar-Natan, 2002). Skinner and Austin (1999), in implementing computer conferencing in their study, felt it encouraged the participants to prevail over their writing anxiety. These findings would seem to indicate that incorporating technology into the teaching and learning of L2 writing may be beneficial.

With the rise of Web 2.0 technologies—Internet technologies that allow users greater ownership of the online space (O'Reilly, 2005)—EFL educators are increasingly being given more and varied technological options that may be fine-tuned for use with their students. Though Web 2.0 technologies were not developed for educational purposes, Selwyn (2007) argues that since they constitute a significant part of the digital environment that present-day learners inhabit, they merit attention from educators. Furthermore, Ullrich, Borau, Luo, Tan, Shen and Shen (2008) contend that the very nature of Web 2.0 technologies are congruent with the principles underlying language learning. However, though all of these technologies support greater participation and customization of the online space, it is important to take into consideration how particular technologies can help achieve desired learning outcomes. In seeking ways to aid EFL learners' progress through the writing process and to help decrease their writing anxiety, the Web 2.0 technologies of blogging and microblogging would appear worthy of additional investigation.

Blogging is cited as the quintessential example of Web 2.0, existing even before the creation of this particular term (Stauffer, 2008). Through blogging, with little or no technical knowledge, a user can carve out his/her own personal space on

the Internet (Godwin-Jones, 2003; Ward, 2004). A blog can take many forms, but its most basic is as “a website that is updated regularly and organized chronologically according to date, and in reverse order from most recent entry backwards” (Ward, 2004: 1). A key feature of blogs is the ability for readers to interact with the blog author, or blogger, sharing their opinions on what is posted via comments (Mishne and Glance, 2006; Wu, 2006).

Blogging is one of the better-researched of the Web 2.0 technologies in regard to its place in education (Motteram and Brown, 2009). There is also an ever-growing literature on its use in EFL (Fellner and Apple, 2006; Z. Jones and Nuhfer-Halten, 2006; Wu, 2005). Research has found rather positive feedback from language learners in response to the introduction of blogging (Ward, 2004; Wu, 2005; Fellner and Apple, 2006). One participant in Ward’s (2004) research enthusiastically expounded on its enjoyableness, and others embraced its communicative nature. Bloch (2007) reported on how blogging aided a generation 1.5 Somali student’s writing skills development. The student struggled with academic writing, although he had strong oral skills. Keeping a blog for his English composition course helped the student to move towards a more academically acceptable style of English writing. It was also noted that the student “display[ed] a variety of rhetorical strategies that could be transferred into his classroom assignments” (Bloch, 2007: 138). Beyond possibly helping to develop transferable writing skills, blogging gives students a genuine purpose and audience for their writing, and enrolls them into the community of writing in the foreign language (Campbell, 2003; D. Zhang, 2009). Knowing the reason for authoring a text and being aware that others are reading it has been deemed essential for developing strong writing ability (Schweiker-Marra and Marra, 2000).

These aspects would seem to suggest blogging can be integrated into the writing process, helping to improve it, and consequently, develop learners' writing ability, though further research is required.

Blogging may influence writing anxiety in a number of ways. It has been argued that focusing on writing as a process, and emphasizing to student writers that their writing does not have to reach immediate perfection, could help to lessen writing anxiety (Jahin, 2012). Writing anxiety is also linked to a lack of practice and frequent pauses during the writing process (Schweiker-Marra and Marra, 2000; Abdel Latif, 2007). A blogger, however, can create an additional, personal space for writing on the Internet, giving them the capacity to work outside of the physical classroom, at their own pace (Ward, 2004). In this way, they can progress through the writing process as quickly or as slowly as they wish, and do additional work if they so desire. In addition, the ability to publish and share one's writing with others was found by Schweiker-Marra and Marra (2000) to lessen writing anxiety; bloggers' writing has the potential to reach a large, genuine audience, beyond their instructors and peers (Godwin-Jones, 2003; Ward, 2004).

Another Web 2.0 technology that could have a positive effect on learners' writing process and possibly ameliorate writing anxiety is a variant of blogging called *microblogging*, which shares certain characteristics with its predecessor but is a distinct entity. Microblogging refers to the sharing of content, such as one's opinions or ideas, with a public audience, often from mobile devices and with character limits (Gao, Luo and Zhang, 2012; Java, Finin, Song and Tseng, 2007). On some microblogging sites, users have the option to track the updates of a microblog author, or microblogger, of interest (Java, Finin, Song and Tseng, 2007). Many

educators have revealed their adoption of microblogging is due to it being “more amenable to ongoing public dialogue” (Junco, Elavsky and Heiberger, 2013: 273) than other Web 2.0 technologies.

The key features distinguishing microblogging from standard or “slow blogging” (Motteram and Brown, 2009: 129) are the conciseness of the posts, resulting from administrator-set word limits, and the greater rate of updates (Java, Song, Finin and Tseng, 2007). The participants of a study that examined both blogging and microblogging revealed that they used microblogging for recording their spur-of-the-moment observations; blogging, on the other hand, was reserved for more serious, extended contemplation (Ebner and Schiefner, 2008). Microblogging can, however, facilitate conversations with the use of hashtags, which an individual microblogger can employ to address messages to others (Honeycutt and Herring, 2009).

A number of proponents have outlined the probable benefits of microblogging in education in general (Grosbeck and Holotescu, 2008; Schweitzer, 2009), but only a few have begun to delineate and determine the effectiveness of microblogging in learning a foreign language. One of the few studies on the use of microblogging in language learning was conducted by Borau, Ullrich, Feng, and Shen (2009), who implemented microblogging via Twitter with 98 EFL students at a Chinese university. They concluded that it enhanced the participants’ communicative and cultural competence in English. Further, the students participating in the study enjoyed using it, with one pleading that it not be taken down. It is claimed that the enforced brevity of microblog posts can promote metacognition, or thoughtful reflection on one’s learning experiences or a particular topic, in a straightforward,

succinct manner (Educause Learning Initiative, 2007). Thus, if microblogging does promote these factors, it may simultaneously reduce writing anxiety and aid writing as a process.

Writing anxiety has been linked to the inability to plan a text (Schweiker-Marra and Marra, 2000), as well as, in the case of L2 writers, greater significance attached to language than ideas (Abdel Latif, 2012). One method of addressing these weaknesses is to emphasize writing as a process—that is, to engage in pre-writing, drafting, editing, and revising—the stages of which are the earmarks of strong writing ability (Green, 2007). However, student writers may feel a sense of isolation if they must progress through these steps alone (Hjortshoj, 2001). The capacity for just-in-time communication allowed by microblogging (Halse and Mallinson, 2009) suggests that it can serve as a way for L2 student writers to connect with their peers and teacher throughout the writing process, at the time and place of their choosing, thereby reducing the seclusion that student writers may find anxiety-provoking.

There may be additional benefits to introducing this technology to the writing process of student writers. By microblogging, EFL learners can ruminate over their writing, while also perfecting their editing skills to fit within the word limits of the platform. Yet, perhaps paradoxically, they need not worry over linguistic errors to an extent that may be debilitating, as is often reported by EFL writers (Kelley, 2008). By its very nature, computer-mediated communication excuses language errors if meaning is still intact (Crystal, 2006; Gonzalez-Bueno and Perez, 2000). As a consequence, learners are able to work out their writing online without feeling the obligation to write in perfect, grammatical English.

From these aforementioned points, it would appear that blogging and microblogging can have a favorable impact on learners' writing anxiety and writing process, but the actual effects on writing and students' level of apprehension following implementation of these technologies still require in-depth examination. It cannot be determined unequivocally what exact effects (or lack thereof) blogging and microblogging have on a student writer's writing process, or his/her writing anxiety, or if these two technologies have similar or different effects.

1.2. Significance of the problem

The difficulties EFL student writers have in achieving adequate writing ability can be seen in the situation with the writing of undergraduate students at Chulalongkorn University in Bangkok, Thailand. The first-year undergraduate English courses, taken by all the university's first-year students (excluding those in the Faculty of Arts), are assessed with midterm and final examinations that allot a significant component of their scores to English writing. One of the aims of the first-year courses is to introduce the undergraduates to the norms of the English academic discourse community, in order to provide a base for their second-year discipline-specific English courses, which also contain a heavy writing component, as well as future writing endeavors. Thus, to succeed at the university, the students must develop a strong English writing ability, yet, only a relatively short amount of time is dedicated to the first-year undergraduate English courses at Chulalongkorn University—only three class hours per week on average, and these three hours are further divided up among all four of the language skills. The resultant amount of class time remaining to foster writing ability is highly limited, since learners simply do not have the luxury of progressing through the writing process when completing any

writing assignments. Affording them a means by which to improve their writing process is likely necessary if their writing ability is to be improved. Being EFL learners, furthermore, means they are likely to experience anxiety from having to utilize language they are not as familiar with for composing. Therefore, though writing skills are given a prominent role in the school's undergraduate English courses, constituting a large portion of both the course content and assessment for the full contingent of the university's undergraduate students, there are several obstacles that may hinder their mastery of English writing.

1.3. Objectives of the study

The objectives of this research study were as follows:

1. To investigate the effects of blogging on Thai undergraduate learners' English writing process.
2. To investigate the effects of microblogging on Thai undergraduate learners' English writing process.
3. To compare the effects of blogging and microblogging on Thai undergraduate learners' English writing process.
4. To examine the effects of blogging on Thai undergraduate learners' writing anxiety.
5. To examine the effects of microblogging on Thai undergraduate learners' writing anxiety.
6. To compare the effects of blogging and microblogging on Thai undergraduate learners' English writing anxiety.

1.4. Research questions

The research questions addressed by this study were as follows:

1. What are the effects of blogging on Thai EFL undergraduate learners' English writing process?
2. What are the effects of microblogging on Thai EFL undergraduate learners' English writing process?
3. What are the differences between the effects of blogging and microblogging on Thai undergraduate learners' writing process?
4. What are the effects of blogging on Thai EFL undergraduate learners' writing anxiety?
5. What are the effects of microblogging on Thai EFL undergraduate learners' writing anxiety?
6. What are the differences between the effects of blogging and microblogging on Thai EFL undergraduate learners' writing anxiety?

1.5. Statement of hypotheses

Though results are still inconclusive, it is strongly suggested by the literature that both blogging and microblogging can help students develop their writing process, while lowering their anxiety. When Bloch (2007) explored how blogs could be utilized to enhance students' academic writing, he found that even a weak writer was able to use a blog to help improve his writing. The author, though cautioning generalizability due to the small scale of the study, nevertheless concluded that "there are some areas of composition pedagogy where blogging is potentially useful" (Bloch, 2007: 137). Blogging is also believed to lower writing anxiety in that it allows writers to practice and share their work with others, both actions postulated to reduce writing apprehension (Schweiker-Marra and Marra, 2000). Microblogging, similarly, has been put forth as having a potentially positive effect on both writing

proficiency and anxiety. Though the literature on microblogging is substantially smaller than that of blogging, the studies that have been done suggest that its brevity and speed appeal to learners, and they can utilize it as a platform to finish their assignments (Dunlap and Lowenthal, 2009; List and Bryant, 2010). This likely has the twin effects of enhancing their writing process (because, for example, the character limit of the platform means they must think carefully about the messages they send, and are thus contemplating language) and reducing writing anxiety, since one of the posited causes of apprehension is lack of help when completing writing assignments. Microblogging eliminates this, by making a number of peers and the instructor always available to help the individual learner.

From the cited research, the following hypotheses were formulated:

1. Blogging will significantly improve Thai undergraduate learners' English writing process.
2. Microblogging will significantly improve Thai undergraduate learners' English writing process.
3. The effects of blogging and microblogging on Thai undergraduate learners' English writing process will be different.
4. Blogging will significantly reduce Thai undergraduate learners' writing anxiety.
5. Microblogging will significantly reduce Thai undergraduate learners' writing anxiety.
6. The effects of blogging and microblogging on Thai undergraduate learners' writing anxiety will be different.

1.6. Scope of the study

There were certain limitations to this study. The research was confined to one university in Bangkok, Thailand—that is, Chulalongkorn University—and only two groups of Thai first-year EFL students studying in the course entitled Experiential English I. The study examined only one aspect of the participants' L2 proficiency (the writing process of learners as they produced English prose that is of an acceptable academic register) and only one of their affective factors (second language writing anxiety). The treatment took place over only ten weeks during the course of one semester at the university, and was integrated into the participants' existing mandatory English course.

By necessity, this study had to work with intact groups as assigned by the institute. Though intact groups offer great convenience for research purposes, their use has a number of important limitations. Intact groups represent a number of threats to both external and internal validity. In terms of generalizability of the study's findings, as the participants were not randomly selected and assigned to groups, they may not be representative of the population under investigation; thus, the results of the sample may not be generalizable to the population. Furthermore, the participants may have had certain characteristics that affected the results of the study in a particular way. It can be argued that the participants of this study share many characteristics with the target population, such as being of a similar age. Where these participants may have differed is they may have had greater access to computer and online resources than other parts of the population, as well as a greater affinity for them, due to their chosen major of engineering, a technology-reliant discipline, leading to a possible greater familiarity with digital technologies.

Another important limitation of this study was that the use of the blogging and microblogging platforms is not voluntary. Participants were required to post a certain number of posts per week. Although it has been argued that mandating the use of such technologies as blogging negates their benefits, Ward (2004: 10) contended that even “coerced-blogging can still produce excellent weblogs.”

1.6.1 Population and sample

The population of this study was all first-year undergraduate students taking the Experiential English I course offered by the Chulalongkorn University Language Institute during the academic year 2012. This population excluded students in the Faculty of Arts, who took a different first-year English course, offered by instructors at their own faculty. The convenient sample taken from this population was two classes of students from the Faculty of Engineering. One class was randomly assigned to use blogs ($n = 24$), while the other was randomly set to use microblogs ($n = 30$).

1.6.2 Variables

The independent variables of this study were the use of blogging or microblogging during the writing process. The dependent variables investigated in this study were Thai EFL undergraduate learners' English writing process and writing anxiety.

1.7. Definition of terms

1.7.1 Blogging

Blogging is defined as the practice of posting entries to a site that automatically formats the entries into a webpage of reverse chronological posts that may potentially be viewed and commented on by anyone with Internet access. There are a number of blogging platforms available on the Internet; two of the most

popular are Blogger (<http://www.blogger.com>) and Wordpress (<http://www.wordpress.com>). In this study, blogging is operationalized as the posting of entries to a participant's personally-created blog on the website Wordpress, as well as leaving comments on posts made by other learners or the instructor.

1.7.2 Microblogging

Microblogging is defined as the practice of writing short (140 characters or less) entries on a site that lists all posts in reverse chronological order, as well as responding to the messages of others, with or without the use of particular hashtags, to be potentially viewed and tracked by anyone with Internet access. Microblogging in this research is operationalized as posting messages to a student's individual account on the microblogging site Twitter (<http://www.twitter.com>), as well as replying to the posts of other users, such as other learners or the instructor. The use of hashtags was neither required nor prohibited, but participants are asked to direct messages to particular users if necessary.

1.7.3 Writing process

The writing process refers to the recursive progression of a writer through different stages towards the completion of a written product (Badger and White, 2000). In the present study, it referred to learners engaging in pre-writing, drafting, revision, and editing activities via their blogs or microblog accounts. A categorization scheme was developed to classify evidence of these stages in learners' entries. The coding scheme was based on past literature on blogs and microblogs, as well as the writing process and peer feedback, but was also continually compared to the data to ascertain its appropriateness. When new categories arose during the course of data analysis, they were included into the coding scheme. Participants were also

questioned regarding their process of completing writing assignments prior to joining the study.

1.7.4 Writing anxiety

Writing anxiety refers to feelings of extreme distress attached to the process of writing (Abdel Latif, 2007). In this study, it was operationalized as a participant's score on the Second Language Writing Anxiety Inventory or the SLWAI (Cheng, 2004). The inventory consists of 22 items that comprise three subscales: Avoidance Behavior, Somatic Anxiety, and Cognitive Anxiety. Avoidance behavior refers to attempts to abstain from writing, such as procrastinating. Somatic anxiety denotes actual physical symptoms, such as a pounding heart. Cognitive anxiety is characterized by such factors as preoccupation. All together, these represent a multidimensional construct of writing anxiety.

The SLWAI employs a five-point Likert response scale that ranges from 1 (strongly disagree) to 5 (strongly agree). Seven of the items are negatively worded and must be reverse scored. A higher overall score on the inventory indicates a higher level of writing anxiety. A Thai version of the inventory (translated by the researcher and validated by three bilingual experts in EFL education) was administered a total of three times to the participants.

1.8. Significance of the study

This study aimed to investigate how the introduction of two different technologies—blogging and microblogging—would affect student writers' writing process and writing anxiety levels. On a theoretical level, this study may provide insight on the effects of students utilizing blogging and microblogging in the process of completing English writing assignments and compare the effects, and whether

students' writing anxiety decreases as a result of these technologies' implementation. For teachers, this study could provide an instructional model that utilizes blogging and/or microblogging to support the teaching and learning of English writing in a less anxiety-provoking manner.

From a more practical perspective, insights from this study could help show student writers additional avenues for improving their English writing, which would allow them a space to practice on their own time and at their own pace. This study can also provide English teachers some guidelines for introducing and incorporating blogging and microblogging to the teaching of English writing as a process. This study could also provide English teachers with ideas or a better understanding of how blogging and/or microblogging may be incorporated into the teaching of writing so as to best serve students' needs. Beyond the practical benefits that could arise for teachers and learners, the institution could benefit in that the course can be redesigned to include an online component, using blogging and/or microblogging, which could help accommodate different learning styles and extend learning beyond the classroom.

Chapter 2

LITERATURE REVIEW

To determine if blogging and microblogging would be of benefit to learners' English writing process and in lowering their writing anxiety, existing literature and research studies on the following topics were reviewed: the writing process, writing anxiety, computer-assisted language learning, computer-mediated communication, blogging, and microblogging.

2.1. The writing process

2.1.1 Overview

The question of how students may be taught to produce acceptable written texts is not one that is easily answered, as there are numerous factors to take into account. To be able to successfully produce a text, one must have knowledge of various issues, such as what communicative strategies to employ and how to manipulate rhetorical patterns (Hyland, 2003). The requirement for these varied competencies makes writing, and subsequently, the task of instructing students regarding this skill, a complex undertaking. It has been proposed, however, that instead of focusing wholly on the desired product, the series of cognitively demanding actions that are taken to achieve the final written product—that is, the *writing process*—should be the focus of instruction. Writing, it has been concluded, does not occur in a neat, linear fashion; rather, writers are constantly engaging with thoughts and words in a recursive manner (Stapleton, 2010; Weigle, 2002). The

process approach to writing emphasizes the importance of the various actions a writer undertakes as he/she works to produce a text, such as planning it and revising it, rather than giving exclusive attention to the final written product (Kroll, 1990). Proponents have championed greater attention to the process of writing by noting that this approach allows writers to more deeply understand the nature of writing and its various functions (Kruse, 2003).

2.1.2 Process versus product approaches to writing

The word *process*, when used to discuss writing research, theory, and pedagogy has been used in three distinct ways: to characterize theories of writing, to refer to the act of writing itself, or to delineate writing pedagogies (Susser, 1994). The last is also often referred to as the *process approach*, and denotes various ways of teaching writing that, at their core, emphasize the development of the recursive techniques and strategies taken to complete a composition (Badger and White, 2000; Barnard and Campbell, 2005).

The shift to instruction that highlighted the process of writing, in contrast to a pedagogy that emphasized the importance of the written product, began in the 1960s (Grabe and Kaplan, 1996; Matsuda, 2003). Though a number of factors contributed to the growth of process-oriented writing pedagogy, its emergence was chiefly as a response to product-based writing instruction. Such product-centered teaching was condemned as a methodology that trained writers to adhere to, and imitate, a set of rhetorical forms and patterns in order to properly construct a written

product (Susser, 1994; Grabe and Kaplan, 1996). In a product-based pedagogical approach, written texts are created, and subsequently graded, without the benefit of feedback or the opportunity for editing or revision (Matsuda, 2003). This approach assumes writing to be a simplistic, linear endeavor, but research has refuted this notion. A seminal 1971 study by Emig, where the writing processes of eight student writers were investigated, was one of the first to focus on a writer's development of a text, as opposed to the text itself. The researcher concluded that the writing process was much less straightforward than previously assumed (Abdel Latif, 2008).

Process-based writing pedagogies acknowledge the complexity of creating a text. Instead of placing the bulk of significance on the final written text, the process approach affords greater consequence to pre-writing, or planning and preparing for writing, composing multiple drafts, and revising and editing each draft on the basis of feedback (Telçeker and Akcan, 2010; Weigle, 2002). The process approach draws on research that eschews the isolated investigation of final written products, and focuses instead on how writers decide on what strategies to employ when developing a text. It is believed that the information gleaned by examining the obstacles writers encounter while they are writing, and what they think about as they work on a text, can consequently be applied to writing instruction (Abdel Latif, 2008).

Two elements are central to process-based writing approaches: awareness and intervention. Product-oriented pedagogies tend to emphasize correctness,

characterizing writing as a straightforward matter of thinking of what one wants to communicate, then finding the appropriate linguistic forms to convey this message. Process-based pedagogies, on the other hand, strive to help learners to become aware of how writing occurs as a series of steps (i.e. a process) and how different processes may be required for different kinds of writing (Susser, 1994). Writing becomes a process of self-discovery, as well as a purposeful activity that occurs within a specific context (Grabe and Kaplan, 1996). Writing instruction, in turn, should focus less on teaching student writers the proper discourse modes to utilize when writing on teacher-assigned topics, and more on how to help student writers find their own voice in their writing, utilizing such tools as instructor and peer feedback, as well as continuous revision (Matsuda, 2003).

Aside from awareness, another central tenet of process approaches is the role of intervention, such as by a teacher, during the writing process. A review of over a decade of research on process-oriented writing classes came to the conclusion that teacher feedback has a positive influence on student writing (Telçeker and Akcan, 2010). Other types of feedback are also effective, including those of peers, as the key is to give writers the chance to interact with their readers throughout the writing process, and to use these opportunities to refine their writing (Susser, 1994; Grabe and Kaplan, 1996). Indeed, the role of feedback, particularly that from peers, is one

of the key tenets of the process-based approach to writing, and will be discussed in further detail in a later section.

In summation, however, the process approach to writing entails the production of multiple drafts of a single text, with each successive one informed and improved by feedback from the instructor and/or peers. This approach mandates the act of revision, which the literature has shown to be linked to good writing (Eckstein, McCollum and Chariton, 2011). Overall, the process-oriented pedagogical movement helped to alter general perceptions of how students learn to write, as well as change the core principles of writing instruction (Grabe and Kaplan, 1996). However, determining what exactly constitutes the *writing process*—that is, what exactly happens with a writer as he/she produces a text—is highly challenging (Stapleton, 2010). The following section details some models of the writing process that have been proposed.

2.1.3 Models of the writing process

Research has looked at various aspects of the writing process, including the behaviors writers engage in as they write and how writers develop over time. These studies may focus either on the entire process or one of the phases, such as revision (Polio, 2003). All of these writing process studies share a common limitation: the writing process, for the most part, is invisible. Writers' thoughts while they are composing are difficult to ascertain with any sort of precision and the external

documents they produce may not accurately reflect what has occurred within their minds (Polio, 2003; Stapleton, 2010).

To help elucidate the factors that impact the writing process, several models of the writing process exist (Weigle, 2002). One of the first and most noted models was generated by Flower and Hayes (Green, 2007; Stapleton, 2010; Weigle, 2002). The impetus behind the creation of this model was the hope that the essential steps and thought patterns a writer employs during the writing process would be better understood (A. Becker, 2006). This model conceptualizes writing as a process that involves the task environment, the writer's long-term memory, and cognitive processes such as planning and reviewing. The writing process itself, according to this model, is actually comprised of three phases—planning, translating, and reviewing (Flower and Hayes, 1981; Stapleton, 2010). During the writing process, this model posits that every writer must continually contend with the rhetorical problem, the requirement for integrated knowledge, and linguistic conventions (Kruse, 2003). Writers draw on various strategies throughout the act of composing a text, with expert writers more capable of exploiting them as necessary due to their overall more well-developed goals for the final product (Butcher and Kintsch, 2001; Montague, 1990). The proposition that writing is a non-linear process was a conclusion that emerged from the conceptualization of this model (Weigle, 2002).

Another influential model of the writing process, put forth by Bereiter and Scardamalia, was one which sought to more clearly illustrate the recursive nature of writing (Becker, 2006; Weigle, 2002). They supplemented the evaluation and revision process proposed by Flower and Hayes with a *compare, diagnose, and operate* (CDO) planning stage. Writers *compare* the mental representation of the text they have composed with what has actually been written, *diagnose* areas that need fine-tuning, and finally, *operate* on the text to implement changes (Becker, 2006). According to this model, writing is a continuous interaction between the text being produced and knowledge that develops from combining concepts and tackling problems that present themselves in the course of creating a written product (Myles, 2002).

The aforementioned models deal with writing in one's first or native language (L1), but research has identified similar processes at work in L2 writing as well (Green, 2007). Though Myles (2002) has cautioned against the wholesale adoption of theories and associated pedagogies that draw on L1 in the teaching and learning of L2 writing, and despite the linguistic, rhetorical, and strategies dissimilarities between L1 and L2 writing, it would appear that L2 writers follow relatively the same progression towards a final written product as their L1 counterparts. There are certain differences, however, in which L2 proficiency may play a role (Leki, Cumming and Silva, 2008). In research cited by Grabe and Kaplan (1996), these dissimilarities include L2 writers

spending a longer amount of time preparing to write, being more bound to a source text, and being unable to utilize intuitive editing, which entails rereading one's writing to see if it appears correct. An additional aspect in which L1 and L2 writers differ is fluency. L2 writers often write fewer words and suffer more interruptions to the flow of their writing (Stapleton, 2010). Furthermore, potential complications may arise from the interplay between writers' L1 and L2, with some theorists proposing that translation difficulties may hinder text production (Büker, 2003). According to Hyland (2003), L2 student writers frequently cite a poor grasp of vocabulary and grammar as one of the major obstacles to writing. In general, however, L1 and L2 writers appear to utilize similar composing strategies, such as rereading one's own writing, modifying organization, and altering word choice (Leki, Cumming, and Silva, 2008).

While these aforementioned models that have focused on the cognitive processes that student writers are engaged in during the writing process have yielded valuable insights into how writers compose texts, they have been criticized for not giving enough focus to the social, historical, and political contexts of writing (Prior, 2006). According to critics, writing cannot be understood apart from its social aspects (Matsuda, 2003), nor can cross-cultural variations be ignored (Myles, 2002). The sociocultural approach to writing views it as a dynamic process that is mediated by numerous resources (Prior, 2006). Activities such as shared planning, collaborative problem-solving, and feedback, such as from peers, are encouraged (Barnard and

Campbell, 2005). Both teacher and peer feedback are said to benefit learners' writing skills development, with peer feedback, in particular, said to be essential to fostering strong writing skills (Crossman and Kite, 2012). The role of feedback is discussed in greater detail in the following section.

2.1.4 Feedback in the writing process

According to Hyland (2003), feedback can be sought at any stage of the writing process. Feedback can come from either an instructor or a student writer's peers. Each type of feedback has its own associated set of advantages and disadvantages.

In general, L2 learners tend to prefer feedback from teachers (Hyland and Hyland, 2006; Nicol, 2010). In a study by Mahfoohd and Pandian (2011), one participant stated explicitly that she did not trust feedback from anyone but her teacher. Likely as a result of the greater importance attached to teacher, or instructor, feedback, there is a higher tendency for student writers to incorporate this feedback into their work (Miao, Badger and Zhen, 2006; Telçeker and Akcan, 2010). Both face-to-face dialogue between teachers and students, as well as written feedback, have been found to be highly effective forms of interaction for learning (Mahfoohd and Pandian, 2011; Nicol, 2010). Though the activity requires a significant dedication of time, teacher feedback has been observed to help students improve their writing from draft to draft, such as through raising their awareness of the audience's expectations (Ferris, 2003; Mahfoohd and Pandian, 2011). However,

despite the apparent benefits of teacher feedback on student writing, Nicol (2010) has pointed out that there are potential problems that arise when an instructor is the only source of feedback. Student writers may become dependent on the teacher, and only use feedback in an effort to produce written work that they believe will please their instructor. Such behavior may stunt their growth as writers. Peer feedback, however, often encourages critical thinking, and necessitates student writers to not only receive input on their texts, but to also provide input on others' work. Thus, though teacher feedback has a greater influence on student writing, peer feedback not only gives student writers additional information on their texts, but can also aid writing development (Miao, Badger and Zhen, 2006; Nicol, 2010).

Peer feedback, which is also known as peer review, has been advocated as a valuable activity for learners as they work on a text. It refers to the practice of having a peer read and offer insights on a text, with a view to improving the final written product (Crossman and Kite, 2012). Peer feedback is believed to benefit student writers in numerous ways, such as raising awareness of their readers, improving attitudes in regards to writing, reducing their apprehension towards the act of writing, and giving them more insight into the writing process and the role of revision (Rollinson, 2005; Tsui and Ng, 2000). Having peers offer feedback fosters student writers' awareness of the audience for their work, encourages more favorable attitudes towards the act of writing, and leads to a greater understanding of both the

writing and revision processes (Min, 2006). These positive effects also appear to hold true when students are writing in a second or foreign language, even when they question their peers' capacity to provide viable feedback (Lockhart and Ng, 1993). For instance, although L2 writers in Tsui and Ng's (2000) study showed a marked preference for instructor feedback, they still acknowledged the role peer feedback played in fostering a collaborative learning environment, helping to draw their attention to problems within their texts, making them more aware of their audience, and encouraging a sense of ownership of their written work. Furthermore, the peer who offers feedback develops his/her own cognitive skills in the process (Crossman and Kite, 2012).

While engaged in exchanging peer feedback, learners have been found to give each other suggestions, actively formulate questions, give and receive explanations, and edit grammar mistakes (Mendonça and Johnson, 1994). For second or foreign language student writers, such as English as a foreign language (EFL) student writers, such interactions can give them the opportunity to receive comprehensible input, engage in the negotiation of meaning, which helps them to notice linguistic features and modify their output accordingly, and develop various language skills that can contribute to their writing skill development (Liang, 2010; Liu and Sadler, 2003). However, some research has found that second and foreign language student writers may not feel comfortable with giving feedback directly to a peer. A few participants

in Ho and Savignon's (2007) research revealed that, when engaging in peer review face to face, they avoided criticizing or delineating problems in their peers' work in order to maintain harmony. Peer reviewers may also be reluctant to provide feedback for fear of ridicule due to their lack of linguistic proficiency (Nelson and Carson, 1998).

Technology, however, particularly computer-mediated communication (CMC) technologies such as chat and email, offers additional channels for undertaking peer review that are cited as helping to make it more comfortable, more motivating, more interesting, and more flexible than traditional face-to-face peer feedback exchanges (DiGiovanni and Nagaswami, 2001; M. Ho and Savignon, 2007; Liang, 2010). However, Guardado and Shi (2007) cautioned against simply substituting traditional face-to-face feedback with online peer feedback. There are a number of pertinent issues to take into account when implementing peer feedback exchange via CMC, chief of which is whether technology has any place and/or use in the writing process. This is an issue discussed in the following section.

2.1.5 Technology and the writing process

There are a number of aspects of the writing process, as well as the writing process itself, that technology, particularly computer-based technologies, may have a positive influence on. The approaches that focus on the process of writing arose alongside constructivism (which will be discussed in-depth in a later section), a perspective that conceptualizes written texts as meaningful units that are derived

from authentic communication (Warschauer and Grimes, 2008), and is one of the theoretical underpinnings of computer-assisted language learning, or CALL (Reagin, 2004). Therefore, process writing and CALL have a common theoretical framework (a framework which will be discussed in greater detail in a later section on computer-assisted language learning). Moeller (2002) summarized a number of advantages of integrating computer technology into the process of writing, including making it easier to produce texts (namely resulting from the advantages of word processing versus typing), allowing greater ease of revision, and fostering collaboration among student writers. Although a wide array of computer-based technologies have been investigated with regard to how they may aid the writing process, key discussion revolves around the impact of access to word processing software and online assistance.

2.1.5.1 Word processing software

A number of ways in which word processing software can benefit writers have been outlined. These include allowing writing to occur with greater speed, increasing the quantity of writing, and transplanting writing to a novel environment that could prove fun and stimulating (Teichman and Poris, 1989). The chief positive features of word processing software, however, appear to be eliminating some of the difficulties related to writing by hand and lending greater ease to the revision and rewriting of texts (Eyman and Reilly, 2006; Montague, 1990; Simic, 1994). The latter aspect is

believed to aid their progression through the writing process (Teichman and Poris, 1989).

The introduction of word processing software may be beneficial because the physical effort required to produce texts can be discouraging for some writers (Simic, 1994). Word processing software immediately gives texts a professional appearance, permitting writers to focus on actually writing, and not on superficial features of the text (Montague, 1990; Teichman and Poris, 1989). Lam and Pennington (1995) found that allowing students to write using word processors resulted in superior compositions than the ones submitted by a control group that wrote using pens. Another study also found that when students were allowed to write with word processing programs, their texts were longer and more fluent; an added benefit was more positive attitudes towards writing (Reed, 1996 cited in Bitter and Legacy, 2008).

With the use of word processing software, which allows changes to be made relatively easily not only to single words, but also to large chunks of text, writers may be more encouraged to engage in revision, which can often be seen as a tiresome, time-consuming process (Lehr, 1995; Simic, 1994). A number of studies cited by Li (2006) discovered that students revised more when they utilized word processing during their writing process. One study of seventh and ninth graders who completed writing assignments with word processors found that though they revised their drafts less frequently than they did on paper, their revisions on-screen involved

longer blocks of text (Lehr, 1995). It was noted by Collier and Werier (1995) that one of the writers they examined in a case study engaged in constant revision at every level of the text, and that this continuous pattern of alterations was supported by the use of word processing software. Cunningham (2002) found that 56% of the 37 Japanese female undergraduate learners he investigated agreed that the use of word processing software enabled them to make revisions to their texts with greater ease and frequency than if they had composed them by hand.

2.1.5.2 Online assistance

Aside from the impact of word processing software, another technological aspect that is seen to influence the writing process is the availability of online assistance. Online assistance can take the form of personal writing assistance, resource materials or tools, or information gateways (Anderson-Inman, 1997). Each form of assistance is believed to have a positive influence on the writing process.

Having access to timely aid throughout the writing process is postulated to be beneficial. The Internet allows writers to be able to contact others at every stage of composing a text. In a case study of an L2 writer, for instance, it was noted that the subject under study consulted with more capable individuals about her writing on at least four occasions. The researcher acknowledged that such collaborative behavior was not novel, but hypothesized that file-sharing and electronic communication capabilities may have promoted this activity to a degree where “advice from peers and mentors is adding a new dimension within the socio-cognitive sphere of

influence and is worthy of inclusion as an integral part of the composing process” (Stapleton, 2010: 303). First-year composition students at two US universities who had access to a MOO, or an Internet-based environment where synchronous online communication can occur, utilized this space to share their ideas with other students and receive their commentary on it. The students who had access to the MOO showed greater improvement in their writing than a control group (Harris and Wambeam, 1996).

In addition to being able to seek continual help, being able to utilize appropriate resource materials or tools may also help the writing process. Korean learners investigated by Chun (2004) revealed that as they were writing, they relied on Internet-based bilingual dictionaries to provide synonyms and example sentences with greater speed than print dictionaries. In a study reported on by Zhao (2003), the use of a French grammar checker by advanced students during the composition of essays appeared to positively affect their final texts. The texts produced with the aid of the aforementioned grammar checkers received higher scores than those produced by a control group.

Finally, being given access to various tools to exploit could also lead to enhanced writing. Both a word processor that possessed the ability to track alterations to a text and email were utilized by participants to aid in the exchange of peer feedback in Ho and Savignon’s (2007) study. They found several elements of

the technologies beneficial, and the use of them to review their peers' texts was felt to have contributed to improvements in their own writing. After they were given access to such online tools as a discussion board and links to websites about writing and grammar, the writing of a group of low-ability EFL writers showed improved fluency, complexity, and comprehensibility (Al-Jarf, 2004). Thus, it would appear that being given information on different tools can have a positive impact on learners' writing.

In summary, studies that have looked at how the use of word processing software and access to online assistance have impacted writing have seen rather positive outcomes. This would seem to indicate that technology, especially computer-based technologies, are likely to be beneficial when integrated into a student's writing process. As observed by Levy (2009: 773), "these tools variously address central problems in the development of the writing skill, including the need for accuracy, production, multiple drafts, channels for context-sensitive feedback and correction, peer editing, reflection, and a record of the process."

2.2. Writing anxiety

2.2.1 Overview

Much of the literature on anxiety associated with language learning is skewed heavily towards the uneasiness that arises from speaking (Atay and Kurt, 2006; Cheng, 2004). However, it has been noted that for some, writing in a second or foreign language can also be a highly anxiety-ridden activity. The terms *writing anxiety* and

writing apprehension, coined by Daly and Miller (1975), are used interchangeably in the bulk of the literature (Abdel Latif, 2007), to refer to feelings of distress that are associated with the act of writing, and often with an aversion to it (Cheng, Horwitz and Schallert, 1999). Anxious writers may have the intellectual capacity to complete writing tasks, but suffer due to negative feelings towards the act of writing (McLeod, 1987), which manifests as a measurable level of anxiety (Cheng, Horwitz and Schallert, 1999; Mat Daud, Mat Daud and Abu Kassim, 2005). Some anxious writers may even exhibit physical symptoms, such as perspiring or blushing (Halse and Mallinson, 2009). Furthermore, anxious writers have been found to produce poorer quality texts and often receive lower grades in composition courses (Hassan, 2001; Mat Daud, Mat Daud and Abu Kassim, 2005). Research has also found that writing anxiety plays a part in learners' academic and career choices, as highly anxious learners are unlikely to take writing courses beyond minimum requirements, which limits their writing development and access to occupations that require extensive writing (Cheng, 2002; Masny and Foxall, 1992). Later on, if L2 writers continue to avoid writing, their potential for developing as writers diminishes along with opportunities that would otherwise be available to them (Belcher, 2012). As can be seen, due to the generally negative relationship observed between writing anxiety and various aspects of writing, ways to lower or eliminate anxiety is an important goal for L2 writing instructors, because learners' academic, as well as future professional, lives may be at stake.

2.2.2 Definition and proposed antecedents of writing anxiety

Writing is not a purely cognitive activity, but engages affect as well (Cheng, 2002). Writing anxiety, or writing apprehension, denotes the feelings of fear and worry that writers experience when they are engaged in a writing task, as well negative emotions they possess about themselves as writers, which subsequently have an adverse effect on one or more steps in the writing process and/or product (McLeod, 1987; Öztürk and Çeçen, 2007).

Second language (L2) writing anxiety is linked to, but distinct from, anxiety that is aroused by learning a foreign language, known as foreign language classroom anxiety (Cheng, Horwitz, and Schallert, 1999). Cheng (2004) conceptualized writing anxiety as a multidimensional construct, consisting of three distinct components: cognitive, physiological, and behavioral. L2 writing anxiety is seen as a consistent apprehensive response linked to writing in a second or foreign language, and “involves a variety of dysfunctional thoughts, increased physiological arousal, and maladaptive behaviors” (Cheng, 2004: 319). That is, it is an anxiety that appears in response to being asked to engage in writing in another language. Research supports the existence of anxiety aroused by specific language skills—not only writing, but also speaking, listening, and reading (Cheng, Horwitz, and Schallert, 1999).

Since being named by Daly and Miller (1975), writing anxiety has become one of the most-investigated affective factors (McLeod, 1987). Despite being heavily-researched, however, there is still no definitive answer as to what causes a writer to

become anxious: is it a consequence of a faulty writing process, or is it anxiety that makes one's composing process suffer in quality (S. Lee and Krashen, 2002)? There are several proposed antecedents to L2 writing anxiety. In studies cited by Abdel Latif (2007), L1 writing anxiety is believed to originate from and persist due to the nature of writing tasks, poor writing skills, past problems with writing, and fear of negative reader reaction and evaluation. Research that has looked at L2 writing anxiety supports these factors, but has also uncovered unique ones, namely writers' perceived writing self-efficacy, lack of writing practice, and the type of writing instruction one is exposed to (Abdel Latif, 2007; Cheng, 2002). Foreign language writers may also face apprehension due to discomfort or unfamiliarity with the target language and its conventions, due to fewer experiences in writing in the target language (Abdel Latif, 2007; Johanson, 2001; Phinney, 1991).

Some theorists believe that students' distress may result from the inherent nature of writing. Writing is a product-oriented activity, usually undertaken by an individual devoid of external assistance (Atay and Kurt, 2006). Anxiety may be provoked when writers encounter problems in attempting to produce a written piece of work and have no avenues of support.

Poor writing skills may also be linked to anxiety, though the direction of causality has yet to be determined. It has been proposed that poor writing ability leads writers to feel anxious, as they do not have the capacity to fulfill the task; their

anxiety, consequently, stops them from seeking out additional writing instruction or chances to practice, and as a result, they do not improve their skills. It, thus, becomes a self-sustaining cycle (Öztürk and Çeçen, 2007). On the other hand, it may be the anxiety itself that leads to the poor writing skills, as a number of studies have found a negative correlation between writing anxiety and lower quality writing (Hassan, 2001; S. Lee and Krashen, 2002). The anxiety that writers face may give a false impression of deficient writing ability. However, as highly-skilled writers also exhibit anxiety, writing anxiety and writing skills may interact in a reciprocal manner (Öztürk and Çeçen, 2007).

The literature points to writers' panic over sharing their work with others and having it evaluated negatively as another possible source of anxiety. Four Taiwanese graduate students investigated by Johanson (2001) cited the possibility that readers would notice errors in their writing a source of anxiety. This fear of negative evaluation, thus, may be linked to low writing proficiency—learners suffer apprehension because they are concerned they will be judged unfavorably, as their poor proficiency hinders their ability to express themselves with precision and sophistication (Silva, 1993 cited in Öztürk and Çeçen, 2007). This factor may be connected to a key predictor of L2 writing anxiety: one's perceived ability as a writer, or writing self-efficacy.

Writing self-efficacy refers to the confidence an individual has in his/her own competence as a writer (Abdel Latif, 2007; Cheng, Horwitz and Schallert, 1999). Low levels of writing self-efficacy are associated consistently with detectable levels of writing apprehension (Cheng, Horwitz and Schallert, 1999). In fact, Cheng (2002) observed that the best predictor of L2 writing anxiety is not writing achievement, but rather what writers believe about their own writing. MacIntyre, Noels, and Clément (1997: 280) hypothesize that there are certain learners who “believe that they cannot learn or perform in a L2, creating negative expectations which in turn lead to decreased effort and achievement”. Therefore, one’s self-confidence, or lack thereof, in one’s capability as a writer appears to feed into writing anxiety. This conjecture is backed up by researchers such as Singh and Rajalingam (2012), who discovered an inverse relationship between the self-efficacy beliefs and writing anxiety levels of 320 Malaysian pre-university students.

Another possible antecedent to writing anxiety is simply having limited chances to practice composing in the target language. Not having enough practice may lead to anxiety via fear of negative evaluation, as one has not had opportunities to perfect one’s writing expertise (Schweikker-Marra and Marra, 2000). For L2 writers, this factor may also overlap with their lack of knowledge in terms of the target language, such as writing conventions. Johanson (2001) investigated four graduate students pursuing degrees in American universities and in interviews with them, it was

revealed that they were uncertain as to what was expected by their professors when writing assignments were given. This uncertainty led to them experiencing writing anxiety.

How writers are taught can also lead to writing anxiety. The participants in Atay and Kurt's (2006) study pinpointed the pedagogical practices of their former teachers as a key source of writing anxiety. Similarly, in Abdel Latif's (2007) study of 57 male Egyptian prospective teachers taking a pre-sessional English course, it was found that for some of the participants, writing anxiety stemmed from the type of writing instruction they had been exposed to. Three key aspects were highlighted as being largely responsible for writing anxiety: instructor emphasis on theoretical aspects of writing versus practical, coupled with strategy training; dearth of instructor feedback on writing; and instructors' excessive use of criticism. In interviews conducted with 16 Taiwanese university students, Lin (2009) discovered that fear of teachers' negative comments, teachers assigning topics of little interest for writing, and teachers restricting the format of student writing, thus curtailing creativity, were among the factors identified as provoking writing anxiety.

The literature advances several other possible antecedents for second language writing anxiety, but, at the end, as Atay and Kurt (2006: 111) note, "sources of anxiety are closely intertwined, creating a difficulty in teasing out a discrete factor or source".

2.2.3 Associated effects of writing anxiety

Regardless of L2 writing anxiety's cause, it may be concluded that it is an affective factor of such importance because numerous studies have found it negatively correlates with both aspects of the writing process and the final written product. Simply put, L2 writing anxiety poses a serious problem for L2 writers—causing difficulties while they are writing and with the eventual work they produce.

Difficulties that writing anxiety may pose can be seen in how anxious writers tackle writing assignments. Research cited by Abdel Latif (2007) revealed that more apprehensive writers will pause more often while trying to write, and usually pay less attention to plotting out the structure of their writing. Atay and Kurt (2006) found that in a sample of 85 prospective teachers, those with high writing anxiety reported difficulties with the process of writing in their L2 of English, specifically the ability to formulate and organize ideas when writing. Anxious writers also often edit too early in the writing process (Phinney, 1991). Writers with high writing apprehension, furthermore, tend to be overly concerned with grammar and word choice when compared to their low apprehension counterparts (S. Lee and Krashen, 2002).

As can be seen, research has uncovered negative relationships between writing apprehension and the writing process. However, the compositions anxious writers produce are also problematic. In a study of 182 participants studying at an Egyptian university, the compositions produced by those determined to have high apprehension were judged to be of lower quality than their less-anxious counterparts

(Hassan, 2001). Studies have also uncovered negative relationships between L2 writing anxiety and syntactic complexity (Atay and Kurt, 2006), total t-unit count (Hadaway, 1988, cited in Abdel Latif, 2007), and sentence structure (Abu Shawish and Atea, 2010). Highly anxious writers also tend to produce shorter texts (Wu, 1993, as cited in Abdel Latif, 2008), and engage prematurely in revision and editing. Preoccupation with grammar and word choice while revising and editing their work often leads to less attention being paid to content and organization while writing, which affects their final written product (S. Lee and Krashen, 2002).

These faulty compositions may then lead to other negative consequences. When Cheng, Horwitz, and Schallert (1999) administered a measure of L2 writing anxiety to a sample of 433 Taiwanese university students, they discovered a small, though significant, negative correlation between students' writing apprehension and their English (i.e. the students' L2) writing achievement. Lee and Krashen (2002) uncovered a relationship between high writing anxiety and lower grades for a sample of 53 Taiwanese learners. Mat Daud, Mat Daud, and Kassim (2005) found that greater writing anxiety correlated with lower writing performance on a final writing examination in a sample of Malaysian university students.

Beyond these negative correlations with the writing process and the actual written product, writing anxiety also appears to adversely affect individuals' attitudes towards the act of writing, their overall willingness to write or even to pursue

additional or advanced writing classes (Daly and Miller, 1975; Masny and Foxall, 1992), behaviors that may seriously hinder their academic and occupational opportunities.

2.2.4 Measurement of writing anxiety

The development of a self-report questionnaire to measure respondents' writing apprehension by Daly and Miller (1975)—the Daly-Miller Writing Apprehension Test (WAT)—helped pave the way to greater understanding of this particular affective factor. The 26 items of the WAT investigated several factors related to anxiety, including fear of the act of writing and fear of negative evaluation (S. Lee and Krashen, 2002). Although the WAT has been shown to have both concurrent and predictive validity, as well as satisfactory internal consistency, the effectiveness of this instrument's utilization in L2 studies (as the second language version WAT, or SLWAT) has, however, been called into question (Abdel Latif, 2007; Cheng, 2004). Gungle and Taylor (1989, as cited in Masny and Foxall, 1992), after utilizing a modified version of the WAT, expressed the concern that it may be incapable of measuring ESL students' anxiety levels. Cheng (2004) notes that it was initially created in reference to L1 (more particularly, English) speakers. Research has determined, however, that L2 writing anxiety is a unique affective factor, different from L1 writing anxiety (Cheng, 2002). Therefore, there may be some doubt as to the instrument's ability to act as an accurate measure of L2 writing anxiety. The WAT may simply not be able to “tap the most essential aspects of second language

writing anxiety” (Cheng, 2004: 314). Furthermore, the construct validity of the WAT has been questioned (Abdel Latif, 2007; Cheng, Horwitz and Schallert, 1999). Daly and Miller (1975) initially claimed writing apprehension as a unidimensional structure, a single, unified construct. McKain (1991, as cited in Cheng, 2004), after undertaking a content analysis, discovered that of the 26 items of the WAT, only 14 addressed feelings, and of the 14, only four dealt specifically with the presence of anxiety. In a principal component analysis by Cheng, Horwitz, and Schallert (1999) of the second language version of the WAT, the instrument was found to contain three major components (self-confidence in writing in English, a disinclination to write in English, and fear of evaluation), not one. Abdel Latif (2007) observed that a number of studies that investigated writing anxiety also included self-efficacy, and concluded it was due to their use of the WAT—it appears to measure a writer’s confidence along with his/her apprehension.

Cheng (2004) developed the Second Language Writing Anxiety Inventory (SLWAI) specifically to address the concerns raised about the WAT’s capacity to reveal the writing apprehension of L2 writers and its problematic construct validity. The instrument conceives of L2 writing anxiety as being comprised of behavioral, cognitive, and physiological components. It assumes L2 writing anxiety to be a confluence of dysfunctional actions and negative writing-related thoughts, as well as a state of heightened physiological arousal, that arises consistently and specifically

in response to being asked to write in a second or foreign language (Cheng, 2004; Cheng, Horwitz and Schallert, 1999). The construct measured by the SLWAI was found to be distinguishable from self-efficacy, and as it was initially developed with reference to L2 learners (specifically, Taiwanese learners of English), it appears to be a more valid instrument for use in elucidating L2 writing anxiety.

Though other scales for measuring the construct of writing anxiety exist, such as the English Writing Anxiety Scale or EWAS developed by Abdel Latif (2007), the two aforementioned instruments are the most widely-cited in the literature on this affective factor. This would seem to indicate their reliability and validity as instruments for the measuring of writing anxiety.

2.2.5 Technology and writing anxiety

Technology, particularly computers, seems to promise many avenues for reducing L2 writing anxiety. A review by Pennington (1993) on the effects of word processing on L2 writing cited numerous studies that asserted that the use of a word processor would help to decrease writing anxiety. A statistically significant reduction in writing anxiety was discovered in a group of intermediate ESL students after 15 weeks of writing with the help of networked computers, along with a minor, though significant, improvement in writing ability (Sullivan and Pratt, 1996). After implementing a writing course that integrated WebQuests, a form of inquiry-driven learning that makes use of online resources, Chuo (2007) discovered a significant decrease in participants' writing anxiety. The participants in Skinner and Austin's

(1999) study who used computer conferencing were of the opinion that they were prevailing over their writing anxiety, as they saw the large volume of messages they were quickly sending as a chance to practice without having to focus too much on surface errors. The researchers noted that in class, many of the students were nervous about their ability to produce acceptable texts, and were overly preoccupied with linguistic issues. The computer conferencing freed them from these concerns and as a result, their attitudes towards writing changed. This may point to the beneficial nature of computer conferencing and other related technologies in reducing writing anxiety, as one of the symptoms of writing anxiety is negative attitudes towards writing. Furthermore, in a case study, Mabrito (2000) found that highly-anxious writers contributed more and longer messages to a global online newsgroup, concurrent with a reported positive view of the activity and greater level of comfort than when participating in a local newsgroup composed only of other students. It was surmised that the relative anonymity of communicating with unknown parties online helped to ease their anxiety.

Even when a study involving computers does not reveal a statistically significant reduction in writing apprehension, it may still find that learners' feelings regarding writing have improved. One example is Phinney (1991), who compared a group of L1 and L2 writers (learners of English) after they wrote using computers for one whole semester. It was concluded that though their writing apprehension did not decrease, the L2 writers in the sample appeared to gain more from the use of a

computer during their writing process than their native English writer counterparts. The analysis seemed to indicate that computer usage helped to make their attitudes towards writing more positive. This result and conclusion were echoed by Teichman and Poris (1989). Though they did not detect a significant reduction in the writing apprehension of an experimental group that used word processing, they pointed out that a number of the participants expressed positive attitudes to the use of computers to complete their writing assignments. The researchers (1989: 100) noted that “[s]uch...comments cannot be seen as unimportant”.

Other suggested, non-technology related measures for handling writing anxiety can also be implemented through computers. It has been argued that focusing on writing as a process, and emphasizing to student writers that their writing does not have to reach immediate perfection, could help to lessen writing anxiety (Jahin, 2012). Applying a process approach to writing was believed to be partly responsible for participants’ self-perceived alleviation of writing anxiety in Tsai’s (2009) study. Word processors and Web 2.0 applications such as blogging and microblogging can easily be used to promote writing as a process, as they allow easy revisiting and editing of texts (Phinney, 1991; Ward, 2004).

Feedback from supportive peers has also been identified as helpful in lowering writing anxiety, by improving student writers’ attitudes towards the act of writing (Tsui and Ng, 2000). In a study of the effect of peer feedback on prospective

teachers' writing anxiety, it was discovered that peer feedback resulted in lower anxiety than teacher feedback (Kurt and Atay, 2007). Most blogging platforms allow both signed and anonymous comments to be made to posts (Carney, 2009), so writers can receive feedback without knowing its origins, which may help to reduce their anxiety. Furthermore, Hirvela (1999) argued that even when opportunities for peer feedback are part of the writing process, student writers are still often left "to their own devices when it comes to making important final decisions about language to be used, rhetorical strategies to be employed, and, in the common case of college-level students writing about assigned reading material, interpretations of the text(s)" (Hirvela, 1999: 7). That is, waiting for feedback only when a draft is finished, as is often the case in process-writing approaches (Hyland, 2008), may lead to a sense of isolation, which can be highly anxiety-provoking for some student writers (Hjortshoj, 2001). Therefore, what would seem to be needed is an environment where student writers can communicate with their peers, as well as their instructor, whenever they feel they need support. Both blogs and microblogs allow users to connect to each independent of time and place, and as such, can provide a means for learners to offer feedback to each other throughout the entirety of the writing process. As such, there is a great potential for the integration of these technologies into the teaching and learning of writing that may help to diminish L2 writing anxiety.

To conclude, second language writing anxiety can lead to problems for writers, affecting both their writing process and their written products. Although what causes writing anxiety has yet to be definitively determined, research hints at several factors, including one's perceived writing ability, one's past writing instruction, and concern over having one's writing negatively evaluated. Integrating technology into the teaching and learning of writing may help to alleviate L2 writing anxiety, as demonstrated by several studies with various technologies.

2.3. Computer-assisted language learning

2.3.1 Overview

Computers—and by extension, the Internet—have become a ubiquitous component in the everyday lives of many people worldwide. The omnipresence of computers and the Internet has doubtlessly had an impact on its users. The stark reality of modern foreign language education, therefore, is that to best equip learners with the language they require, educators must understand Marc Prensky's (2001: 1) assertion that “[o]ur students have changed radically. Today's students are no longer the people our educational system was designed to teach”. This new generation is fundamentally different from any prior, having grown up in an environment rich with previously-unknown technologies that have defined and molded them, leading them to act and think in ways thoroughly distinct from previous generations of learners (Halse and Mallinson, 2009; Thorne and Payne, 2005). It is clear that these digital-age foreign language learners need to be taught using a method that addresses these

differences, and theorists point to the viability of using the very technologies that have influenced them, such as computers and the Internet, to do so. Teaching and learning using these tools have a number of theorized benefits, including individualization of student work, the ability to collaborate with others, increased opportunities for rich interaction, boosted learner motivation, enhanced student achievement, greater cultural understanding, variable and authentic materials for study, independence from the reliance on a single source of information, affordance of experiential learning, and the entertainment value of using computers and related technologies (K. Lee, 2000; Warschauer and Healey, 1998). While there are educators who believe in teaching that eschews copious external resources (Thornbury, 2000), it may also be argued that if pedagogy ignores upcoming technological tools, potentially useful avenues for promoting positive learner outcomes may be overlooked (Salaberry, 2001). How best to take advantage of technology so as to benefit language learners is an important issue, for, though computers and the Internet have the potential to enhance learning, they can just as easily be used for reinforcing more traditional pedagogical methods (Reagin, 2004).

2.3.2 Definition and theoretical foundations of computer-assisted language learning

Computer-assisted language learning (CALL) is defined by Beatty (2003: 7) as “any process in which a learner uses a computer and, as a result, improves his or her language”. This definition serves to encompass the breadth of computer-assisted

language learning, as well as the dynamic nature afforded by the ever-changing technological landscape. The use of computers in language education has not only been defined by the technologies that have been available, however, but have often also been aligned with prevailing beliefs regarding language learning (Warschauer and Healey, 1998). That is to say, CALL has been strongly influenced by what technological innovations have been available, but the manner in which computers have been introduced into the teaching and learning of a language has also been informed by prevalent theories of learning. When, for instance, learning was seen as “a process by which learners become able to make specific set responses to particular stimuli” (A. Pritchard, 2007: 2), as it was conceptualized of within the behaviorist view of learning, computers served to provide the necessary stimuli. An influential theory of learning upon whose principles present-day CALL is predicated is constructivism (Moeller, 2002).

Constructivism “sees learning as a building activity in which individuals build an understanding of events, concepts, and processes, based on their personal experiences and often supported and developed by, amongst other things, activity and interaction with others” (A. Pritchard, 2007: 2). Knowledge is not believed to be merely imparted by the teacher to learners; rather, knowledge is *constructed* as a result of a joint effort between the instructor and students (Moeller, 2002; Oxford, 1997). Learning is a process that is social, situated, metacognitive, and an interaction

between what a learner already knows and what he/she is to learn (A. Pritchard, 2007). Ultimately, from the perspective of constructivism, it is the student who has the greatest command over his/her learning process (Ullrich, Borau, Luo, Tan, Shen and Shen, 2008). It is the job of teachers to fashion an environment that encourages learners to actively process and create meaning through the materials presented to them. Learning thus becomes a personal, ongoing exchange between instructors and students, with the former serving to initiate and advise on meaningful, contextualized activities (Sasaki, 2000; Simsek, 2009). Beatty (2003: 97) offered this summary:

Constructivism is a problem-orientated learning approach in which the learner is expected to construct his or her own reality based on a personalized understanding of the learning materials, often through analysis and synthesis of ideas. The role of the teacher is as a facilitator of learning, rather than as an expert. Instead, expert advice is culled from a variety of authentic sources, including knowledgeable individuals. Mistakes are encouraged if they help with learning.

Two of the key theorists in this school of thought are Piaget and Vygotsky. For Piaget, the driving mechanism of intellectual development is the cognitive conflict one encounters when one is faced with opposing notions and viewpoints (Falchikov, 2001; Littleton and Häkkinen, 1999). For children, interacting and working with peers fosters an authentic exchange of ideas, as well as in-depth discussion, wherein a

learner's original mental schema may be challenged. He or she then experiences a state of *disequilibrium*, which is remedied by *accommodating* the new information and restructuring his/her conception of the world, thereby constructing his/her own knowledge (Falchikov, 2001). Peer interaction is seen as crucial to this process, whereas interactions with adults (or more generally, more capable others) is seen as either immaterial or even harmful. As children lack the ability to successfully judge ideas presented by adults, these cannot create the type of conflict that results in cognitive development (Littleton and Häkkinen, 1999). It is only through having one's ideas go through this socio-cognitive conflict that they can go through a process of change and refinement (Prinsen, Volman, Terwel and Eeden, 2009).

Vygotsky also believed social interaction to be the key to learning, though researchers in this tradition, the sociocultural perspective or sociocultural theory, place a greater emphasis on it than Piagetian researchers. This social constructivist view of learning sees adults or more competent peers as central to a learner's cognitive development. Teachers aid the learning process by providing support that gradually decreases as students gain greater self-direction and empowerment (Oxford, 1997). The chief processes that drive development are negotiation of meaning and joint construction of understanding (Littleton and Häkkinen, 1999). Vygotsky envisioned a *zone of proximal development*, the metaphorical space between what a learner on his/her own can achieve versus what he/she can

potentially do with the aid of others who are more experienced or skilled (Oxford, 1997; Reagin, 2004). Teachers and more able peers provide *scaffolding*—such as hints or suggestions—to aid learners’ cognitive development; as the learner starts to internalize the knowledge that arose during social interaction, less and less scaffolding is needed (Oxford, 1997; R. J. Pritchard and Honeycutt, 2007). Thus, an individual’s cognitive development is when he/she internalizes information and thinking processes that have been acquired from interacting with others.

When viewed through a social constructivist lens, Lantolf (2007) understands language learning to be a mediated process. Mediation occurs in one of three ways: by oneself through private speech, through experts and peers in social interaction, and by artifacts such as language, tasks, and technologies. To learn a language, one must engage with an environment that is shaped by cultural, societal, and institutional practices; it is through participating in these practices that one learns a language (Lamy and Hampel, 2007).

2.3.3 Cooperative and collaborative learning

Two instructional methods derived from constructivist and social constructivist theories are *cooperative learning* and *collaborative learning*. No consensus as to the definitions of, or distinction between, cooperative and collaborative learning exist in the literature. Some theorists treat them as identical, using the terms interchangeably (Oxford, 1997). Some argue for a clear divide between them (Tongdeelert, 2003). On the surface, at least, cooperative learning and

collaborative learning bear a striking resemblance to each other. As Rockwood (1995, cited in Panitz, 1999) pointed out, both types of learning utilize groups as the unit of learning and interaction, yet neither is simply group learning—both are more sophisticated concepts that stem from a belief in the effectiveness of learners working together towards a pedagogical outcome (Roschelle, Rafanan, Estrella, Nussbaum and Claro, 2010). Though both cooperative learning and collaborative learning advocate the use of learning groups, and are both based on constructivist principles, it is when one delves deeper and attempts to elaborate on these terms that differences and contradictions appear, leading a number of researchers to call for a clear-cut demarcation between what can be labeled *cooperative learning* and what can be labeled *collaborative learning*.

B. L. Smith and MacGregor (1992) characterized collaborative learning as a broad continuum of practices, with cooperative learning the most vigilantly structured of the various collaborative approaches. Cooperative learning is understood to be a highly-directed set of processes, with the instructor offering aid as needed; it is often tied to specific content, and its main purpose is to “help students work together to reach learning goals” (Oxford, 1997, p. 444). When working cooperatively, group members divide up tasks, complete them on their own, and bring together the results of their individual labor to create the final product (Dillenbourg, 1999; Stahl, Koschmann and Suthers, 2006). Oxford (1997), synthesizing

research in both L2 and non-L2 learning contexts, put forth six principles as underpinning cooperative learning:

Positive interdependence: When group members are positively interdependent, the success of the individual group member is tied to the performance of his/her fellow members (D. W. Johnson and Johnson, 1987).

Individual accountability: Each member is held accountable through continual individual assessment and evaluation, and has his/her progress reported to the group so help can be given (Oxford, 1997; Panitz, 1999).

Team formation: Groups may be formed according to various criteria, though Johnson and Johnson (1987) advocate members who vary in terms of ability and personality; other methods for grouping include randomly and by learner interest (Oxford, 1997).

Team size: Whatever the method used for forming groups, it appears that the optimal size of cooperative learning groups is six to seven learners—larger groups may obstruct successful cooperation (D. W. Johnson and Johnson, 1987; Oxford, 1997).

Cognitive and social development: Cognitive and social development are seen as the key goals of cooperative learning—group members not only develop their intellect, but gain crucial social skills needed to work with others, such as conflict

management, decision-making, and turn-taking (D. W. Johnson and Johnson, 1987; Oxford, 1997; Panitz, 1999).

In summary, cooperative learning occurs when there is a vertical distribution of tasks to group members, who all work individually to produce a result that is combined with other members' into one final product. Though the group members may have a shared goal, and depend on each other for success, but the work itself is individual.

Collaborative learning, on the other hand, does not advocate individually-completed tasks that contribute to a resultant final output, but rather supports learners doing all the work together (Dillenbourg, 1999). It is a less rigidly-structured instructional method, with most of the power usually placed in the hands of learners, who engage in constructing knowledge as a single entity (Oxford, 1997; Panitz, 1999; Stahl, Koschmann and Suthers, 2006). Collaborative learning is rooted in social interactions such as negotiation and information sharing (Stahl, Koschmann, and Suthers, 2006), which are inherently group-based activities. As Oxford (1997: 448) noted, in collaborative learning situations:

Learning occurs while people participate in the sociocultural activities of their learning community, transforming (i.e. constructing) their understanding and responsibilities as they participate.

Several assumptions are in place when collaborative learning is employed (B. L. Smith and MacGregor, 1992); it is believed that to learn is to take an active role in constructing knowledge, to be challenged by problems that require higher-order thinking skills, and to engage in social practices. Furthermore, in collaborative learning, it is acknowledged that students differ in many aspects, including their learning styles, life experiences, and goals, and these differences are honored and seen as valuable for contribution to the group (Panitz, 1999; B. L. Smith and MacGregor, 1992). Collaborative learning, then, is an instructional method that greatly emphasizes group synergy. It champions learners engaging in social processes, in order to become members of their respective communities. It is through these group interactions that knowledge is built up and learning takes place.

In summary, cooperative and collaborative learning share certain features, such as advocacy of learning groups, but differ on many others. These differences are summarized in the table below, adapted from Oxford (1997):

Table 2.1 Conceptual comparisons between cooperative and collaborative learning (Oxford, 1997)

Aspects	Cooperative Learning	Collaborative Learning
<i>Purpose</i>	Enhances cognitive and social skills via set of known techniques	Acculturates learners into knowledge communities
<i>Degree of structure</i>	High	Variable
<i>Relationships</i>	Individual is accountable to the	Learner engages with “more capable others”

	group and vice versa; teacher facilitates activities but the group is the focus	(teachers, advanced peers, etc.) who provide assistance and guidance
<i>Prescriptiveness of activities</i>	High	Low

Despite the literature offering support for a clear separation between cooperative versus collaborative learning, in actuality, many researchers conflate the two instructional methods. A study may claim to examine cooperative learning, but operate under a theoretical framework that is more closely aligned with what is perceived as collaborative learning and vice versa. For instance, Morton (1988), in detailing a case of cooperative learning in British Columbia, had as a subheading *Elements of Effective Collaboration*, and goes on to discuss the need for such elements as positive interdependence and individual accountability, which are often associated with cooperative learning. Therefore, these terms shall be used interchangeably in this research, and are meant to denote situations where the teacher acts as a facilitator and encourages learners to take control of their own learning by working together (Lamy and Hampel, 2007).

Collaborative learning, in and of itself, has been deemed beneficial for learners. Empirical research has delineated the several advantages afforded by learning collaboratively (Zurita and Nussbaum, 2004 cited in Roschelle, Rafanan, Estrella, Nussbaum, and Claro, 2010). Such learning enables learners to:

1. see their peers not as competitors, but sources of knowledge and support.
2. learn to articulate their own thoughts, as well as examine others' ideas.
3. become more active participants in their own education, and end up learning and enjoying themselves more.
4. develop their teamwork and social skills.
5. allow thought and understanding to take precedence over rote memorization.

These benefits are believed to be extended to computer-assisted language learning situations. Chief among these proposed benefits of computers is that they allow the extension of collaborative efforts to go beyond the classroom—learners can collaborate at almost any time, and almost anywhere, as long as they access to a private network or the Internet (Lipponen, 2002). Put simply, students can learn “any time and any place, from one’s bedroom in pajamas and bunny slippers or from a library or computer lab” (Palloff and Pratt, 2007: 158). Another advantage is that learners who are also too anxious or afraid of contributing their efforts for fear of derision may see twofold benefits. Firstly, they may also embrace the time lag built into all text-based computer-mediated communication, for it allows time to formulate one’s thoughts before transmitting them, thus allowing for reflection on their own ideas and the ideas presented by others (Lipponen, 2002; Sullivan and Pratt, 1996). Secondly, fearful students may benefit from the anonymity afforded by

computers, as they can share their thoughts but remain unknown (Sullivan and Pratt, 1996). Students, regardless of their language level, can have a say in a computer-based environment, without fear of ridicule or punishment (C. M. L. Ho, 2004). Learning online can make interactions between all participants more equal than face-to-face settings (Kitchakarn, 2013; Palloff and Pratt, 2007). Furthermore, the Internet allow learners to be connected in ways that were heretofore nearly impossible. For instance, users of different languages at different institutions may be linked in order to aid both linguistic, as well as intercultural, development (Lamy and Hampel, 2007).

However, concerns have been raised about the degree of collaboration computers can result in. Lamy and Hampel (2007) point out that collaboration is not guaranteed even when a collaborative course design is in place or a collaborative setting is made available. Learning online can, in fact, be an isolating experience for students (Palloff and Pratt, 2007). Computers may lead to a “sterile learning environment” (Hooper, 1992: 26), one that is by turns uninteresting, antisocial, heartless, and restricted only to the technologically proficient (Stahl, Koschmann and Suthers, 2006). Palloff and Pratt (2007) make the observation that one of the reasons why online distance education programs may fail is because courses are not designed to have students collaborate. Simply having computers does not lead to collaboration; rather, it is the pedagogical way in which they are exploited that

results in learners working together collaboratively, and benefiting from this joint construction of knowledge (Lehtinen, Hakkarainen, Lipponen, Rahikainen and Muukkonen, 1999). Thus, any use of computers must be tied to sound pedagogical principles in order to maximize collaboration among learners (Lipponen, 2002).

2.4. Computer-mediated communication (CMC)

2.4.1 Overview

While many technologies have been researched in relation to language learning, computer-mediated communication or CMC technologies have garnered special attention from the language learning community. CMC technologies have seen the greatest number of studies dedicated to investigating them. It may even be said that it is the computer technology which has had the most significant influence on language teaching and learning (Warschauer, 1996). In and of itself, the use of computer-mediated communication does not entail language learning, but as observed by Beatty (2003: 9), “opportunities for learning are inherently present”. Murray (2000) asserted that this is mainly because CMC technologies have the highly desirable ability to provide language learners with the means to interact and communicate in the target language with others, including actual speakers of the target language. Web 2.0 technologies, which allow greater user control over Internet content, have further added to the applicability of computer-mediated communication to language learning, particularly the learning of writing.

2.4.2 Definition and characteristics of computer-mediated communication

Coined by Hiltz and Turoff (1978, cited in Murray, 2000), the term *computer-mediated communication* was meant to denote only computer conferencing, but other researchers have appropriated it to designate other forms of electronic communication as well, including chat and email. Initially, CMC was the transmission of short, simple messages, often a request for action from a programmer at a dumb terminal to an operator at another dumb terminal. The potential for communication among users logged on at the same time to the mainframe computer was quickly realized, and what was once a technology limited to facilitating work operations became a medium for communication (Murray, 2000). In broad terms, computer-mediated communication refers to any human communication that takes place via a computer; that is, people interacting through the medium of the computer (C. M. L. Ho, 2004). What CMC specifically entails, however, has expanded and grown parallel with technological innovation. CMC has shifted from “the exchange of textual messages between individuals typing on the keyboards and reading the screens of networked computers, to any digitally mediated communication” (Herring, 2008: xxxvi). What was once, furthermore, a primarily text-based means of communication has now evolved to allow the transmission of audiovisual information as well (C. M. L. Ho, 2004; Romiszowski and Mason, 2004). Warschauer and Healey (1998) characterized CMC as writing with computers, and treated it as being related to CALL, though distinct from it. CMC is positioned by Lamy and Hampel (2007) as being

within the integrative phase of CALL; they further differentiated between the use of CMC for language learning as opposed to more general education utilization and non-academic communication. Another category they discussed was socio-personal CMC, which correlates to Web 2.0 technologies; these will be discussed in a later section.

In general, CMC can be either *asynchronous*, where communication does not have to occur in real time, as in the case of chat, or *synchronous*, where communication is dependent on time and the location of the participants, such as with email (Warschauer and Healy, 1998; Ho, 2004). Each form has its own benefits and drawbacks, but there are also technologies where both forms of communication are possible (Romiszowski and Mason, 2004). Furthermore, as Murray (2000) pointed out, delays caused by one's typing speed and the responsiveness of one's computer and network access can result in asynchronism in those forms of CMC that allow for real-time interaction.

According to Lamy and Hampel (2007), teachers, learners, and researchers have been fascinated by CMC since at least 1989, when Mason and Kaye published *Mindweave*, a book that considered the place of this technology in various educational environments. In speaking about the history, present, and future of computer-mediated communication and its relation to education, Herring (2008: xxxv-xxxvi) noted:

By the turn of the millennium, only the most conservative holdouts could deny that a new digital era was at hand, and that the Internet and other new digital media had significantly altered communication, publication, and many other personal and professional landscapes. Today it has become imperative to understand and manage these effects: No one questions the legitimacy of conducting research on CMC anymore.

According to Warschauer (1997), CMC is characterized by five features: interactions that are computer-mediated and text-based; the possibility of communication within large groups of people; time and place independence of communication; the ability for exchanges to take place over long distances; and hypermedia links. It is posited that these features can facilitate collaboration in the learning of languages. Lamy and Hampel (2007) expressly distinguish between general CALL and CMC and online communication within the language learning context. CMC for language learning and teaching is also seen as distinct from computer-supported collaborative learning (CSCL)—a field of inquiry and practice established around how collaborative learning may be facilitated by computers—which is an affiliated paradigm, but one in which the language research community is underrepresented (Lamy and Hampel, 2007; Lipponen, 2002). CMC's potentially beneficial effects on language learning include allowing learners the chance to prepare for communication, go over past work that is preserved by the technology,

and communicate with one or more interlocutors, some of whom many be members of the target language community (Zhao, 2003). Davis and Chang (1994, cited in Singhal, 1997) discovered that engaging undergraduate students in Taiwan and the U.S. in email exchanges led to greater fluency and stronger organization in their writing. Warschauer (1997), in an overview of studies that looked at students of German who used electronic discussion, concluded that one consequence of their involvement with the technology was their use of more complex sentences, vocabulary items, and syntax. Chun (1994, cited in Kern, 1995) noticed a similar increase in the occurrence of complex sentences in students' writing after they utilized a synchronous network application named InterChange. These examples support the claim that technology positively affects L2 writing. Skinner and Austin (1999) found that a group of mixed-nationality, intermediate EFL students responded positively when they were allowed to engage in computer conferencing; their motivation increased, and as their confidence rose, they felt more like a member of a community and their writing skills broadened. Although these positive effects were not manifested in the actual classroom, the marked increase in motivation that the computer conferencing induced bodes well for further research and applications. With the advent of Web 2.0 technologies, furthermore, ever more opportunities to maximize language learning via computer-mediated communication have been made available.

2.4.3 Web 2.0 technologies

“Web 2.0” is a blanket term used to distinguish the aspects of the Internet resulting from technological developments that have made it more user-friendly, with sites that all but eliminate the need for specialized technical knowledge (Dudeney and Hockly, 2007; Godwin-Jones, 2003). This introduction of digital technologies that respond to client usage and needs (Motteram and Brown, 2009), and allow an unprecedented level of user interaction (Talandis, 2008) has led to a “participatory web” (Pankl and Ryan, 2008: 846). That is, users play a part in shaping the Internet through their very usage (Carney, 2009). Web 2.0 tools allow users to be more than mere consumers of content—they can also become creators.

Another aspect of Web 2.0 that makes it unique is how it allows users to develop online relationships. Advancements in Internet technology has spawned sites where users can make public the relationships they have with other users, called social network sites, with a popular example being Facebook (Boyd and Ellison, 2007). However, some blogging sites such as LiveJournal and Xanga have added social network features, and microblogging sites like Twitter are also classified as being a social network site, thus blurring the distinction between these technologies (Boyd and Ellison, 2007; Junco, Heiberger and Loken, 2011). They all fall under the category of social media, defined by Junco, Heiberger and Loken (2011: 1) as “a collection of Internet websites, services, and practices that support collaboration, community building, participation, and sharing”. It is precisely these

capacities which may be exploited to help teach writing and lower writing anxiety, though Thomas (2009) cautioned against viewing Web 2.0 technologies as a type of panacea, and to conceptualize them more as tools that may be employed in accordance with instructors' capabilities, learners' needs, and particular social contexts.

2.4.4 Benefits of computer-mediated communication

Technologies that fall within the purview of computer-mediated communication are varied, from computer conferencing to newer Web 2.0 technologies such as blogging and microblogging, but they all allow learners the opportunity to interact with others. This capability is beneficial to language learners in innumerable ways. For instance, CMC is postulated to help foster learner autonomy, support collaborative learning, and promote student engagement.

Autonomy is the ultimate goal of all education. To say a learner is successful is to admit that he/she is capable of translating knowledge of the subject matter into independent action within the discipline in question. The most widely-cited definition of learner autonomy is one offered in 1981 by Holec (Benson and Voller, 1997: 1), who considered it "the ability to take charge of one's own learning". In language learning, autonomy is an ideal that many educators strive to support in their learners for a number of reasons. The main impetus is because researchers have noted that the successful language learner and the autonomous learner share certain traits. Thus, it may be concluded that promoting autonomy may aid effective

acquisition of the target language (Balçikanlı, 2008). Learner autonomy may be promoted by allowing learners to make choices (Benson, 2001) and providing learners with numerous opportunities to utilize the target language in ways that do not lead to fixed, predictable outcomes (Fenner, 2000; Little, 1990). These are both possible with CMC. Peers can also be instrumental to the development of an individual's autonomy. Working collaboratively in a group with a clear predefined goal, and clear sense of one's role toward achieving that goal, can help to foster each group member's autonomy (Farrell and Jacobs, 2010). CMC provides an environment for collaboration with peers, as learners can share opinions and ideas at any place and any time, not just with one other person, but many people all at once (Reagin, 2004).

Computer-mediated communication allows learners to work together, or collaborate, in a context that is wholly different from other contexts (Lipponen, 2002; Littleton and Häkkinen, 1999). Computer technologies such as computer-mediated communication can take on different roles in supporting collaborative learning, including facilitating new or alternative methods of learning or making new types of learning possible (Hoppe, 2007). Advances in CMC, such as the creation of social network sites, have led to greater opportunities to promote group interaction and sharing, not only within classrooms, but with the outside world. These

opportunities provided by CMC may aid students when they are engaging in the writing process and help lower their writing anxiety.

Learning with computers also appears to be highly engaging for students (H. J. Becker, 2000). A number of definitions of student engagement exist in the literature, but succinctly, it may be viewed as the amount of attention and enthusiasm a student actively invests in learning (Chapman, 2003). Studies cited by Junco, Heiberger and Loken (2011) found that student engagement was positively correlated with the use of social network sites. Yang (2011) discovered that student engagement was improved with a number of participants at a Taiwanese university that utilized both synchronous and asynchronous CMC. Thus, engagement may be increased through the use of CMC, which should positively influence writing and reduce writing anxiety.

To conclude, CMC—a term that encompasses a number of different technologies, all of which have online interaction capability as the common denominator—is believed to have a positive influence on various aspects of language learning. A large body of research lends support to these claims, but as newer CMC technologies arise, such as those that fall under the designation of Web 2.0 technologies, additional research must be undertaken to determine if these purported positive effects still hold true.

2.5. Blogging

2.5.1 Overview

Blogging is cited as the quintessential example of the Web 2.0 Internet revolution, existing even before the creation of the actual term (Stauffer, 2008). It epitomizes much of what differentiates the second-generation Internet from the first—removing the necessity of technical expertise to publish online, thus shifting the ability to share content from experts to end-users, and facilitating greater participation and communication between producers and consumers of content (Warschauer, 2010). Among the Web 2.0 technologies, blogging is one of the best-researched in regards to its place in education (Motteram and Brown, 2009), particularly in foreign language education, though the literature is by no means complete (Carney, 2009). There are many benefits of blogging posited in the literature, particularly in terms of writing.

2.5.2 Definition, history, and characteristics of blogs

The word “blog” is a shortening of the term *weblogs*, and was so named by Barger on his website, Robot Wisdom, in 1997 (Bartlett-Bragg, 2003; Blood, 2000; Downes, 2004; Ward, 2004). Initially, blogs were sites that contained links to sites that the blog author, or blogger, deemed of interest, juxtaposed with his/her comments on them (Blood, 2000). The early blogs required a certain level of technical knowledge—namely, the ability to create a website—but with the introduction of simplified blogging software like Blogger, which eliminated almost all need for

technical skills, their major function underwent a dramatic shift (Blood, 2000; Ward, 2004). Whereas early blogs sported a heavy concentration of links paired with an individual blogger's commentary, the more user-friendly blogging platforms paved the way for bloggers with little to no web creation expertise to share their ideas online, without requiring them to refer to an existing site (Blood, 2000; Downes, 2004). Blogs are one of the easiest and most accessible modes for online publication, and they are often free to use (Dieu, 2004; Trafford, 2005). These two factors have led Warschauer (2010) to characterize them as a medium that has not only brought new significance to authorship, but has also created a greater number of authors than any other medium prior, and forces authors to give greater consideration to the audiences they may reach.

A blog can manifest itself in various forms. As a rhetorical genre, it shares similarities with editorials and opinion columns, as well as diaries and journals (Miller and Shepherd, 2004). It is very common for blogs to be referred to as online personal diaries or some equivalent, but they are more than just recounts of daily occurrences (Downes, 2004; Godwin-Jones, 2003). While personal blogs often contain diary-like information—some of it even of a private nature that in the past may have been kept only to be viewed privately or by trusted confidantes—the fact that blogs are posted online means that they can be read by a vast potential audience (Qian and Scott, 2007; Warschauer, 2010). Thus, though Davies and Merchant (2006)

concede that, organizationally at least, blogs are similar to diaries, they state unequivocally that equating them to online journals would be erroneous. An analysis undertaken by Herring, Schreidt, Bonus and Wright (2005) revealed that blogs, as a genre, reside in an intermediate space between more basic HTML documents and more dynamic forms of computer-mediated communication. Berendt and Navigli (2006) have concluded that blogs' greater emphasis on publication over discussion, as well as the strong feeling of community they foster, marks the blogosphere (the collective term for the blogging community) as a new medium for communication, one that has been embraced by a large number of people. In 2004, as many as three million Americans had begun blogs, with comparable numbers worldwide (Downes, 2004). By 2008, there were websites that reported over one hundred million blogs in the blogosphere (Armstrong and Retterer, 2008). Carney (2007) is of the opinion that blogs are a ubiquitous part of many people's lives, and this extends to students as well. That is, like all Web 2.0 technologies, blogs are already likely in use in learners' lives, so they are familiar tools which teachers can thus tap for their potential to enhance the educational experience (Reagin, 2004).

In its simplest manifestation, a blog is a website that is frequently and easily updated with posts that are arranged in reverse chronological order, with the latest entries appearing first (Ward, 2004). All blogs, regardless of their incarnation, share these key features of regular updating, reverse chronology, and entries that comprise

an aggregation of personal commentary and/or links to other sites on the Internet (Blood, 2000; Miller and Shepherd, 2004). As noted previously, blog entries can be made with relatively minimal effort, as little or no technical knowledge is necessary (Deng and Yuen, 2010). Another feature of this medium, seen as essential by most bloggers, is the ability for visitors to post comments in relation to the content of posts (Downes, 2004; Mishne and Glance, 2006; Stauffer, 2008). A large-scale study by Mishne and Glance (2006) revealed that a significant portion of the blogosphere is made up of comments to various posts—fully 30% of the volume of blog posts themselves. It is this capacity for visitors to a blog to leave their thoughts on the content that is shared that makes blogs, by their nature, communicative (Carney, 2009). All of these aforementioned characteristics, which are inherent to the medium of blogging, are seen as highly amenable to education, particularly language education.

Blogs can serve as both a medium for reflection, as well as interaction (Deng and Yuen, 2010). From the perspective of social constructivism, which views self-reflection and the ability to communicate with others as indispensable for the creation of knowledge, blogs can readily serve as sites for the cognitive conflicts that advance learning (S. Wang and Hsua, 2008). In conclusion, therefore, blogs would seem to be prime for appropriating for use in education, particularly language education, due to the salient features outlined above: the relative ease of creation

and maintenance of blogs, their interactivity, and their ability to be read by a prospective worldwide audience.

2.5.3 Proposed benefits of blogging in foreign language education

The educational possibilities afforded by blogging for education, and foreign language education in particular, have been touted and tested by a number of researchers, such as Campbell (2003), Johnson (2004), and Wu (2005). In education, there are three broad types of blogs that are used: tutor blogs, learner blogs, and class blogs. Tutor blogs are established by tutors for learners to serve a number of purposes, including being a repository for class information and learning resource links. Learner blogs are set up by individuals or small groups, and can be used for, among other goals, extra writing practice. The class blog is a joint effort, and can be utilized for a number of functions, such as facilitating extensions to classroom discussions (Campbell, 2003). More specifically, in a review of studies where blogging was used in an educational context, Sim and Hew (2010) discovered six major ways that blogs are used by teachers and learners: to log learning, to record personal daily events, to share feelings or emotions, to communicate with others, to serve as a tool for assessment, and to manage tasks.

From a teacher's perspective, having students maintain a blog can be helpful in a number of ways. At a practical level, blogs can serve as online bulletin boards where teachers can post notices, handouts, and other relevant materials for students to easily find, look at, and download (Chang, 2008; Iida, 2009; Wu, 2005). For

example, interactive exercises and sample written texts were made available via a tutor blog to participants researched by Arslan and Şahin-Kızıl (2010). Teachers can have easy, timely access to their learners' work, and may choose to respond to it, if appropriate, through the commenting feature of blogs. Students can see these comments immediately, and can reply to them, resulting in an ongoing dialogue about their work. Blogs can also help teachers mark learners' progress over time, both as individuals and as a group, allowing for more directed instructional intervention. By seeing what problems or difficulties are addressed or are evident on students' blogs, teachers can provide guidance as needed (Reagin, 2004; Trafford, 2005). Blogging helps to extend the act of learning to beyond the classroom, such as to prolong classroom discussions that may be cut short by time limitations (Stevens, Quintana, Zeinstejer, Sirk, Molero and Arena, 2008). For teachers, therefore, blogs can be an effective tool to add to their instructional repertoire.

Aside from the potential benefits for teachers, the posited uses and advantages of blogging for learners are manifold. Blogs are an easy way for learners to create and maintain an online publishing presence. Most blogging software is highly user-friendly, and can allow students to easily take ownership of their own cyberspace territory and to utilize it as a personalized base for communicating with others (Campbell, 2004; Wu, 2005). Blogging also makes it possible for learners to work at their own speed, as it can be done anytime and anywhere there is Internet

access (Ward, 2004). One study revealed how blogs were used according to personal convenience, with one participant composing blog entries piecemeal, and assembling the components later when it was more convenient, while other participants chose to blog as they were attending lectures (Trafford, 2005). Aside from supporting self-paced learning, blogging also frees learners from the burdens of face-to-face interaction. Like all computer-mediated communication, blogging can be a liberating experience, because it removes many of the interactive cues that may cause L2 learners difficulty in communicating, a phenomenon Ward (2004) labels *disinhibition*.

Other benefits of blogging put forth by researchers, and finding support in empirical research, include the assertions that by blogging, learners experience greater motivation to learn and overall better attitudes towards learning, can become more autonomous, become more skilled at collaborating with others, engage in more effective peer review, and improve their writing abilities (Carney, 2007; Reagin, 2004; Ward, 2004; Wu, 2005).

It has been proposed that blogs may help boost learners' motivation and improve their attitudes towards learning a foreign language. Many of the studies in the literature note greater motivation and better attitudes towards learning as a result of introducing blogging. At the end of the small-scale action research study conducted by Pinkman (2005), the learners revealed they greatly enjoyed, and were more motivated to learn the target language of English, due to the comments they

received from their peers and the instructor. Many of the learners of Spanish researched by Armstrong and Retterer (2008) revealed a partiality to the blogging format, with more than 76% saying they liked or really liked being able to use blogs. The Japanese EFL learners in Ballou, Holthouse, and Marlowe's (2011) research had highly positive attitudes regarding the use of blogging, with over 70% of the learners revealed they wanted to continue the activity in class and/or on their own.

Blogs are also thought to help enhance learner autonomy, or the ability of an individual to assume responsibility for his/her own education (Benson and Voller, 1997). In one of the earliest blogging studies, Pinkman (2005) conducted an action research study where blogging was introduced to Japanese EFL learners, with one of the aims being to determine if they would utilize them to reflect on their learning, and consequently, improve their learner autonomy. Although the research was of a small scale, with a final participant count of only ten, a number of points regarding blogging emerged, one of them being blogging's effect on learner autonomy. Eight of ten interviewed participants revealed they would continue blogging after the study's completion, which was concluded to be an optimistic indication of learners' independence. In another study by Fellner and Apple (2006), 21 learners took part in a weeklong intensive EFL course that required them to post entries to a class blog. Though the focus of their study was not learner autonomy, the researchers made the observation that learners chose to utilize vocabulary items noticed during class

activities of their own accord in their blog posts (i.e. they were not explicitly instructed to do so); this was interpreted as a sign of autonomous learning. Similarly, when Mynard (2007) undertook a small-scale study of blogging with 26 Japanese female learners of English, the participants spontaneously blogged about various aspects of their learning, even though the use of blogs was voluntary and primarily meant as a vehicle for them to reflect on their experiences during a semester spent abroad in the United Kingdom. That they chose to discuss their learning, according to the researcher, is a strong sign that they were becoming more autonomous learners. Iida (2009) also reported on a case study that also utilized learners of Japanese, where participants kept blogs to supplement their individual language learning efforts. At the end of a semester, students revealed that the blogs supported their learner autonomy, specifically because they could easily access their peers' blogs and other necessary language resources. The researcher also concluded that the blogs supported students reflecting on their own learning styles, a prerequisite for becoming more self-directed as a learner. In another study that investigated how blogging can serve to foster greater learner independence, Bhattacharya and Chauhan (2010: 382) utilized a working definition of learner autonomy that was not limited to solitary work, but also included "group coordination skills that could lead to independent action". The 35 participants in their study expressed enjoyment of such activities as peer teaching and peer evaluation, and 19% of the sample revealed that they had gone to peers for

assistance. The researchers' conclusion was that this interconnectivity between the participants led to greater learner autonomy, as well as the ability to make decisions on their own. It may be said, therefore, that blogging appears to help enhance learners' abilities to direct their own learning, and one way it does this is by allowing greater connectivity among learners. Thus, it would appear that an additional proposed aspect of learning that blogs can help with is fostering collaboration.

As blogs can be commented on, they open lines of communication between the blogger and visitors to the blog (Carney, 2009). Students can use them, therefore, to work on collaborative projects, such as joint writing activities (Chang, 2008). Jones and Nuhfer-Halten (2006) reported a large-scale project where different classes of learners of Spanish collaborated to create a Spanish-English departmental newspaper. The work required a high degree of cooperation among the learners—they used blogs in the researching and writing of the articles, as well as to respond to and revise their peers' writing. This project also points to another use for the medium of blogging, which is as a platform for the exchange of feedback during writing.

The capacity for facilitating interaction between readers and bloggers had led many researchers to suggest blogs as an alternative means of delivering both peer and teacher feedback (Dieu, 2004; Wu, 2006). In general, research has revealed overall positive learner perceptions of the use of blogs as a medium for peer and

teacher feedback. When Dippold (2009) investigated the extent to which blogs can support peer feedback with a group of second-year advanced German learners, at the study's conclusion, the participants revealed blogging was an enjoyable experience and that they appreciated receiving both peer and instructor feedback via their blogs. Similarly, the participants in Gedera's (2012) study were receptive to the peer feedback they received on their blogs, and found it to be conducive to the improvement of their writing skills. This was also noted when Kitchakarn (2013) investigated the use of blogs as a platform for peer feedback with Thai EFL learners. The learners had a positive attitude to using blogs to exchange peer feedback in small groups of five to six learners as they worked on writing paragraphs in English. A large percentage revealed they found peer feedback beneficial for learning to write, and statistical analysis found that their writing abilities showed significant improvement.

One of the chief skills blogging appears to be able to aid is writing. Although many popular blogging platforms allow users to post pictures, audio, and video clips, blogging is still predominantly a writing activity (Carney, 2007). Even when an instructor's aim in initiating blogging is not the improvement of writing skills, students may still believe their writing has improved. Pinkman's (2005) chief objective in using blogs with her Japanese learners was to explore its role in promoting learner

autonomy, yet it was discovered that learners also perceived improvement in their writing skills.

For the teaching and learning of writing specifically, blogs have a number of proposed benefits. One is that blogging facilitates writing as a process. Learners of Spanish studied by Jones and Nuhfer-Halten (2006) utilized blogs for each step of the writing process—to brainstorm initial ideas, to post drafts, to revise and edit according to peer and instructor feedback, and to publish the final product. What facilitated this process approach was the reverse chronology of the blogs, where the latest entries would appear before older posts, making it easy to recognize how far along a piece of writing was in the writing process.

An important aspect of blogging is that it gives access to a real audience. Blogs help to raise audience awareness (Lapp, Shea and Wolsey, 2010). Another associated benefit is that blogging often gives a genuine goal for writing. Stanford students who submitted their written pieces for a large-scale analysis of writing felt writing for their classes lacked a clear-cut purpose, since the only reader would be their professor, and were consequently less eager to complete their in-class writing assignments, though they voluntarily engaged in various other writing endeavors, including blogging (Thompson, 2009). Their opinions are echoed by the learners of Spanish studied by Lee (2010: 219), who “repeatedly remarked that they felt more compelled to write when they knew that their peers, rather than a sole instructor,

would read and respond to their postings”. Peers, however, are not the only added audience members when students begin to blog; as blogs are open to the public, there is a chance that people beyond the classroom will stumble upon and read what learners have posted. A German student who kept a blog in Ducate and Lomicka’s (2008) action research project had one of his posts commented on by a native speaker of German with no affiliation to his class. The researchers noted that the native speaker’s comment to the post was a source of target community cultural knowledge on a topic (German fraternities and sororities) that likely would never have emerged in an academic setting.

Blogging’s importance to foreign language learning is probably best encapsulated in the following quote by a fifth-grade blogger at a Quebec City school:

The blogs give us a chance to communicate between us and motivate us to write more. When we publish on our blog, people from the entire world can respond by using the comments link. This way, they can ask questions or simply tell us what they like. We can then know if people like what we write and this indicate[s to] us what to do better. By reading these comments, we can know our weaknesses and our talents. Blogging is an opportunity to exchange our point of view with the rest of the world not just people in our immediate environment (Downes, 2004: 14).

2.5.4 Proposed benefits of blogging for writing and writing anxiety

As noted, certain aspects of blogs have been identified as being potentially beneficial to the teaching and learning of writing. Studies have been undertaken to empirically observe whether or not the claimed advantages of blogging translate to better writing. Ward (2004), in an early and oft-cited study, related the outcomes of a blogging project carried out in an L2 writing class. It was found that many of the aspects that learners singled out as positive were the very same features asserted for blogging's usefulness—allowing writing to unfold as a process, making writing more communicative, and giving them a space they could manipulate as they chose. The majority of learners of Spanish in a 2005 study undertaken by Thorne, Weber, and Bensinger (Thorne and Payne, 2005) reported marked improvement in their writing over time. Changes in language were also observed, with the participants improving their spelling, use of accent marks, and knowledge of verbal conjugations. The participants' blogs displayed both academic and non-academic discourse features. In another study of the writing of learners of Spanish who were at an elementary proficiency level, it was found that following the implementation of blogging in their writing instruction, their writing improved in terms of verb tense and aspect accuracy, though the researchers cautioned against claiming a direct causal relationship (Armstrong and Retterer, 2008). A seven-day study conducted by Fellner and Apple (2006: 19) focused on blogging's effect on writing fluency, operationally defined as “the number of words produced in a single time-frame, together with lexical

frequency, irrespective of spelling and content, provided that the writer's meaning is readily understandable". Miyazoe and Anderson (2010) discovered greater sentence complexity, a higher vocabulary level, and a better reading level in their participants' blog posts.

Simsek (2009) studied the effect of in-class writing instruction versus blog-integrated writing instruction on the resultant writing performance of 70 undergraduate students at a Turkish university. It was found that those in the experimental group (i.e. those who had utilized blogging activities) showed greater improvement in their writing when their post-test results were compared to the control group, which had not used blogging.

The use of blogging to aid the development of academic writing skills was investigated by Bloch (2007). In this study, a generation 1.5 Somali student struggled with producing academically acceptable writing for his ESL composition course, despite having strong oral skills. By blogging, this student was able to develop stronger academic writing skills, using it as a medium to bridge his already adequate oral proficiency with his weaker writing ability. His posts evidenced numerous rhetorical strategies, which were transferable to later writing assignments.

Aside from providing a place to develop writing skills, blogging gives students a genuine purpose and audience for their writing, and enrolls them into the community of writing in the foreign language (Campbell, 2003; D. Zhang, 2009).

Knowing the reason for authoring a text and being aware that others are reading it has been deemed essential for good academic writing (Schweiker-Marra and Marra, 2000).

A dissertation by Kelley (2008) looked at the use of blogs and their effect on the affective state and academic writing of a group of undergraduates taking an advanced academic writing course at Central Michigan University in the United States. Though no concrete impact was found on the variables under investigation—writing apprehension, writing self-efficacy, and participants' sense of community—it was discovered that if improvements to their writing were detected by students, they attributed them to the use of the blogs. Blogging, furthermore, helps promote a friendly atmosphere among the members of the writing class.

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Bloggng research has also been undertaken in Thailand. Noytim (2010) implemented blogging with 20 female undergraduates studying English at Nakhon Pathom Rajabhat University. The aims of the research were to investigate how familiar the participants were with blogging, and their perceptions and attitudes towards blog usage. At the end of the study, the researcher noted many positive outcomes, including students perceiving the blog as a space for self-expression and practicing English reading and writing with. Due to the fact that the blogs were open to an audience beyond their teacher and classmates, some of the participants gave

extra attention to their writing, and utilized online resources to help revise their entries.

Aside from possibly improving writing skills, introduction of blogging may also help to reduce L2 writing anxiety in a number of ways. The ability to publish and share one's writing with others was found by Schweiker-Marra and Marra (2000) to lessen writing anxiety; bloggers have the potential to reach a large, genuine audience with their writing (Godwin-Jones, 2003; Ward, 2004). Writing anxiety is also linked to a lack of practice (Schweiker-Marra and Marra, 2000) and frequent pauses during the writing process (Abdel Latif, 2007). A blogger, however, can create an additional, personal space for writing on the Internet, giving them the capacity to work outside of the physical classroom, at their own pace (Ward, 2004).

The isolation L2 writers may feel when they are engaged in the writing process can also be alleviated with the introduction of blogging. In a study of blogging's implementation in a Spanish class, participants utilized their blogs for each step of the writing process, starting from brainstorming ideas, and received peer comments at each point (Z. Jones and Nuhfer-Halten, 2006). In this way, they were not alone as they proceeded through each step.

Blood (2000), though not speaking on L2 writing education, made the point that bloggers who blog daily will consequently gain greater confidence in their writing skills. Speaking of her own blogging experience, she noted that she saw increased

value in her own perspective as a result of carefully mulling over her posts. By blogging, L2 writers may experience this same result, and see greater value in their own writing, thus lowering their anxiety.

In conclusion, blogging is believed to hold much promise for the language learning classroom, particularly writing, and empirical studies have begun to back up these claims. However, as Carney (2009) pointed out, there are still many avenues left for research.

2.6. Microblogging

2.6.1 Overview

Microblogging is a variant of blogging that shares certain characteristics with its predecessor, but is in itself a distinct entity. A number of educators have called attention to its potential use in learning. Its enforced brevity and emphasis on speed and sharing point to its promise as an educational tool for the new mobile generation of learners. The level of connectivity it affords can help to expand the avenues of learning beyond the physical classroom, as well as promote the improvement of other crucial academic skills. A few researchers have begun investigating whether microblogging can benefit learners, and have had some promising results.

2.6.2 Definition and characteristics of microblogging

Microblogging refers to the act of posting a short text message, often from a mobile device, to disseminate one's thoughts and opinions, or to inform others

about one's present circumstances. The posted messages are displayed in reverse chronological order so readers can easily see which posts were made earlier (Java, Finin, Song and Tseng, 2007; Sinnappan and Zutshi, 2011a). Microblogging melds features of both blogging and social networking, but is in itself a distinct technology (Stevens, Quintana, Zeinstejer, Sirk, Molero and Arena, 2008). There are two main distinguishing features of microblogging, which differentiate it from standard or so-called *slow blogging* (Motteram and Brown, 2009). Firstly, the length of blog posts and microblog posts differ. As a consequence of word limits enforced by microblogging platforms, microblog posts are short and limited; for instance, Twitter, the most popular and the most studied microblogging site, allows only 140 characters per message (Sinnappan and Zutshi, 2011a). Microblogging is, furthermore, characterized by more frequent updating rates (Java, Finin, Song and Tseng, 2007), due to the technology's great mobility (Ebner, Lienhardt, Rohs and Meyer, 2010), as microblogging can be accomplished rapidly and easily via numerous channels, including email, web-based interfaces, and mobile phones (Gao, Luo and Zhang, 2012; Sinnappan and Zutshi, 2011b). Microblogging is often used for spontaneous communication, rather than the storing of information or engaging in more extensive discourse (Ebner and Schiefner, 2008; Sinnappan and Zutshi, 2011a). Typically, it is utilized to update others on one's daily activities, to initiate or continue conversations, and to share information such as news or websites of interest, with certain microblogging sites allowing users the option to track the updates of a

microblogger of interest (Java, Song, Finin, and Tseng, 2007). All of these activities can be achieved at a rate faster than other technologies, such as blogging.

According to Java, Song, Finin, and Tseng (2007), the enforced brevity of microblog messages and the ease of posting them means that users can generate content without the need to invest a great deal of time or deliberation. As the greatest appeal of microblogging sites such as Twitter is the immediacy with which information can be disseminated (Costa, Beham, Reinhardt and Sillaots, 2008), educational researchers have postulated that microblogging can facilitate fast, timely communication in academic settings.

A number of microblogging platforms exist (e.g. Jaiku, Edmondo, Pownce), but the leading service is Twitter (Costa, Beham, Reinhardt, and Sillaots, 2008). Though launched in 2006, Twitter achieved prominence after being the recipient of a prestigious award in 2007 (Java, Song, Finin, and Tseng, 2007; Halse and Mallinson, 2009). It is also the service of choice for a number of well-known microbloggers. Celebrities and U.S. presidential candidates—most famously, Barack Obama *tweeting* (the name given to the act of making posts, or *tweets*, on Twitter)—paved the way for its widespread adoption (Grosbeck and Holotescu, 2008; Stevens, 2008). Twitter's influence has grown to such a level that in 2013, the U.S. Stock Market lost \$136 billion dollars following a fake tweet from the Associated Press Twitter account that claimed U.S. President Obama had been injured in an explosion at the White House

(Fisher, 2013). The popularity of this particular microblogging platform is such that a large amount of the relevant literature equates microblogging with using Twitter (or tweeting), and for the purposes of this study, they will be treated as more or less equivalent activities.

Critics may wonder why microblogging is necessary if it is simply an offshoot of blogging. Ebner and Schiefner (2008) answered this question by making note of the parallel existence of email and text messages; that is, if one has email, why does one need text messages, which are a similar form of communication? Ebner and Maurer (2009: 769) rationalize the need for microblogging by noting that although blogging can indeed be used to send short, fast messages, “there is a need to publish sometimes even faster”, and give the example of encountering something of interest that one wants to share immediately. The immediacy of the microblog posts, as compared to blog posts, is one of the aspects that appeals to its adopters (Costa, Beham, Reinhardt and Sillaots, 2008). Microblogging, therefore, is the more appropriate medium for those who wish to quickly and succinctly share information, give updates on their current circumstances, or make announcements.

Carr (2010) discusses a number of Twitter’s strengths, which can be seen as the strong points of microblogging in general: it is a leading source for up-to-date news; it makes it easier to contact people outside one’s immediate social circle—strangers even—than other social networking sites; it allows immediate contact with

corporate or other public entities; its interface is very simple compared to other, similar services; and it serves as a direct information conduit, i.e. information comes directly from a source without being filtered. According to some educational experts, a number of these positive attributes can be carried over into the educational realm. This will be discussed in the following section.

2.6.3 Proposed educational benefits of microblogging

A number of proponents have championed the employment of microblogging for educational purposes, citing a number of possible uses and consequent benefits (Grosseck and Holotescu, 2008; Schweitzer, 2009). These range from using it as a tool for simple tasks such as informing students of schedule changes (Wheeler, 2009) to more comprehensive usage—facilitating collaborative writing, for instance (Parry, 2008; Wheeler, 2009). Some possible uses of microblogging for educational outcomes that have been proposed in the literature are discussed in the following sections.

At the most basic level, microblogging services such as Twitter can be used to deliver class-related information to all students quickly and promptly (List and Bryant, 2010; Wheeler, 2009). On the learner end, when completing assignments or other work, students can appeal for help whenever they are confronted with difficulties (List and Bryant, 2010). Furthermore, microblogging can be used by teachers to deliver timely responses to student queries (Dunlap and Lowenthal, 2009).

Microblogging can also be used as a tool for building community and cultivating interaction. Although microblogging platforms like Twitter have no direct means for users to interact in a manner comparable to blogging, where visitors can quickly and easily post comments on the content of various entries (Carney, 2009; Java, Finin, Song and Tseng, 2007), two-way communication is possible. Such communication is facilitated by the use of hashtags, such as the @ symbol, which an individual microblogger can use to address messages to others and respond directly to other users, thus allowing them to take part in ongoing conversations (Honeycutt and Herring, 2009; Java, Finin, Song and Tseng, 2007).

By microblogging, learners can interact and form communities not only with their classmates, but other people in the wider microblogosphere (Wheeler, 2009). Dunlap and Lowenthal (2009: 46) champion Twitter (and by extension, microblogging in general) as a tool that allows “the banter that helps us get to know each other, experience our personalities, and connect on a more emotional level”. They note that microblogging can be one tool to help establish social presence, or the ability to project one’s personal characteristics into an online space in such a manner as to be seen as a salient member of an online community. Creating and maintaining a social presence has been found to be connected to learner satisfaction. Microblogging can help to promote feelings of connectedness among members of a community, even when they do not meet in face-to-face settings (Tang and Austin, 2009), by providing

a channel for quick, timely communication. This channel can be utilized to accomplish all manner of tasks, from organizing meetings to offering moral support (Halse and Mallison, 2009), as seen in Rodems's (2011: 3) experiences with microblogging:

When I was struggling with meeting a deadline, when I was unsure about how to proceed with a part of my dissertation, when I needed support or a good kick-in-the-pants, the community was there.

Not only has it been suggested that microblogging can help support the building of community and encourage interaction, it has also been postulated to aid in fostering social proprioception. That is, being able to receive constant updates on the circumstances of acquaintances leads to a state that Thompson (2007) likens to the human body's ability to detect the spatial orientation of its limbs. It is believed that by microblogging, and following the messages of others, users can develop a greater awareness of and sensitivity to others' current circumstances. Elements of microbloggers' personalities may even be detectable in their tweets (Qiu, Lin, Ramsay and Yang, 2012). As such, deeper understanding of and respect for other learners, beyond the classroom, can be fostered, which is a key element in cooperative learning (Oxford, 1997).

It has also been suggested that microblogging can be used to support the teaching and learning of the writing skill. Parry (2008) recommends utilizing

microblogging to teach rule-based writing and collaborative writing, whereas Wheeler (2009) points out how the 140-character limit of Twitter is conducive to teaching summarizing. The necessary conciseness of the posts (for instance, in Twitter, only 140 characters are allowed) is believed to promote thinking over and reflecting on one's learning, i.e. metacognition, a key condition for deeper understanding. Metacognition can be defined as the practice of mulling over and reflecting on one's own learning (Educause Learning Initiative, 2007). Angelova (2001) points out that research has delineated a connection between writing performance and metacognitive knowledge. Successful writers have the ability to consciously control their own writing process, regulating their own behavior and cognition and other pertinent factors such as the environment (Hacker, Keener and Kircher, 2009). The brevity of microblogging may promote focused and prolonged thinking about a particular topic, enhancing a learner's metacognitive abilities (Educause Learning Initiative, 2007), and ultimately their writing skills.

How microblogging could positively influence the writing process, as well as writing anxiety, is discussed in greater detail in the ensuing section.

2.6.4 Proposed benefits of microblogging for writing and writing anxiety

There have been numerous recommendations for the use of microblogging in the classroom, but despite its theorized benefits, there is still a relative lack of empirical research. Only a few researchers have begun to determine the effectiveness of microblogging in learning in general, and in learning a second or

foreign language in particular. However, much of the research points towards rather positive outcomes if microblogging is utilized. For instance, in one of the few studies on microblogging in the realm of language learning undertaken by Borau, Ullrich, Feng, and Shen (2009), microblogging was implemented via Twitter with 98 EFL students at a Chinese university. The role of tweeting was to enhance their communicative and cultural competence in English. The researchers report that Twitter was able to aid in achievement of these goals and further, that the students participating in the study enjoyed using it, with one pleading for it not to be taken down, as they felt it was a space for them to express themselves. Holotescu and Grosseck (2009) investigated the use of the microblogging platform Cirip.ro, which was specifically created for use in education and business. Among the goals of their research were to determine if microblogging could be used for collaborative learning and whether it could promote lifelong learning. Several collaborative activities, which were to be completed with other Web 2.0 technologies, were carried out by 40 active participants over the course of the study. A friendly and welcoming camaraderie among the participants was observed. The participants of the study, furthermore, posted a little more than one thousand messages during the period of data collection, and close to one hundred after the official course the platform had been introduced in ended. This led the researchers to surmise that they had embraced the platform and thus, had adopted it as one of their learning tools. These studies point to the positive attitudes microblogging can engender in learners. What

these positive attitudes can help to accomplish, however, still remains a question, particularly when dealing with the writing process and writing anxiety. There is still very little research on the use of this technology in the teaching of writing, and few microblogging studies even address anxiety, let alone writing anxiety. Of the 21 studies conducted on the use of microblogging in education in the period from 2008 to 2011 that were examined by Gao, Luo, and Zhang (2012), none examined writing anxiety as a variable. Therefore, unlike blogging, many of the potential benefits of microblogging for the writing process and writing anxiety discussed in the following sections have not been proposed by the literature per se, but have been extrapolated from the ideas that have been put forth and the research that has been done.

Though only a few researchers thus far have examined it as an aid for writing, there are features of microblogging that would seem lend themselves to supporting the improvement of writing. Davis and Yin (2011) believed the 140-character limit imposed by the popular microblogging platform Twitter would be able to help reinforce the three primary tenets of business writing: brevity, clarity, and conciseness. This belief was their impetus for introducing microblogging to two intact classes of a business communication course being taught by the same instructor at a U.S. university. The researchers hypothesized that microblogging would support the improvement of the students' business writing skills, which would manifest in a

difference in the mean course grades of Twitter and non-Twitter users. After a semester, a statistically significant difference was found between the final course grades of participants who had used microblogs versus those who had not, with the former group receiving higher grades on average. The authors expressed optimism regarding the potential for microblogging as a tool to aid not only the development of business writing skills, but as one to help reduce writing anxiety as well, although they did not touch on this variable in their own research.

Microblogging also has great potential as a channel for the exchange of feedback at every stage of the writing process. When Dunlap and Lowenthal (2009) introduced microblogging via Twitter in their instructional design and technology classes, they found that students utilized the platform in numerous ways, including seeking immediate feedback from classmates and the instructor while completing assignments, as well as discussing personal, non-academic matters. Furthermore, there is already some evidence that the use of microblogging can effectively promote audience participation during presentations and lectures, as it increases the amount of resource sharing, as well as interactive questioning (Ebner, 2009; Elavsky, Mislán and Elavsky, 2011; Gao, Luo and Zhang, 2012). It may be contended that the relationship between lecturers or presenters and their audience parallels the relationship between a student writer and his/her readers. The typical dynamic of most large-lecture venues is unidirectional, with the speaker transmitting information

and possessing almost no means to access the thoughts and opinions of his/her audience members (Elavsky, Mislán and Elavsky, 2011). Similarly, the act of writing is often a solitary act, undertaken without timely external input (Hirvela, 1999). Lacking the benefit of reader comments, writers may develop a form of egocentrism, unable to view their work from the perspective of others (Tsui and Ng, 2000). The comparable nature of large lecture classrooms and/or presentations and the writing process would seem to indicate that the benefits microblogging has been shown to have on the former may be applicable to the latter. In a study of Ph.D candidates and researchers attending a summer school course, Twitter provided an immediate channel of communication during lectures and workshops (Costa, Beham, Reinhardt, and Sillaots, 2008). A large percentage of the participants expressed a favorable response to the use of Twitter to discuss topics brought up during the face-to-face course; overall, as channel for immediate communication, the platform was seen as interesting and was well-accepted. When List and Bryant (2010) investigated learners' microblog use (specifically Twitter), they wondered if students being able to communicate with their peers quickly would be beneficial to them, and if this speed would allow them to discuss academic matters more successfully. They concluded that the use of Twitter was helpful as an aid for peer tutoring and social interaction with an academic bent. This would seem to lend support to the use of microblogging as a channel for feedback exchange that is not constrained by time or place.

Aside from possibly being of benefit to the writing process as a channel for feedback, the introduction of microblogging may also help ease writing anxiety. Writing anxiety appears to have some connection with a fear of criticism, so if there is a way to boost student writers' comfort in regards to making their ideas public, their anxious feelings may be alleviated. After using microblogging, the learners in Vorvoreanu, Bowen, and Laux's (2012) study reported greater comfort with both participating in class and sharing opinions. Microblogging may thus be helpful to anxious student writers as a less-threatening means to foster participation and for sharing their ideas. Furthermore, the capacity for just-in-time communication that microblogging makes possible (Halse & Mallison, 2009) could allow L2 process to keep in constant contact with their peers and their teacher at every phase of the writing process. Knowing that help is just a click away may help reduce the sense of isolation that student writers often find anxiety-provoking. Grosseck and Holotescu (2008) also noted that microblog use raises users' confidence in themselves, which is an important factor in reducing writing anxiety.

Although little empirical data exist on how microblogging can support the writing process and alleviate writing anxiety, there appears to be great potential for this technology in regards to these two variables. The findings on the use of microblogging in education thus far would seem to demonstrate this technology's

positive influence on academic endeavors. Further research is required to add to, and refine, knowledge on the use of this platform.



Chapter 3

RESEARCH METHODOLOGY

3.1. Research design

This study was conducted to determine the effects of blogging and microblogging on Thai undergraduate learners' writing process and writing anxiety. The research design was a mixed-method design, one which incorporated both quantitative and qualitative data analysis methods. It is a research design for those who desire the "structured approach of statistics, but acknowledge that data from observations or interviews yield rich information" (Lichtman, 2010: 84). According to R. B. Johnson and Onwuegbuzie (2004), in undertaking mixed-method research, the key impetus in combining different research approaches is in order to find the best way to answer research questions. Researchers may choose to utilize a *mixed-method* design, where quantitative and qualitative approaches are mixed in or across stages of the research process, or a *mixed-model* design, where the study includes both quantitative and qualitative phases. The research questions one seeks to answer dictate the most effective design to be utilized. More precisely, according to Greene, Caracelli, and Graham (1989), mixed-method research allows researchers to achieve certain objectives with their data. Researchers may seek to corroborate results gained from different methods (i.e. triangulation), to clarify or augment results obtained from one method with another (i.e. complementarity), to utilize the results

attained from one method to inform aspects of another method, such as sampling and implementation (i.e. development), to recast research questions through the discovery of contradictions and paradoxes (i.e. initiation), or to expand, via different methods, the range of research (i.e. expansion).

Onwuegbuzie and Leech (2006) outlined a mixed-method research process model with eight steps. First, one or more research questions are set, which then leads to the consideration of the appropriateness of a mixed-research design. From there, either a mixed-method or mixed-model research design is selected. Then, data are gathered, analyzed, interpreted, and legitimated, and, if possible, conclusions are made, and a final report is authored.

The present study utilized a mixed-method design, as both quantitative and qualitative approaches were utilized at every stage of the research process. The data collected in this study were analyzed using both quantitative and qualitative data analysis methods. The following table is a summary of the data that were collected, the means by which they were gathered, and the methods by which they were analyzed.

Table 3.1 Summary of data, data collection, and data analysis methods

<i>Data</i>	<i>Data collection method</i>	<i>Data analysis method</i>
Writing process	<ul style="list-style-type: none"> - Blog posts and comments - Microblog posts - Blog/microblog use questionnaire - Blog/microblog use interview protocol 	<ul style="list-style-type: none"> - Descriptive statistics - Directed content analysis

Writing anxiety	<ul style="list-style-type: none"> - Blog posts and comments - Microblog posts - Blog/microblog use questionnaire - Blog/microblog use interview protocol - Second Language Writing Anxiety Inventory 	<ul style="list-style-type: none"> - Descriptive statistics - Directed content analysis - Independent samples t-test
Blog/microblog use	<ul style="list-style-type: none"> - Blog posts and comments - Microblog posts - Blog/microblog use questionnaire - Blog/microblog use interview protocol 	<ul style="list-style-type: none"> - Descriptive statistics - Directed content analysis

Information regarding the means by which data were collected will be discussed in a later section.

3.2. Population and sample

The population was all first-year undergraduate students at Chulalongkorn University, a public university in Bangkok, Thailand, who were taking the mandatory Experiential English I course, in the first semester of the academic year 2012. This included students from every faculty of the university, except the Faculty of Arts, which offers its students its own English courses. The population was predominantly Thai students of both genders who were at proficiency levels from lower-intermediate to advanced. On average, they were 18 to 20 years of age and had studied English for several years prior to entering the university.

Convenience sampling was employed for subject selection, as it was the most viable method for use with this population. The participants were two intact classes of Thai undergraduate EFL students from the Faculty of Engineering at Chulalongkorn University. One class was randomly chosen to use either blogging, while the other used microblogging. Initially, the blogging group (BG) had a total of 26 participants, 22 males and four females, with a mean age of 18.5 years. The final number of participants in the blogging group, used for data analysis purposes, was 24. The microblogging group (MG) initially had a total of 35 students, 26 males and nine females, also with a mean age of 18.5 years. The final microblogging group participant number was 30. It should be noted that the composition of the sample used in this study, while of a similar age and proficiency level as that of the population at large, differed significantly in terms of gender. The sample comprised mostly males, which is not representative of the gender ratio of the population as a whole.

3.3. Research context

The students were all enrolled in the required Experiential English I course, which was offered by the Chulalongkorn University Language Institute. The Experiential English I course utilized a commercial textbook, *English Unlimited* (Tilbury, Hendra, Rea and Clementson, 2011), and its emphasis was on the integration of reading, writing, speaking, and listening, though the midterm and final examinations were based largely on writing in genres specified by the course, as well

as reading, vocabulary, and grammar. The students' final grade in the course was calculated from their midterm and final examination scores (70%), their classwork and homework scores (10%), their class attendance (5%), and their individual project. The individual project, which was an assignment that lasted nearly the entire duration of the course, had two components: an essay on a personal role model (10%) and an oral presentation on the same topic (5%).

Both of the Experiential English I classes the participants were enrolled in was taught by the researcher, who hereafter may also be referred to as the researcher-instructor. The researcher-instructor's role was to act mainly as a guide and a facilitator, assisting students when asked or if they were observed to be having difficulty completing assignments.

The Experiential English I course ran for 18 weeks, with the ninth and eighteenth weeks reserved for the midterm and final examinations, respectively. The students and the researcher-instructor met in the physical classroom only three hours each week. The classroom for both groups of participants was equipped with 16 computers with Internet access, with a ratio of one computer to approximately two to three students. Many of the students also had cell phones, laptops, and tablet PCs that could connect wirelessly to personal or university-provided Internet services (i.e. they were WiFi capable). They could also access the Internet at computer workstations that were available throughout the university. In the

classroom, the researcher-instructor had a computer reserved specifically for her use which had Internet capability and was connected to an LCD projector, so that she could share what was on her screen with all the students.

During the course of the study, every measure was taken to ensure the protection of the participants' rights. The goals and objectives of the course remained unchanged, and the use of either blogging or microblogging was meant only to aid in the achievement of the course's aims (although to encourage its use, it was tied to classwork/homework portion of their final grade). That is, aside from the use of either blogging or microblogging, the two groups of participants had a similar academic experience to each other, and to other first-year Chulalongkorn University students studying in the Experiential English I course. Therefore, it was believed the participants were not disadvantaged academically. Furthermore, measures to maintain the participants' anonymity during data collection were also taken, to ensure their privacy and comfort in sharing information, though this affected the ability to track particular individuals during later data analysis.

3.4. Research procedures

The procedure used in conducting the study was divided into two phases. The first phase consisted of all preparatory measures for the research, which were the selection of the technological platforms, and the preparation and validation of all the research instruments. These research instruments were used to collect data on the participants' blog and microblog use, their writing process, and their writing

anxiety levels. The lesson plans for implementing the use of blogs and microblogs were also authored and examined by experts. The second phase of the research procedure was where blogging and microblogging were introduced into the Experiential English I course, and used by the participants as they completed writing assignments. This second phase was when data collection was undertaken. The activities undertaken in both of these phases are discussed in the following sections.

3.4.1 Selection of the technological platforms

An important aspect of this research was the selection of the blogging and microblogging platforms for use in the study. In evaluating the blogging service to be used, the researcher-instructor drew on existing literature on the use of blogging in education in general, and on language learning in particular. According to researchers, a blogging service for use in language learning has to be free of charge (A. Johnson, 2004); be relatively user-friendly (Pinkman, 2005); allow the creation of individual blogs (A. Johnson, 2004); allow customizable privacy settings, particularly for comments (Dudeney and Hockly, 2007); and permit the user to include and share other media, such as sound files or video files (Jones and Nuhfer-Halten, 2006). The chosen website, Wordpress (<http://www.wordpress.com>), met all these criteria. It was a user-friendly blogging platform that gave users access to a large community of bloggers who were also using the site, a community that, according to the website, includes CNN political analysts and *People* Magazine fashion reporters.

For the microblogging service, the researcher also consulted the literature in order to determine features that would aid in selecting the appropriate site for implementation with language learners. Specific criteria for the selection of a microblogging service have not been outlined as comprehensively as those for blogging. In one study, Grosseck and Holotescu (2011) undertook an analysis of the microblogging platform *cirip.eu* to determine its strengths, weaknesses, and associated opportunities and threats, but that was in relation to its adoption for the use of teachers' personal and professional development. While their conclusions helped to inform the selection of the microblogging platform for use in this study to an extent, since it has been argued that microblogging is a variant of blogging (Ebner and Schiefner, 2008), insofar as they were relevant, the selection criteria for blogging were also consulted when reviewing the available microblogging sites. Using similar criteria for selecting the microblogging site also helped to retain a measure of parallelism between the two groups of participants.

Eventually, though there were a number of microblogging sites available, the site that was deemed appropriate for the study was Twitter (<http://www.twitter.com>). Like Wordpress, it was free of charge, had a high degree of user-friendliness, allowed the creation and customization of individual accounts, and permitted the sharing of different forms of media aside from text. Twitter also allows users to restrict who can access their posts, allowing a degree of privacy if so desired (Rockinson-Szapkiw and

Szapkiw, 2011). Furthermore, Twitter is the predominant microblogging site, both for real-world use and investigation in the educational realm (Halse and Mallinson, 2009; Junco, Elavsky and Heiberger, 2013). By using Twitter, the participants would be able to reach a wide potential audience.

Once the platforms were selected, so that they would be ready for the first official face-to-face class, the researcher-instructor established appropriate blogging and microblogging accounts. A central blog, or tutor blog (Campbell, 2003), was set up on the Wordpress site. The central blog was where the addresses to every one of the blogging group's (BG) blogs were listed, so the participants could easily access their classmates' blogs. The researcher also utilized the central blog to post occasional class-related announcements. For the microblogging group (MG), the researcher-instructor registered for an account on Twitter. This account served similar functions to the central blog, in that it was used as an easy reference for participants when searching for their classmates' Twitter accounts. It was the account that all the participants followed, and it was the one they addressed when they wished to interact online directly with the researcher-instructor.

3.4.2 Research instrument preparation and validation

Concurrent with the establishment of the technological aspects of the study, research instruments for collecting pertinent data were prepared. The research instruments that needed to be authored and/or validated by experts were: a questionnaire to examine participants' perceptions of the use of blogging and

microblogging; a semi-structured retrospective interview protocol used to probe for more details on participants' use of these technologies, their writing process, and their writing anxiety; the Second Language Writing Anxiety Inventory (SLWAI), developed by Cheng (2004), which was used to establish their writing anxiety levels; and a rubric used to score the participants' blog and microblog posts. The selection and/or development, as well as the validation of these instruments are discussed in the subsequent sections.

3.4.2.1 Blogging/microblogging use questionnaire

The questionnaire to elicit information on participants' use of blogging or microblogging, as well as information regarding their writing process, was authored by the researcher based on reviewed literature and the research objectives. The questionnaire for both the BG and the MG were identical, except for the technology they elicited information on. That is, there was a single questionnaire with two parallel versions (See Appendix A and Appendix B for the English and Thai versions of the blogging/microblogging use questionnaire).

The questionnaire consisted of two items that asked respondents to provide their gender and age, one open-ended item that asked them to provide details about how they completed writing assignments in English, and seven items to determine their experience with the use of either blogging or microblogging. One item had 20 sub-items for respondents to rate on a scale of 5 (very useful) to 1 (not at all useful) their perceived usefulness of blogs or microblogs for various purposes,

such as “Using blogs to express my opinion on my classmates’ English writing assignments.” The two other items asked the participants to outline any difficulties they encountered with the technologies, as well as their opinion on whether they would suggest the continued use of blogging or microblogging. Both of these items were open-ended, and had space for respondents to provide additional information (with the item regarding difficulties also having three potential problems as choices for the participants to check).

The questionnaire had both English and Thai versions. The Thai version of the questionnaire was so the participants would have greater ease in completing it. Both versions were submitted to three experts in EFL education and research, who were also bilingual speakers of Thai and English, for validation. The experts examined the questionnaire to determine if it fit with the research objectives that had been set, and also helped to pinpoint any errors or ambiguities between the two versions. The content validity of the questionnaire was calculated using the Item-Objective Congruence Index, or IOC (Rovinelli and Hambleton, 1977). The researcher provided each expert with an evaluation form with aspects of the questionnaire for them to consider and score as being not appropriate (-1) or appropriate (1). A score of 0 would indicate the expert was uncertain of the questionnaire’s appropriateness in regards to the cited aspect. For each item, a calculated IOC value of less than 0.50

would indicate the need for revision. Additional space was also provided for the experts' comments and suggestions.

Once the experts' evaluation forms were collected and looked over, it was found that the mean IOC values for all the items were in the acceptable range of 0.50 to 1.00, meaning the experts had deemed the questionnaire items suitable and consistent with the research objectives that had been set. There were, however, several suggested revisions put forth by the experts. The key revision to the questionnaire advised by the experts was to separate the single item "Using blogs for other uses besides learning e.g. communicating with friends" into several smaller questions, each eliciting a respondent's perception of the usefulness of the particular technology on a certain function. The experts also suggested adding choices for respondents to check for the item "What are some problems you encountered while using blogs?". Other minor revisions included a slight adjustment to the instructions and the format of the questionnaire, i.e. the numbering of the questionnaire. The experts also suggested minor linguistic revisions for the Thai version of the questionnaire for better comprehensibility.

3.4.2.2 Blog/microblog use interview protocol

In order to obtain additional information regarding participants' use of the technologies under investigation, along with information on their writing process and writing anxiety levels, an interview protocol was established. It was a semi-structured retrospective interview protocol, consisting of eight open-ended questions. There

were two items to elicit information on respondents' writing anxiety and writing process, five items to obtain information regarding blog/microblog use, and one item that asked respondents for any additional information they might wish to provide.

Similar to the blog/microblog use questionnaire, there were both Thai and English versions of the interview protocol (See Appendix C and Appendix D for the English and Thai versions of the interview protocols for both groups). Both versions were given to three bilingual experts in EFL education and research for validation. The calculated IOC values were all in the acceptable range of 0.50 to 1, which established that the protocol met the set research objectives. However, the experts all agreed, in light of the research questions, additional questions regarding respondents' ideas on how to improve blog/microblog use were necessary. Two items were subsequently added to the initial protocol, which had six items. These additional items were, "What do you think are the advantages of blogs/microblogs?" and "What do you think are the disadvantages of blogs/microblogs?" The language of the Thai version of the interview protocol also underwent some minor revision in accordance with the experts' suggestions, to improve clarity. All of the suggested changes were used to revise the questionnaire.

3.4.2.3 Second Language Writing Anxiety Inventory

A review of related literature revealed the Second Language Writing Anxiety Inventory (SLWAI), authored by Cheng (2004) to be an appropriate instrument for

measuring the writing anxiety levels of participants of this study. The researcher sought permission to use the instrument from its creator, which was granted.

To ensure the respondents' greatest comfort, the 22 items of the original inventory were translated into Thai by the researcher. The instructions included to guide respondents in completing the inventory were also translated. The translated inventory and instructions, as well as the original English version, were given to three bilingual experts to examine. Calculated IOC values for the inventory were all in the range of 0.50 to 1, which meant the instrument aligned with the research objectives that had been set. The experts, however, made some suggestions regarding the translation. Their comments were used to revise the translation of the instrument and ensure it did not deviate greatly from the original language of Cheng's (2004) inventory (See Appendix E and Appendix F for the English version of the SLWAI and its Thai translation).

3.4.2.4 Blog/microblog post grading rubric

In order to track participants' progress through the writing process, the researcher authored a rubric in order to score different stages of it: pre-writing, drafting, revision and editing, and publishing. For each stage, learners were to be scored on bands from 4 (exemplary work) to 0 (missing or incomplete work).

The calculated IOC values fell below the acceptable range of 0.50 to 1, indicating that it did not fit with the set research objectives. No single component of

the rubric was pinpointed as being problematic, however. Instead, two of the three experts consulted regarding the blog/microblog post grading rubric expressed reservations over the use of it entirely. They questioned the rationale behind its purpose, particularly if one of the research objectives was to reduce the participants' writing anxiety. They believed assigning a score to the formative process of writing a text would be counterproductive to this goal. However, rather than immediately eliminating this instrument, they suggested determining reactions to it from actual learners. The remaining expert questioned the feasibility and fairness of scoring each stage of the writing process, as each stage may be achieved in an idiosyncratic, but acceptable, manner by each individual student writer. She also suggested eliciting reactions to the rubric from learners, which could be achieved via a pilot study. The pilot study that was undertaken is detailed in a later section.

3.4.2.5 Lesson plans

As noted previously, it was of utmost importance to ensure the Experiential English I experience of the participants of this study was not adversely affected (or, at the very least, saw only a minor adverse effect) by the use of the investigated technologies. With this goal in mind, the researcher-instructor attempted to structure their lessons to deviate as little as possible from those they would have experienced in a non-blogging/non-microblogging context. Though blog and microblog use was mandatory, (in light of the results of the pilot study discussed in the following section), and made up part of the classwork/homework portion of the participants'

overall course grade, when constructing the lesson plans, technology use was incorporated in a supplementary capacity into the writing assignments the participants were given. That is, the use of both blogs and microblogs was meant to aid the writing process, by giving the student writers additional time and space in which to work.

The instruction, as outlined by the lesson plans, covered ten face-to-face class hours, as well as online learning on the blogs or microblogs (the duration of which was determined by the individual participants), and utilized the units in the textbook *English Unlimited* (Tilbury, Hendra, Rea and Clementson, 2011) mandated by the course. Seven of the lesson plans dealt with writing assignments whose parameters were mandated by the course: two narrative texts, two emails recommending travel destinations, and two argumentative texts; the remaining three lesson plans touched on the essay component of the individual project (See Appendix G for a sample lesson plan on narrative writing, along with associated documents: a supplementary handout and the writing assignment criteria).

The majority of the writing assignments lasted one week, but time spent online was dependent on the participants. It was up to the individual participant how he/she would allocate his/her time to completing each of the assignments. The only writing assignment that required a longer time period was the essay portion of the

individual project, as this particular assignment comprised a larger proportion of the overall final course grade.

Once they had been completed, all of the lesson plans were given to three experts with experience in teaching Experiential English I to evaluate. The experts determined if the lessons were in line with both the course objectives and the set research objectives. The calculated IOC values were within the satisfactory range of 0.50 to 1, indicating the lesson plans aligned with the research objectives of the study. The experts also found the lesson plans were appropriate in regards to the course objectives. Their key concerns were the time allotment given to some of the face-to-face class activities; two of the experts did not feel the time designated for particular activities, such as discussion of the parts of an email, were adequate. The time allotment for the activities was adjusted in accordance to the experts' suggestions before they were implemented in the pilot study, which is discussed in the following section.

3.5. Pilot study

Once technological platforms had been chosen and prepared, and the research instruments and lesson plans had been submitted to experts and edited according to their comments and suggestions, in order to determine if there were any other problematic issues with them, a pilot study was conducted with students who had similar characteristics with the research participants. The pilot study participants were two groups of first-year students studying in the Faculty of Engineering, whose

age and gender distribution mirrored the research participants. One group was randomly chosen to use blogging in the completion of their writing assignments, while the other group utilized microblogging. Following a week of preliminary usage meant to familiarize the participants with the technologies (where no data were collected), they used these technologies for a total of ten weeks. The edited research instruments were administered to the pilot study participants in the same sequence planned for the actual study.

Using information gathered from the ten-week pilot study, several decisions were made. The first major decision was to make the use of both technologies wholly mandatory for the duration of the data collection period. During the pilot study, the use of the technologies was initially on a voluntary basis. Writing as a process, as well as the principles of peer feedback, were introduced and encouraged, but were not confined solely to the online realm. Participants were required to complete each stage of the writing process for each writing assignment (with each stage being scored), as well as engage in peer feedback, but it was never explicitly stated that they must do so through the technology that had been introduced to them. This was in line with arguments that giving a grade to blogging—which, the researcher contends, can be expanded to the notion of grading any Web 2.0 technology use—defeats the purpose of introducing such components to the teaching and learning process (Wrede, 2003). However, at the end of six weeks of

data collection, very few posts had been made by only a select number of individuals in both participant groups. Thus, though there was a strong desire to allow participants as much as freedom and flexibility as possible when using blogging or microblogging, it was believed that if they were to reap the full benefits of these two technologies, they would need a greater incentive to utilize them. Therefore, in the last four weeks of the pilot study's data collection period, after consulting with an experienced EFL educator and researcher, the decision was made to make the use of the technologies a required component of the remaining graded writing assignment. While the researcher acknowledges that obligating students to use the technologies was not ideal, it was believed that even such mandated use could serve to be advantageous to students, an argument put forth by Ward (2004) when he discussed his own use of "coerced-blogging". Junco, Elavsky and Heiberger (2013) concluded that making Twitter use obligatory is necessary if one wishes to see positive educational outcomes. Their research showed the participants who were mandated to use Twitter benefited in ways that those who voluntarily utilized the platform were not.

Once blogging/microblogging use was made mandatory in the seventh week of the pilot study, for convenience in assigning scores, the researcher-instructor utilized a posting schedule that required students to complete one step of the writing process every week while they worked on their final writing assignment, their

individual project (though there was no requirement that they, for example, only draft during the week allotted to drafting; if the student wished to revise and edit as well, they could do so). Thus, each week during the last four weeks of the pilot study data collection period, participants were asked to post on their blogs or microblogs regarding their writing progress for the individual project, which was the last graded writing assignment for the course, as well as to comment on at least one other classmate's work. The researcher-instructor supplied weekly prompts as suggestions for what they could post about, as additional scaffolding for the assignment, but the student writers were free to write above and beyond the given prompts. Weekly deadlines were established so students knew by when they had to post, but additional voluntary use was also highly encouraged. This new procedure saw an increase in posts on the blogs and microblogs, and subjectively, a few individual participants made known to the researcher-instructor during face-to-face class sessions and during the follow-up interviews that they preferred it to the use of the rubric. Therefore, it was determined that mandatory blogging/microblogging use seemed more effective than the rubric in regulating participants' technology use.

Therefore, the second decision reached by the conclusion of the pilot study was to discard the rubric used to grade each stage of the writing process. Members of both groups of pilot study participants made known they disliked the use of the rubric (some by approaching the researcher-instructor in person), and several

individuals expressed apprehension over its implementation, feeling it added an extra aspect of which they had to be mindful. As two of the three experts who had validated the rubric had also put forth concerns over its use, and had advised that learners' opinions be sought and taken into consideration, the rubric was not included in the actual research study.

3.6. Blog/microblog-assisted writing instructional design

With the data collection instruments and lesson plans created and validated, the writing instruction was designed. The instruction included both the technological aspect of establishing and familiarizing the participants with the technologies to be utilized, as well as the implementation of the technologies, in accordance with the lesson plans.

3.6.1 Blog/microblog account establishment and familiarization

A week prior to the data collection period (the third week of the semester), during a face-to-face class session, all the participants were administered the Thai version of the SLWAI to determine their baseline writing anxiety level. Then, the concepts of writing as a process and peer feedback were introduced and discussed. Following this, blogging was introduced to the BG, while microblogging was introduced to the MG.

In introducing these two technologies, the researcher broadly followed the four steps outlined by Dudeney and Hockly (2007) on how to begin the use of blogs

with learners. The four steps are: establishing a sample blog, establishing student blogs, posting entries to and visiting blogs, and encouraging further blogging. As noted previously, the researcher had created a central class blog on the Wordpress site for the BG, and an account on Twitter for all the MG participants to follow. These were shown to students in the face-to-face class session where the concepts of blogging/microblogging were introduced as examples of the technologies, before they themselves signed up for their own blogging or microblogging accounts.

Before the participants registered for their own accounts, the researcher-instructor facilitated a class discussion regarding online safety, privacy, and etiquette issues. This was to make certain that every student was aware of what was deemed safe, appropriate online behavior. To ensure their privacy was protected, students were highly encouraged to choose screen names (online pseudonyms) that would ensure their anonymity from all but the researcher-instructor and those they chose to share their information with. They were also shown how to set privacy protocols, so they could restrict access to their posts, if they so desired (these options are available for both Wordpress and Twitter). However, none of the students chose to make their accounts private; for the duration of the study, anyone with Internet access was able to access their posts.

Then, the researcher demonstrated how to set up accounts on either the blogging website for the BG, or the microblogging website for the MG. During the

demonstration, the researcher had some of the participants follow along with the procedure on the available classroom computers or their own personal WiFi capable devices. The inexact ratio of computers to participants required some to establish their accounts outside the physical classroom, but guidelines were made available to them via the class blog for the BG, and a link to a file uploaded to a file-sharing site for the MG.

Once the participants' accounts were established, the researcher-instructor demonstrated common functions on the blogging and microblogging platforms. For the BG, the functionality of the individual blogs was explored briefly—specifically, how to make blog posts and post comments on the content of blog posts—before students were encouraged to try posting and commenting on each other's blogs, though they were not required to do so immediately. The researcher-instructor collected the addresses of each class member's blog and posted it to the central class blog for easy reference. For the MG, the participants were shown how to be notified whenever the researcher-instructor or their classmates posted to the site, an action known as “following” a user. The researcher-instructor also demonstrated how to post to Twitter, how to shorten links so they could be posted within the platform's 140-character limit, and how to use the @ symbol to direct posts to a particular user. The participants were given suggestions for their initial posts to the site: they could post a shortened link to their favorite song and/or reveal what

aspect of learning English they found most difficult. Additionally, they were shown how to upload files to file-sharing sites such as Google Documents (<http://docs.google.com>) or Dropbox (<http://www.dropbox.com>), which would allow them to disseminate their work or any information that exceeded the 140-character limitation of the Twitter platform.

After their blog/microblog accounts had been set up, the students were asked to familiarize themselves with their particular platform for one week. That is, they were encouraged to explore and experiment with the functionality of either the blogging or microblogging website. Any posts made by them at that time were not counted towards their grade or included in data collection. Ideas for how to use blogging or microblogging were discussed in class and the use of the platforms for the week, though not required, was highly encouraged, with potential uses discussed in class. As it was posited that utilizing the technologies would provide a channel for student writers to exchange feedback which could, ultimately, lessen their anxiety, the participants were instructed to post any comments, questions, or concerns that arose during the course of the week, and to respond to the posts made by their peers. The researcher-instructor monitored the participants' use, and occasionally, engaged with them on the platforms, but in a highly informal manner, and mainly to address problems or difficulties that were brought up that were either directed toward hers or which other classmates had not responded to.

3.6.2 Implementation of blogs/microblogs

The mandatory use of blogging and microblogging followed the week immediately after the ungraded familiarization period. Technology use lasted ten weeks, i.e. from the completion of the trial period to a few weeks before the end of the course. The lesson plans for this period covered seven writing assignments, as mandated by the course. The participants were required to utilize either blogging or microblogging to complete these seven writing assignments that were covered by the lesson plans. In the guidelines for each of the writing assignments, they were asked to post to their blogs on Wordpress or to their microblogs on Twitter a certain number of times during the duration of each assignment, usually a week (except for the essay, which was to be completed towards the end of the semester).

Participants were required to make at least five posts per week, that is, ostensibly, one post for the pre-writing stage, one post for the drafting stage, one post for the revision and editing stage, one post for the publishing stage, and one post that offered feedback on a peer's writing. However, the participants were given the flexibility to make more posts if they deemed it be necessary. Similar to the final four weeks of the pilot study, the researcher-instructor provided prompts that could be used by the participants if so desired. Again, it was reiterated to the student writers that they should utilize the platforms to voice any concerns or difficulties that arose during the completion of their various writing assignments. Their use of the technologies counted towards the classwork and homework portion of their final

grade, but they were only given a completion score. Additional blogging and microblogging for both personal and other class-related issues was also explicitly encouraged.

3.6.3 Conclusion of mandatory blog/microblog use

One week after the conclusion of the ten-week mandatory technology use period, the participants completed a questionnaire regarding their use of the technology that had been introduced to them, as well as their writing process. There was also another administration of the SLWAI. Two weeks after this, the SLWAI was administered for the final time (this was to determine if there any residual effects from the use of the technologies).

The retrospective semi-structured interviews were also begun at this time. Three participants were randomly selected from each group and contacted so that interviews could be conducted with them to gather information on how they used their particular technology, and their opinions regarding its strengths and weaknesses. Interview questions also targeted their personal writing process and their anxiety in regards to writing in English. The interviews were conducted in Thai, so the respondents would have a maximum level of comfort.

3.7. Data collection

The data collection portion of the research study was carried out during ten weeks of one semester during the academic year 2012. The data collection took

place concurrently with the blog/microblog-assisted instruction. The schedule of the entire study was as follows:

Week	Classroom/Online Activities	Research Notes
1	- Blog/microblog account set-up - Overview and discussion of writing process and peer feedback	- 1 st administration of SLWAI - Familiarization period/voluntary technology use (1 week)
2	Individual project	- 1 st week of data collection
3	Individual project	
4	Writing assignment 1 – Email writing	
5	Writing assignment 2 – Email writing	
6	Writing assignment 3 – Narrative writing	
7	Writing assignment 4 – Narrative writing	
8	Writing assignment 5 - Argumentative writing	
9	Writing assignment 6 - Argumentative writing	
10	Individual project	
11	Individual project	- Final week of data collection - Distribution of questionnaire - 2 nd administration of SLWAI
12- onwards	—	- 3 rd administration of SLWAI - Interviews conducted

3.8. Data analysis

As this study used a mixed-method research design, data analysis comprised both quantitative and qualitative measures. Both quantitative and qualitative data on the participants' blogging and microblogging use, their writing process, and their writing anxiety levels were collected. For triangulation purposes, the findings from

the different analytical methods were examined in tandem, and used to support and inform each other when answering the six research questions.

In analyzing data qualitatively, different approaches may be utilized. One method is content analysis. Content analysis is a qualitative analytical process that makes use of inductive and deductive reasoning to summarize raw data into categories or themes (Y. Zhang and Wildemuth, 2009). According to Hsieh and Shannon (2005), qualitative content analysis may be approached in three ways. Each of these approaches to content analysis is utilized to achieve different purposes. Conventional qualitative analysis refers to a process whereby the raw data directly yields the coding categories. This form of qualitative analysis is used for grounded theory development. Summative content analysis is used to inductively investigate the usage of words and/or indicators by first counting them, then searching for themes and latent meanings. Directed content analysis, on the other hand, is where a theory or pertinent research findings inform the initial coding process. Additional themes may emerge from the raw data during later, in-depth analysis. Directed content analysis is often used to validate or expand a theory or theoretical framework.

Directed content analysis was utilized in this study with the collected blog and microblog posts, as well as associated comments and documents that were generated over the ten weeks of the technology use period. It was also used with

data gathered via the questionnaire and interviews. As noted, directed content analysis draws on existing concepts in the literature, operationalizes them, and then utilizes them as categories during the initial coding of the collected data. Following this, new codes are generated for data that cannot be categorized with the initial coding scheme (Hsieh and Shannon, 2005). Greater detail on how the data were examined through this form of analysis is provided in a later section.

In effect, the research questions set by this study fell into two broad categories, according to what was being investigated: either the effects of the investigated technologies on the participants' writing process in English or the effects of these technologies on their writing anxiety levels. The different data analysis techniques employed to answer the research questions will, thus, be discussed in relation to the pertinent set of research questions.

3.8.1 Data analysis methods for technologies' effects on participants' writing process

The first set of research questions dealt with how the implemented technologies affected the participants' writing process:

Research Question 1: What are the effects of blogging on Thai undergraduate learners' English writing process?

Research Question 2: What are the effects of microblogging on Thai undergraduate learners' English writing process?

Research Question 3: What are the differences between the effects of blogging and microblogging on Thai undergraduate learners' writing process?

To answer this set of research questions, the main data of interest were the BG's blog posts and comments, and the MG's microblog posts and associated documents. These were quantitatively analyzed using descriptive statistics (calculating means and determining frequency), and also qualitatively analyzed through directed content analysis. Data from the questionnaires and interviews were also subjected to directed content analysis to provide additional information regarding participants' writing process, and the effects of blogging and microblogging on it.

3.8.1.1 Preparation of the data for directed content analysis

Once all the data generated by both groups had been collected, the first step was to read through and categorize the data generated by the BG and MG as either content or comments. This was due to the differing format of blogs and microblogs. Blogs have a clearly demarcated space for visitors to leave comments on the posts that are shared, i.e. the content posted by the participant is clearly separated from the comments made by the people who read the blog (For a screenshot of a blog post and its comments section, see Appendix H). A microblog, contrarily, does not allow one to view posts made by an individual microblogger concurrently with what visitors to the microblog have shared. Instead, a microblog is a list, or continuous feed, of a single individual's posts, presented in reverse

chronological order (For a screenshot of an individual's microblog feed with personal details removed for anonymity, see Appendix I). Thus, two different coding schemes had to be utilized in order to determine how the implemented technologies affected participants' writing process: one for data categorized as *content* and one for data categorized as *comments*.

The categorization *content* referred to any post, or portion of a post, that addressed the student writer's own written text, writing process, writing anxiety, or other issues related to the self. That is, any information a student writer posted regarding his/her own work and/or him/herself was categorized as content. For the BG, this encompassed blog posts that consisted, for instance, of a draft of a writing assignment that may have been paired with personal remarks. It was similar for the MG, except that the character limit of the Twitter platform did not allow participants to post their full drafts, only links to files uploaded to file-sharing sites. The following examples, taken from one participant's blog post and another's microblog post, respectively, and edited only for length, were categorized as *content*.

[Draft of text] I hope s.o. think similar as me [S6]

my editing please check and recommend [Link to draft of text] [S40]

Any post, or portion of a post, that addressed a peer's text was categorized as *comments*. Comments were made by both the participants and the researcher-

instructor. Once the data had been designated as either *content* or *comments*, directed content analysis was undertaken.

3.8.1.2 Content coding scheme

In order to analyze all the data categorized as *content*, the researcher utilized concepts in the existing literature on the writing process and writing anxiety. The data were read through by the researcher for references to different stages of the writing process, such as pre-writing and drafting, as well as activities associated with the various stages, such as brainstorming ideas in the pre-writing stage, and checking the organization of one's text in the revision and editing stage (Flower and Hayes, 1981; Hyland, 2003). References to writing or assignment-related issues were also noted. Posts which were excluded from further analysis were those that did not reveal information regarding the participants' writing process, such as the ones made regarding an oral presentation the participants were required to do, that discussed non-academic topics of individual interest, or that dealt with technical aspects of the platform or other websites that were utilized.

Once the researcher had read through and coded all the data, another colleague who had experience both with teaching the Experiential English I course and research in language instruction was given a random sample of the data the researcher had categorized to examine in order to determine if her analysis was appropriate. Points of contention were discussed and the categorization was adjusted to yield a final set of data that constituted *content*.

The same coding scheme was used to analyze the data drawn from the open-ended questions in the questionnaire and the interviews. Both of these research instruments sought to elicit information regarding the participants' writing process, both before and after technology use. All of the data were then analyzed alongside the comments.

3.8.1.3 Comments coding scheme

To code the data categorized as *comments*, which were the messages posted by participants regarding their peers' texts via the blogs or microblogs, the researcher relied on an existing rubric as the coding scheme. It was developed by Liu and Sadler (2003) and served as a framework for directed content analysis of the participants' comments. The rubric classifies each comment on the basis of three elements: the nature of the comment (whether it is revision-oriented or not), text areas it focuses on (global or local), and its discourse function. The initial discourse functions included in the rubric were evaluation, suggestion, clarification, and alteration. An *evaluation* comment remarks on the quality of a text; a *suggestion* comment offers a recommendation for change; a *clarification* comment seeks explanation and justification regarding some aspect of the text, and an *alteration* comment outlines particular changes for the writer. For this study, after an initial coding of the data, the decision was made to include an additional discourse function category to allow for classification of more socially-oriented comments. This additional category is called *social interaction*, and is similar to Liou and Peng's (2009) *chatting*, which they

defined as comments that do not address aspects of writing. However, *social interaction* in the present research also included non-revision-oriented comments that had indirect links to writing. That is, comments that did not directly discuss writing, but included a mention of some aspect of the written text in question, were coded as social interaction. For instance, the following comment on a blog (presented in its unedited form) was categorized as social interaction:

Looking forward to reading the remaining part ;) [S3]

As can be seen, the student writer is discussing a component of his peer's text, but the comment serves to foster solidarity rather than inspire revision. Thus, this comment was related to an aspect of writing, and so could not be categorized as "chatting" as defined by Liou and Peng (2009), but could also not be categorized as an evaluation, suggestion, clarification, or alteration, as per Liu and Sadler's (2003) framework.

Within this framework, the unit of analysis was sentential meaningful units. When a particular posted comment had a complex meaning, the meaningful units contained within the comment were the focus of the analysis. This can be seen in the following example posted on a blog, where the sentential meaningful units have been numbered:

(1) That is interesting structure! (2) I don't know that this structure need to be like an essay or not, but others make an introduction by pursuing readers

and get them into the story. (3) Though, this is good one, but try to check your grammar and words. (4) You're a business man! [S11]

Though this was a single posted comment, it contains four sentential meaningful units. Contained within this single comment are components that can be categorized as either revision-oriented and non-revision-oriented. These components can be categorized further as having the discourse functions of evaluation, suggestion, and social interaction. “That is interesting structure” was an evaluation comment, “I don’t know that this structure need to be like an essay or not, but others make an introduction by pursuing readers and get them into the story. Though, this is good one, but try to check your grammar and words” was a suggestion comment, and “You’re a business man” was a comment that was meant to promote social interaction. The comment also covered both global and local areas of the text. The first sentential meaningful unit focused on the global issue of the text’s structure, while the second specifically pinpointed the introduction portion of the text.

Comments were left by both participants and the researcher-instructor. Since the main focus of the analysis were the participants’ comments, the researcher-instructor tried to minimize the amount of feedback she gave, in order to promote more student-student interaction. Though the coding scheme used was drawn from research on peer feedback, using it to code teacher feedback in the present study

may be justified by the fact that the researcher-instructor utilized the feedback patterns that had been introduced and discussed during the peer review training with the participants, i.e. the researcher-instructor strove to provide feedback in a similar manner to the participants.

Excluded from further analyses were comments made by the student writers themselves. These were replies the participants made in response to comments left by visitors. In the following example from the BG, S10 was the student writer who made the original post on which S9 commented. Thus, S10's comment was not included in the statistical analysis. Both of these comments are presented unedited.

I like it. Good job. but it very many word.I sleep before finish read eiei. lorlen na ja 555 [S9]

I slept before I finished the writing too. [S10]

Also omitted from the data analysis were comments made to posts that did not discuss one of the seven writing assignments, as the focus of this research was on blogging and microblogging's effect on the participants' writing process. For example, one participant made the following comment on his fellow student writer's blog post:

PS. I like your head picture. ^^ [S15]

The participant wanted to express his admiration for the student writer's choice of a profile picture (pictures associated with user names on the blogging platform). As can

be seen, there was no mention of the student writer's text or any other mention of writing. Comments such as these did not undergo further data analysis.

3.8.1.4 Comparison of content and comments

Once the data had been categorized as content or comments, and were coded according to the aforementioned coding schemes to examine the effects of blogging or microblogging had on the participants' writing process, the revisions undertaken by the student writers were compared against the revision-oriented comments they received, as was done in Liu and Sadler's (2003) study. That is, the researcher attempted to determine if the feedback the participants received led to discernible changes in their texts. The focus was first on the feedback received from peers, followed by that given by the researcher-instructor. A fellow Experiential English I instructor with experience in research utilized this same procedure with a random sample of the data to determine if the conclusions the researcher had drawn were sound. Disagreements over the coding were discussed and changes were made accordingly.

3.8.2 Data analysis methods for technologies' effects on participants' writing anxiety

The second set of research questions focused on how the introduction of blogging and microblogging affected the participants' writing anxiety.

Research Question 4: What are the effects of blogging on Thai undergraduate learners' writing anxiety?

Research Question 5: What are the effects of microblogging on Thai undergraduate learners' writing anxiety?

Research Question 6: What are the differences between the effects of blogging and microblogging on Thai undergraduate learners' writing anxiety?

The main data that were used to determine the effects of blogging and microblogging on the participants' levels of writing anxiety were the participants' responses to the three administrations of the Second Language Writing Anxiety Inventory (Cheng, 2004). To ensure participants' ease with revealing information about their writing anxiety, their anonymity was maintained throughout the three administrations of the SLWAI. The advantage of this is that it was believed to support greater honesty from the participants. However, this anonymity had an effect on the statistical measures that could be employed for data analysis, in that an individual participant's writing anxiety level could not be traced among the three administrations. Therefore, no conclusions could be drawn about specific individuals over the course of the study.

For data analysis, the participants' responses on the three administrations of the SLWAI were tallied (with negatively worded items reversed scored). Then, descriptive statistical analyses were run on these scores. In order to answer sixth research question, which focused on comparing the effects of blogs versus microblogs, an independent samples t-test was also run.

The statistical data were examined alongside data gleaned from the participants' blog and Twitter posts, as well as from the interviews and the open-ended questions on the blog/microblog use questionnaire. Using the content coding scheme detailed in a previous section, these data were examined for any references to factors that would indicate writing anxiety. Using Cheng's (2004) multidimensional conceptualization of this affective factor as a basis for this portion of the analysis, the researcher read through the data to see if the participants had mentioned any maladjusted writing behaviors, increase in physiological arousal, or dysfunctional thoughts. Once the data had been coded by the researcher-instructor, an Experiential English I instructor with experience in research examined a random sample of coded data, in order to determine if the categorization was appropriate. Any points of disagreement were discussed, and alterations were made accordingly.

Chapter 4

RESULTS

Data analysis was undertaken to determine the effects of blogging and microblogging on Thai undergraduate learners' English writing process and their writing anxiety levels. More specifically, the data were analyzed to answer the research questions that had been set: 1) What are the effects of blogging on Thai EFL learners' English writing process?; 2) What are the effects of microblogging on Thai EFL learners' English writing process?; 3) What are the differences between the effects of blogging and microblogging on Thai undergraduate learners' writing process?; 4) What are the effects of blogging on Thai EFL learners' writing anxiety?; 5) What are the effects of microblogging on Thai EFL learners' writing anxiety?; and 6) What are the differences between the effects of blogging and microblogging on Thai undergraduate learners' writing anxiety? The findings are presented in the following sections.

4.1. The effects of blogging on participants' writing process

In order to answer the first research question, which was “What are the effects of blogging on Thai EFL learners' English writing process?”, the researcher attempted to discern how the introduction of blogging affected the writing process of the participants of the blogging group (BG). To do this, the participants' blog posts, as well as associated comments made over the ten weeks of the data collection

period, were collected, statistically analyzed, and examined in relation to information obtained from the blogging use questionnaire and semi-structured interviews with randomly-selected participants.

4.1.1 BG participants' writing process prior to blog use

Data taken from the blogging use questionnaire and information from the interview participants served to provide information regarding the BG participants' writing process prior to the use of blogging. Through directed content analysis with the content coding scheme described in Chapter 3, it was discovered that the BG participants initially approached writing assignments in a highly idiosyncratic manner. Analysis of the data revealed several different strategies that were employed by the participants when completing English writing assignments: writing simultaneously in Thai and English, writing initial drafts in Thai before translating them, writing a single draft in English, adopting key words or phrases from online sources, and adopting key words or phrases from other sources. These strategies will be expanded on in the following sections.

4.1.1.1 Writing simultaneously in Thai and English

The most common strategy used to complete a writing assignment for this group of student writers was to compose their texts using a combination of Thai and English. There were 13 respondents to the questionnaire, or 54.17%, who revealed that this was the main strategy they used to accomplish their writing assignments in

English. One anonymous questionnaire respondent stated that when a writing assignment was given (translated from Thai):

I write and translate at the same time. I'll think of a sentence, write it out, and then translate it. Or sometimes, I will think of a sentence, think of the translation, and then write it out.

Other respondents made similar declarations regarding their primary strategy for completing English writing assignments (translated from Thai):

I just write in English, but for the vocabulary words I'm not sure about or don't know, I will write them in Thai.

I'll write it in English, except for the words I don't know, which I write in Thai.

I translate them later.

I write it [the assignment] in Thai and translate the parts I know while I am writing.

Two of the interview participants also utilized this strategy:

Well, I try to write it in English, but if there are things I cannot think of or I don't know how to say in English, I will just write it out in Thai. Usually it will just be the vocabulary words. I don't really know a lot of vocabulary words in English. [S6]

I'll compose it in English, except for the words or sentences I don't know. I just write it in Thai if I don't know. But if I remember or can think of it, I just translate it. [S21]

As can be seen, most of the BG participants concurrently employed both English and Thai when working on their writing assignments. Thai was often used when their English knowledge was insufficient, such as when they did not know, or were uncertain of, particular vocabulary items.

4.1.1.2 Writing initial drafts in Thai before translating them

Another strategy utilized by the participants was to generate initial drafts completely in Thai, as opposed to using a combination of English and Thai. Then, before the assignment deadline, these drafts would be translated into English and handed in. This was the approach taken by the following anonymous questionnaire respondents (translated from Thai):

I write it in Thai first because that is easier. I search for words and some phrases in English to use later.

My primary way of doing writing assignments is that I'll think of the Thai words first. I'll write it all out in Thai. Then, I'll translate it to English.

I think of it in Thai. I make notes in Thai or write it in Thai. I translate it to English later.

There were seven (29.17%) respondents overall who mentioned that they wrote their first drafts in Thai and then translated these texts to English. This strategy and the following strategy of writing only one draft in English were the most commonly used strategies after crafting a text using both Thai and English concurrently.

4.1.1.3 Writing a single draft in English

There were seven respondents (29.17%) who revealed that they used the strategy of composing only a single text directly in English, and handing this in on the assignment deadline. One questionnaire respondent anonymously characterized her approach to English writing assignments as (translated from Thai):

Kind of like a high school student. There is no drafting whatsoever. I'll complete the work only a few days before the deadline. I'll hand in that text as the final one.

Another questionnaire respondent described his approach in a similar fashion (translated from Thai):

Honestly, I only do the assignment two or three days before the day we have to hand it in. I write it and I might look it over a little, but I just give in that text.

One interviewed participant also stated that composing only a single draft was his primary strategy when given an English writing assignment (translated from Thai):

When I get an assignment, I just start writing it. I write it in English. I don't really write more than one draft. Sometimes, I might look over the text and make some changes, but I just write it once. [S15]

Composing only one draft and handing it in as the final one was an approach used as often as writing a text in Thai and then translating it, with the same number of respondents stating that this is how they completed their writing assignments.

4.1.1.4 Adopting key words or phrases from online sources

The approach of utilizing online search engines to seek out key words or phrases in English that could be adopted was used in conjunction with one of the other three aforementioned approaches. Three questionnaire respondents (12.5%) revealed that they used this strategy. Two of the respondents said they used this strategy as they composed their texts simultaneously in Thai and English.

I try to search for sentences that are better to use on Google.

I search about the topic on the Internet. I find the interesting words or popular words about the topic that I can use in my own work.

The last respondent said he used this strategy to aid translation of his initial drafts from Thai to English.

I find the words I want with Google. Or sometimes I read what other people wrote in English and I find the sentences that I can use.

4.1.1.5 Adopting key words or phrases from other sources

Similar to the abovementioned approach, this approach was also used in conjunction with another composing strategy. Only 2 respondents (8.33%) mentioned using this approach. One used key words and phrases from English movies or books to help him as he composed a single text in English.

I try to remember the words I have heard in movies or read in books, so that my writing will seem normal to readers.

The other respondent said she used English books as her source of key words and phrases to adopt for use in her texts as well. Her primary strategies for completing writing assignments was to either write simultaneously in Thai and English, or to write a single draft in English.

When I do the writing assignment, I use the words I have seen in English books that I have read.

4.1.2 Commonalities in BG participants' writing process prior to blog use

As can be seen, the participants had varied approaches for completing English writing assignments. Most of the participants had one strategy that they utilized almost exclusively, but there were several who mentioned using more than one strategy. There were also five respondents who used a combination of strategies, such as composing one text in English and using online resources to aid in this endeavor.

Despite the rather varied approaches adopted by the student writers, certain shared elements were detected. These were the frequent use of Thai, the marked lack of systematic action, and little to no mention of editing or revising the written work. More broadly, there was a tendency to see writing as the production of at most one to two texts (often one in Thai, and the other, translated into English) to be handed in on a teacher-assigned deadline. Several student writers confessed to working on assignments only a few days prior to, or shortly before, the due date, as can be seen in these anonymous responses taken from the blog use questionnaire (translated from Thai):

I usually do the assignment one or two days before the deadline.

I really only do the writing when the deadline gets closer.

Frankly, I will write it the day before the writing assignment needs to be sent in.

One of the interviewed participants indirectly revealed that he, too, often left assignment completion very close to the due date:

I don't really have time to check the text before I give it in. [S21]

Related to the procrastination associated with completing writing assignments was the admission from many of the participants that they often did not look over their texts before submitting them. There was also no mention of seeking others' input regarding their writing. If any revision was referred to, it was self-initiated and

accomplished using sources such as Internet search engines or English books. When blogging was implemented, however, it appeared to influence these aforementioned aspects of the student writers' approach to completing writing assignments. Overall, there appeared to be three key effects from the use of blogging: less use of Thai during the participants' writing process, greater awareness of the recursive nature of writing, and reduced isolation during the writing process.

4.1.3 Reduction of the use of Thai during the writing process

One apparent effect of the introduction of blogging was the seeming reduction of the use of Thai during the student writers' writing process. As was seen, before blogs were used, two of the primary strategies the student writers in this group used to complete writing assignments was to either write simultaneously in Thai and English, or to write out initial drafts in Thai and then translate them. Thus, they were using a fair amount of Thai during their writing process. Once blogging was introduced, however, the texts the student writers composed were wholly in English. There were, however, some instances of Thai and transliterated Thai used in the comments. The following are examples of comments that contained Thai and transliterated Thai (their uses are underlined):

What makes you choose พี่เดอะสตาร์ as your role model? [S14]

but it very many word.I sleep before finish read eiej [S9]

The underlined phrase in the first comment is a reference to a Thai pop singer, who was the subject of the blog post, while the underlined transliterated Thai part in the second comment is the onomatopoeic rendering of a laugh.

4.1.4 Increased awareness of writing as a recursive process

Another one of the apparent effects of the introduction of blogging was a greater awareness of writing as a process. Blogging appeared to aid the student writers in seeing writing as not a single, isolated activity, but as an action that is iterative and requires constant revisiting of ideas and concepts.

The participants' apparent recursive progression through the writing process was evidenced by explicitly-mentioned writing process stages in the title and content of the blog posts, as well as references to activities that were undertaken during the various stages. Titles given to blog posts that appeared to indicate recursive progression through the writing process included the following examples, which are presented unedited:

Drafting(Chemical Lab Escaping) [S25]

Individual Project : 3rd Editting [S19]

[Revising&Editing] How awful it is...escape from hazardous gas. [S9]

The inclusion of the names of different stages of the writing process, such as drafting, in the blog post titles seemed to point to an awareness of these stages. The content of some of the blog posts also reflected this recognition, as the student writers

posted information regarding their progress on their various writing assignments. For instance, there would be mention of a stage of the writing process in the content of the blog post, such as pre-writing, drafting, and publishing in the following examples:

Here is pre-writing for e-mail introduce to Bangkok [S10]

The third drafting has been finish. [S25]

If there is no more editing, this post will be a publishing. [S18]

Additionally, some of the student writers included short commentary regarding the activities they had undertaken, or were undertaking, with their texts. One student writer posted an outline with this brief commentary:

Here is the new one that was fixed. [S10]

Another student writer detailed what he had already done to his text, which was an email recommending a travel destination, and what his plans for it were (his commentary is presented unedited, with / indicating a line break):

After I have revised it and edited it agin it become more like a paragraph. /

The only last thing I will do is count the words and remove some sentences that is too much. / This E-Mail will finish soon. [S25]

Aside from the recursive progression as seen in the blog posts, information provided directly by the participants also indicated a greater awareness of writing as a process. The ability to focus on writing as a process was explicitly noted in a

response on the blogging use questionnaire to a question regarding the rationale for whether the technology should be implemented again (translated from Thai):

It can be used to practice writing systematically.

Another anonymous respondent noted that the technology should be used again for a reason which, while not explicitly addressing blogs' ability to encourage writing as a process, indirectly addresses this point (translated from Thai):

It's very useful. I especially like when we update. Like when we have to post four times, so we can show our progress, and the teacher can check our work. There's clear evidence of our work.

This response mentions how blogs can be used as a way to display student writers' work at every stage of the writing process; specifically, what progress has been made from stage to stage. That blogs encourage the revisiting and reworking of ideas was also indirectly mentioned in several of the anonymous responses to the question of whether blog use should be continued, as in the following examples (translated from Thai):

It lets the teacher suggest ways to fix our work before we hand it in.

It makes it easier to fix our work. There's an opportunity to improve our work when the teacher comments on the blog post.

We can show our work to our teacher, friends, and other people so they can give us advice and presents points for improvement.

The BG's blog posts and responses on the questionnaire would seem to indicate a greater awareness of writing as a recursive process.

4.1.5 Decreased isolation within the writing process

Aside from the seeming reduction in the use of Thai while completing English writing assignments and the apparent increased awareness of writing as a process, blogging also seemed to affect the participants' writing process in that the use of blogs permitted the writing process to become a more public activity, as well as one that involved more than one person. As noted, initially, the student writers' writing process was a rather solitary activity, lacking input from outside human sources. Through blogs, the participants were able to access their peers' work, as well as receive feedback on texts they shared online from visitors to their blog. This decreased isolation appeared to have some effect on the student writers' writing process.

4.1.5.1 Access to peers' texts

The blogs made all the student writers' texts available for viewing. One interview participant specifically noted that being able to view others' work was a very useful aspect of the blogging technology, since he could compare his ideas to those of his classmates. Furthermore, he could check to see if he had understood the writing assignments in a similar manner to them. Specifically, he revealed (translated from Thai):

Sometimes I need to see my friends' work to improve my own. [S6]

This sentiment was echoed in some of the anonymous responses on the questionnaire regarding whether blog use should be continued, such as the following (translated from Thai):

We can go onto the blogs and see other people's work.

We can use them to look at our friends' work, to see the way to do it correctly.

Blogs allow us to follow our friends' progress in their work and give them advice on it.

The last response in particular touched on not only how blogs allowed student writers the benefit of seeing their friends' texts, but also addressed another key advantage of blogs: student writers were able to share their own texts, and get outside insights from visitors via the blogs' commenting feature.

4.1.5.2 Feedback on texts

A key aspect of the blogs that appeared to have an effect on the student writers' writing process was the ability to give and receive feedback on their texts, via the blogging platform's commenting function. Data analysis revealed that over the duration of the mandatory blog use period, a total of 310 comments were posted to the participants' blogs, which was approximately 2.08 comments per post. It should be noted that no comments were recorded during the first two weeks of data collection, and only two comments were made during the last two weeks. Nearly all

of the comments (99.35%) were made during a four-week period. This period coincided with when the researcher-instructor explicitly instructed the participants to comment on their peers' work. Previously, only making blog posts was mandatory.

Of the total number of comments, 101 were generated by the participants in response to blog posts made by their peers. There were 62, or 61.39%, of these comments that could be categorized as peer feedback. That is, these comments were posted to initiate dialogue regarding a peer's written text.

The 62 peer feedback comments yielded 148 sentential meaningful units, which served as the units of analysis, as per Liu and Sadler's (2003) framework. These units of analysis were not all complete sentences. In fact, it was noted that some did not end with conventional punctuation, but contained, or were concluded with, emoticons, or short symbols used to represent emotions in text-based environments (Derks, Bos and von Grumbkow, 2007). For convenience, these units of analysis were treated as, and will be referred to in subsequent discussion as, "comments". That is, though a singular comment left at a particular time by a peer in response to a student writer's blog post may have contained several sentential meaningful units, for the purposes of analysis, each unit was analyzed, and will be discussed, as a single comment.

Through directed content analysis utilizing the coding scheme detailed in Chapter 3, it was discovered that only 50 of the 148 comments, or 33.78%, were

revision-oriented comments. The remaining 98 comments, or 66.21%, were non-revision-oriented. That is, there was a larger percentage of comments that could not be interpreted as pointing out potential problems and/or potential aspects for textual change or modification to the student writer.

Further analysis revealed the discourse function of the different types of comments. The comments encompassed only the five discourse functions of the initial coding scheme. Thus, no new coding categories were required. The majority of the comments were evaluation comments, followed by social interaction comments, suggestion comments, alteration comments, and clarification comments. The text areas the comments delineated were also determined. Analysis revealed that over half of the peer feedback comments focused on global issues within the text. The table below summarizes these data.

Table 4.1 Summary of nature, discourse function, and text focus area of peer-generated comments for the BG

<i>Revision Nature</i>		<i>Revision-oriented</i>		<i>Non-revision-oriented</i>	
		33.78% (50)		66.21% (98)	
<i>Discourse Function</i>	<i>Evaluation</i>	<i>Suggestion</i>	<i>Clarification</i>	<i>Alteration</i>	<i>Social interaction</i>
	42.57% (63)	19.59% (29)	5.41% (8)	6.76% (10)	25% (37)
<i>Text Area of Focus</i>		<i>Global</i>		<i>Local</i>	
		68.24%		30.41%	

	(101)	(45)
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The type of comments that was left most often was evaluative in nature. Following Liou and Peng (2009), complimentary evaluative comments were coded as non-revision-oriented, while critical evaluative comments were categorized as revision-oriented. More in-depth analysis revealed that only six of the 63 evaluative comments, or merely 9.52%, were negative, or critical, evaluations. The remaining 57 evaluation comments, or 90.48%, were compliments regarding the peer's work. The following are examples of a complimentary evaluative comment and a critical evaluative comment, respectively:

It is good work and good content. [S16]

But I think the passage is a little bit too long. [S12]

The comments were also categorized according to the areas of the text they made reference to. Comments that focused on issues such as punctuation, word choice, or grammar were coded as local comments, while those that drew attention to broader issues such as the organization of the text, the purpose of the text, or the potential readers of the text, were coded as global comments. Of all 148 comments, 101 or 68.24% were global comments, while 45 or 30.41% focused on local copy-editing issues.

Categorization of the comments made by the researcher-instructor was also undertaken. These were coded using the comments coding scheme outlined in Chapter 3. As noted, although the scheme was developed from literature on peer feedback, its use with teacher feedback here would seem appropriate because the feedback patterns utilized were those that had been introduced and discussed during the peer review training. That is, the researcher-instructor attempted to provide feedback in a comparable manner to the student writers.

Analysis of the researcher-instructor's 131 comments showed that 107 addressed the seven writing assignments; these were the ones that were subjected to further analysis. These 107 comments yielded 358 sentential meaningful units, which were treated as single comments, similar to how the peer feedback comments were analyzed. The nature, discourse function, and text areas these 358 comments focused on are summarized in the following table.

Table 4.2 Summary of nature, discourse function, and text focus area of researcher-instructor-generated comments for the BG

<i>Revision Nature</i>		<i>Revision-oriented</i>		<i>Non-revision-oriented</i>	
		81.56% (292)		18.44% (66)	
<i>Discourse Function</i>	<i>Evaluation</i>	<i>Suggestion</i>	<i>Clarification</i>	<i>Alteration</i>	<i>Social interaction</i>
	8.10% (29)	8.94% (32)	12.85% (46)	67.32% (241)	2.79% (10)
<i>Text Area of Focus</i>		<i>Global</i>		<i>Local</i>	

	27.65%	72.35%
	(99)	(259)

As can be seen, the researcher-instructor's feedback, in general, was different from the peer feedback, because the majority of the her comments were revision-oriented, had the discourse function of evaluation, and touched on local issues in the student writers' texts.

The data from the comments was examined alongside the data from the interviews and questionnaires. All the interviewed participants noted the value of receiving feedback, with a great focus on the comments left by the teacher, as seen in the following interview excerpt (translated from Thai):

If there is a problem with my writing when I share it on the blog, the teacher can point it out immediately. [S15]

The responses on the questionnaire given to participants following the blog use period indicated the beneficial aspects of feedback from both the teacher and peers. The use of blogs to receive comments on written work from the teacher and peers received usefulness ratings of 4.75 and 3.92, respectively. This translated to them finding the use of blogs to receive teacher feedback as "somewhat useful", and while they were unsure of or neutral in regards to the use of the technology as a platform for peer feedback, it can be seen that the rating of 3.92 is very close to 4, or "somewhat useful". In the open-ended items on the questionnaire, the

participants indicated that they found receiving feedback from their peers and the researcher-instructor to be helpful, as exemplified by the following anonymous responses to the question of whether blogging should be utilized for next year's students (translated from Thai):

Yes, because it is a channel that allows quick submission of work for the teacher to check, as well as friends.

Blogs are a place where you can display your work for the teacher/friends/other people to advise you and suggest improvements.

Culpan (2005, cited in Elwood and Maclean, 2009) observed that to successfully introduce a technology to the teaching and learning process, fostering positive attitudes on the part of the users of the technology is essential. The BG perceived the blogs as being useful as a channel for the exchange of feedback. The feedback the student writers received appeared to have an effect on their writing process. Some of texts shared via the blog posts the student writers made appeared to show evidence of them revisiting and reworking ideas in their writing. Certain changes to content seemed like they could be traced back to revision-oriented remarks made by both peers and the researcher-instructor in the comments section of the blogs. Fully 14 of the 50 revision-oriented peer feedback comments (28%) showed an apparent connection to alterations to participants' texts in blog posts

made following receipt of the comment. The discourse functions and areas of peers' text these 14 comments focused on are summarized in the following tables.

Table 4.3 Discourse function of revision-oriented peer feedback comments with apparent link to revisions

Discourse function	Number of comments
Evaluation	1
Suggestion	4
Clarification	1
Alteration	8

As seen in the table, the majority of the revision-oriented peer feedback comments that showed a seeming link with revisions in the student writers' texts were alteration comments. Alteration comments are those that delineate specific issues for modification, such as an alternative word choice (Liu and Sadler, 2003).

Table 4.4 Text area of focus of revision-oriented peer feedback comments with apparent link to revisions

Text area of focus	Number of comments
Global	5
Local	9

Over half of the revision-oriented peer feedback comments which showed evidence of a connection to textual changes focused on local areas of the text, as can be seen in the table. Thus, in summary, the majority of the revision-oriented peer feedback comments that showed an ostensible connection with revisions undertaken by the student writers were alteration comments that pinpointed local areas of the text. Such a comment and the revision it apparently prompted can be seen in the following example, where a student writer posted a draft of her text that began with this sentence:

If talking about an idol of many people when they were young, their idols is often the characters in cartoons. [S5]

A comment was posted by a peer, in which she pointed out an apparent grammatical error regarding the student writer's verb choice:

Line 1: their idols is -> "are" ??? [S16]

This was a revision-oriented alteration comment, wherein a potential, specific problem with the text was indicated and a potential solution was given—namely, the changing of the verb “is” to “are”, so that it would agree with the plural subject “idols”. The student writer thanked her peer for the comment, and in the following blog post, the initial sentence of the text had been altered (the revised portion is underlined):

If talking about an idol of many people when they were young, their idols are often the characters in cartoons.

The change to the student writer's text appeared to correspond to the suggestion in the comment that had been left by her peer.

There were also apparent connections to revisions made by student writers and comments left by the researcher-instructor, as well. However, a significant portion of the observed revision-oriented comments overlapped with suggestions made by the researcher-instructor, which means it was difficult to determine and/or conclude the impetus for the textual changes; that is, whether the changes were prompted by reading and responding to a peer's comment, or one from the researcher-instructor. For example, one student writer's draft for a writing assignment was 835 words long, which was significantly over the word limit imposed by the parameters of the assignment. Furthermore, the text consisted of two continuous paragraphs. In a comment, the researcher-instructor noted that the text was too long. His peer left a comment noting this same issue, but which also contained this suggestion on the blog post where the student writer shared the text:

The first that I feel with this essay is too long to read, so I think you should separate each topic sentences for easier reading. [S6]

In the ensuing blog post, the student writer reduced his text to 230 words, and separated it into four clearly demarcated paragraphs. It would seem there was a

connection between the participant's subsequent actions and the feedback that was received. Whether this was due to the researcher-instructor's remark, the peer's advice, or some other motivation, however, could not be clearly concluded.

There was, however, evidence of student writers acknowledging the comments left by their peers and the researcher-instructor. They either directly replied to a comment using the platform's response functionality, or included short commentary that addressed particular points brought up in comments in a subsequent blog post. The following are examples of both forms of acknowledgement, presented in their unedited form (the / indicates a line break):

oh I forgot that / thx for commenting [S25]

I hope it will be complete / Thx for every your comments [S6]

These acknowledgements would seem to lend support to the conclusion that student writers were at least recognizing textual issues that their peers and the researcher-instructor had brought up, as well as suggestions made for modifications to their texts. Whether they took these into consideration when working on subsequent versions of the texts in question, though, cannot be definitively concluded.

4.1.6 Summary of findings for Research Question 1

Overall, it would appear that there three primary effects from the use of blogs on the participants' writing process. Following blog use, the participants

appeared to increase their use of English in generating texts and have a stronger awareness of the writing process. The use of blogs also seemed to introduce new and different opportunities for participants to interact and engage with their peers, their teacher, and their texts. These opportunities appeared to have stimulated revision and editing of their texts, as there were changes noted that corresponded to the feedback offered by their peers and the researcher-instructor via the commenting functionality of the blogging platform.

4.2. The effects of microblogging on participants' writing process

The second research question of “What are the effects of microblogging on Thai EFL learners' English writing process?”, was approached in a comparable manner to the first research question, as the two were structured similarly. That is, the influence of participants' microblogging use on their writing process was determined by analyzing the posts, or tweets, they made over the ten-week mandatory microblog use period, then comparing these data to information gathered via the microblogging use questionnaire and semi-structured retrospective interviews.

4.2.1 MG participants' writing process prior to microblogging use

Directed content analysis using the content coding scheme discussed in Chapter 3 of the data collected from the participants' questionnaire responses and their interviews revealed that before the participants utilized microblogging, the completion of their writing assignments was highly individualized. This was confirmed

through one participant's anonymous response on the questionnaire (translated from Thai):

Before studying Experiential English I, my writing didn't have much of a pattern.

Analysis of the questionnaire and interview data revealed that the MG had several strategies for completing writing assignments. These strategies were: writing simultaneously in Thai and English, writing a single draft in English, writing initial drafts in Thai and then translating them, analyzing writing assignment criteria, and adopting key words and phrases from online sources. These strategies are discussed in greater detail in the following sections.

4.2.1.1 Writing simultaneously in Thai and English

The strategy to complete writing assignments that was used most often by the MG participants was composing texts concurrently in both Thai and English. Of the 33 questionnaire respondents, this strategy was mentioned by 16, or 48.48%, as the primary way they completed writing assignments. Some of the anonymous respondents revealed that (translated from Thai):

I'll write out my ideas in Thai and English on paper.

I mostly write in English, except for some things I'm not sure about, then I have to use Thai.

I look at the topic and write down some ideas in Thai. I might write down some English words or sentences, if I know them.

One of the participants who was interviewed also revealed that he utilized this strategy when given a writing assignment:

I think of the outline of the text in Thai. I might write down some ideas in Thai, but I write the text in English, unless there are some vocabulary words I can't think of. If that happens, I just write it in Thai. [S42]

The concurrent use of Thai and English when composing texts was the strategy used most often by this group of participants.

4.2.1.2 Writing a single draft in English

The second most common strategy utilized by the MG was to write a single draft in English and hand this in on the assignment's due date. There were 15 questionnaire respondents (45.45%) who disclosed that this was their preferred method for completing writing assignments. Anonymous questionnaire respondents revealed their use of this strategy (translated from Thai):

Usually, after I understand the instructions of the writing assignment, I just write it.

It's a very normal process. I just write out my ideas.

I think of some ideas first and then just start writing them out. I'll reread the text to check on the language later.

A similar approach was shared by one of the interviewed participants:

I'll think of some ideas on the topic and begin writing it immediately. I only check it if I have time, but I usually don't, but I try to be careful when I'm writing it. I write it in English. [S47]

This strategy was used nearly as often as composing texts using both Thai and English, with only one less questionnaire respondent identifying this as their preferred approach for completing English writing assignment.

4.2.1.3 Writing initial drafts in Thai before translating them

Composing a text in Thai and then translating it to English before submission was the third most common strategy utilized by this group of student writers to accomplish a writing assignment. There were nine respondents, or 27.27%, who named this as a strategy they utilized. This strategy was talked about in some of the anonymous questionnaire responses to the question of how the respondent tackled writing assignments in English (translated from Thai):

I have to use Thai to write first. Before I give the assignment in, I translate it to English. I search on Google to help me.

I'll think of the ideas in Thai and write them down on a piece of paper. I'll just write in Thai. After that, I'll translate it to English and organize the text.

I try to see what the assignment requires and then I write down what I think of in Thai. Afterwards, I translate what I wrote by going online and looking up the vocabulary words I don't know.

This strategy was also the primary approach adopted by one of the interviewed participants (translated from Thai):

To be honest, I usually start writing in Thai. I usually write the whole text in Thai, because it's easier for me to get my ideas down. I use the Internet to help me translate the text. [S58]

4.2.1.4 Analyzing writing assignment criteria

Another strategy that the student writers in the MG revealed that they used was the analysis of the criteria set forth for each writing assignment. There were four respondents (12.12%) who stated that they used this as one strategy for completing writing assignments. One anonymous questionnaire respondent said (translated from Thai):

I look carefully at what the assignment says, what is the content of the assignment, when I start writing.

Another anonymous respondent revealed (translated from Thai):

I focus on the instructions on the assignment given to me. I try to see what I have to do from them.

The strategy of analyzing the assignment criteria was mentioned in conjunction with other approaches. One interviewed participant revealed how she used this as one of her strategies for completing a writing assignment. She wrote initial drafts in Thai, but also stated that:

I focus on the writing assignment I've been given and use it to guide me as I write. If I need some more ideas or help, I use the Internet. [S58]

This participant's discussion of her strategies for handling writing assignments also alludes to another strategy that was used by other MG participants, which was utilizing information from online sources.

4.2.1.5 Adopting key words and phrases from online sources

Many of the MG participants revealed that they used the Internet to help them complete their writing assignments. For instance, they would use online sources to help them translate their texts from Thai to English. However, three questionnaire respondents (9.09%) specifically disclosed that they utilized it to search for key words or phrases they could adapt to be used in their own texts. This is seen in their responses (translated from Thai):

I use Google to search for the words or sentences that sound normal, so my writing will be understandable.

It's hard to think of the right vocabulary words, so I use the Internet to find the vocabulary words that I can use in my writing.

I look on Google for the right pattern to use in my writing. I go to see how other people have written on the topic and try to use the similar patterns.

This strategy was used in combination with one of the other aforementioned strategies, as the respondents all disclosed the use of other strategies; namely, writing simultaneously in Thai and English and composing a single text directly in Thai. This was not uncommon. In fact, although some of the student writers appeared to favor a certain strategy and utilized it for every writing assignment, there were also those who revealed that they used a combination of strategies or that they used different strategies for different assignments. One interview participant had a loose set of steps he would follow with each writing assignment, but he admitted that he did not always utilize this particular procedure.

I usually start with an outline in my mind, then I make notes before I start writing, but sometimes I just start writing. [S42]

4.2.2 Commonalities in MG participants' writing process prior to technology use

As can be seen, the strategies adopted by the MG to complete writing assignments were varied and rather idiosyncratic. There were commonalities among these various approaches, however, which were the utilization of Thai, the lack of systematicity, inconsistent attempts at editing and revising, and no mention of the seeking or exchange of feedback on a text. The introduction of microblogging appeared to affect these factors. Once microblogging was implemented, there

seemed to be less use of Thai in the texts the student writers generated. However, the use of Thai was still rather prevalent in the feedback that was exchanged. The use of microblogging also appeared to foster greater awareness of writing as a process. It further allowed the participants to view the work of others, and to give and receive feedback on their writing, which seemed to impact the participants' writing process. These apparent effects that were engendered by microblogging will be discussed in greater detail in the following sections.

4.2.3 Reduction of the use of Thai during the writing process

One seeming effect of the introduction of microblogging was the reduction of the use of Thai in the composing of texts. The most common strategy used by the MG participants for completing writing assignments before microblogging use was implemented was writing texts using a combination of Thai and English. While both Thai and transliterated Thai still existed in tweets referring to the texts, the texts produced by the student writers themselves did not contain any Thai. The use of microblogs appeared to lead to greater use of English during the student writers' writing process.

4.2.4 Increased awareness of writing as a recursive process

The use of less Thai by the MG participants was not the only ostensible effect on their writing process that followed from the introduction of microblogging. The use of the technology also appeared to lead to a greater awareness of writing as a process. As noted, the second most common strategy employed by the majority of

MG participants when completing writing assignments was to write a single text and give that in on the due date. With the use of microblogging, however, there seemed to be stronger awareness of writing as a process. This was seen through tweets with links to different versions of the participants' writing assignments coupled with the names of the different stages of the writing process. The following are some examples, presented in their unedited form, but with the link to the student writers' texts uploaded to file-sharing sites removed and replaced by *(link)* to ensure the participants' privacy, but otherwise unedited:

Drafting: Bangkok Attractions (link) [S27]

Pre-writing dramatic story – (link) [S56]

Dramatic2_Bomb_Drafting – (link) [S58]

Marking the uploaded documents with the names of the stages of the writing process would seem to indicate some recognition of these stages. In addition, the recursive nature of writing also seemed to be shown in instances of student writers mentioning their progress during the writing process, as in the following example tweets (presented unedited):

My work nearing completion. I am furnishing my 2nd draft [S42]

OK thanks. I will edit again. [S55]

third update : fix punctuation usage, sentence fragmentation and fix ambiguous words [S61]

4.2.5 Decreased isolation within the writing process

Microblogs made it possible for the MG participants to view other student writers' texts, and to elicit and give feedback, both on their peers' texts and their own. Such capabilities transformed the private act of writing into a more public one. It also allowed the student writers to interact with other people, as well as their texts, during the writing process. The reduction of the student writers' isolation, which was facilitated by the microblogs, appeared to have an effect on their writing process.

4.2.5.1 Access to peers' texts

Two participants noted the benefit of having access to their peers' texts, as seen in the following anonymous responses to a question about whether microblogging should be continued (translated from Thai):

It's easy to see friends' work and that can help guide us.

We can see friends' work on Twitter. It can give us some ideas.

One of the interviewed participants also revealed that this was an aspect of microblogging she found beneficial:

I can see what my friends are doing. It helps me when I feel pressured about the assignment because their work can give me ideas. [S58]

Although only a few participants indicated this aspect of microblogging to be beneficial, microblogging gave all the participants the option to view the texts

if they so desired. The student writers, in turn, could share their own texts, and others could read and comment on them, which was another aspect of microblogging that appeared to have an impact on their writing process.

4.2.5.2 Feedback on texts

Microblogs allowed the student writers to exchange feedback regarding the texts they themselves generated, as well as to offer commentary on their peers' work. Directed content analysis of the tweets with the comment coding scheme adapted from Liu and Sadler (2003), which was described in Chapter 3, revealed that a majority of the student writers' peer feedback comments were revision-oriented; more than half of the peer feedback comments were revision-oriented (67.80%), or addressed the peers' texts in a manner that could motivate revision and editing. The analysis also showed that the data fell into the initial five discourse functions, and thus, no new categories were necessary. The most common discourse function of the comments was evaluation; 26.34% of the peer feedback comments were evaluation comments. Alteration comments that proposed changes to a text were nearly as frequent, followed by suggestion comments and clarification comments. The least-observed discourse function was social interaction. The bulk of the comments (68.27%) pinpointed particular aspects of their peers' texts, rather than making reference to broader issues. The nature, discourse function, and areas of the text these comments made reference to are summarized in the following table.

Table 4.5 Summary of nature, discourse function, and text area of focus of peer-generated comments for the MG

<i>Revision Nature</i>		<i>Revision-oriented</i>		<i>Non-revision-oriented</i>	
		67.80% (139)		32.19% (66)	
<i>Discourse Function</i>	<i>Evaluation</i>	<i>Suggestion</i>	<i>Clarification</i>	<i>Alteration</i>	<i>Social interaction</i>
	26.34% (54)	20.49% (42)	16.09% (33)	24.39% (50)	12.68% (26)
<i>Text Area of Focus</i>		<i>Global</i>		<i>Local</i>	
		30.73% (63)		69.27% (142)	

The researcher-instructor's tweets were also read and categorized, with those directed at student writers and touching on writing assignments (i.e. tweets that were in the category of *comment*) undergoing directed content analysis using the coding scheme detailed in Chapter 3. In total, the researcher-instructor sent 426 tweets during the data collection period. Of these, 366 were directed at specific student writers and touched on writing assignments (the remaining 60 were general tweets, such as greetings). These 366 tweets yielded 782 sentential meaningful units, which will be treated as separate comments. A summary of the nature, discourse function, and areas of the text that were focused on in these 782 comments is shown below.

Table 4.6 Summary of nature, discourse function, and text focus area of researcher-instructor-generated comments for the MG

<i>Revision Nature</i>		<i>Revision-oriented</i>		<i>Non-revision-oriented</i>	
		78.26% (612)		21.74% (170)	
<i>Discourse Function</i>	<i>Evaluation</i>	<i>Suggestion</i>	<i>Clarification</i>	<i>Alteration</i>	<i>Social interaction</i>
	9.08% (71)	25.83% (202)	8.31% (65)	50.77% (397)	6.01% (47)
<i>Text Area of Focus</i>		<i>Global</i>		<i>Local</i>	
		51.79% (405)		48.21% (377)	

As can be seen, the comments the researcher-instructor made were mainly alteration comments, which differs from the MG participants, whose comments were mostly evaluation comments. The researcher-instructor also focused more on global areas of the texts than the participants.

Being able to give and receive feedback was perceived by the participants to be one of the most useful aspects of microblogging. As noted previously, perceptions are believed to play an important role in the acceptance of new technologies (Culpan, 2005 cited in Elwood and Maclean, 2009). When asked to rate the usefulness of different functions of the microblogging platform, the participants found all but three functions to be “not very useful”. Microblogging for the purpose of receiving teacher and peer feedback during the process of completing a writing assignment, as well as to contact the teacher, were the only functions that received

usefulness ratings higher than 2, or “not very useful”. Receiving feedback comments was deemed favorable, as seen in the following anonymous responses from the microblogging use questionnaire (translated from Thai):

There are comments given. Consequently, fixing work is convenient and fast.

It's convenient for sending in work and following up on it. It can show friends' opinions, as well as our own.

It's convenient for the teacher to join in looking at our work, so we can develop.

These aspects of microblogging—viewing the work of others and, in particular, the receipt of feedback—appeared to have an influence on the participants' written texts. Differences between various versions of a text sometimes showed a correspondence to feedback that the student writer had received. There were 21 comments, or 15.11% of all peer revision-oriented comments, that seemed to show a connection with changes made by student writers in drafts ensuing their receipt. The discourse functions of these comments are summarized in the table below.

Table 4.7 Discourse function of revision-oriented peer feedback comments with apparent link to revisions

Discourse function	Number of comments
Evaluation	1
Suggestion	4

Clarification	4
Alteration	12

From the table, it can be seen that alteration comments were the most common of the revision-oriented peer feedback comments that showed an apparent connection to revisions in the student writers' texts. These types of comments are the kind that make reference to specific aspects of a text that need modification (Liu and Sadler, 2003).

The following table details the text area the revision-oriented peer feedback comments focused on.

Table 4.8 Text area of focus of revision-oriented peer feedback comments with apparent link to revisions

Text area of focus	Number of comments
Global	3
Local	18

The table shows that of all the 21 peer feedback revision-oriented comments that showed an ostensible link to textual revisions, only three focused on global areas of the text. The remaining 18 comments, or 85.71%, pinpointed local areas of the text.

Thus, the type of comment that seemed to show the most frequent connection to revisions undertaken by the student writers was an alteration comment focusing on a

local area of the text. An example of this type of comment was received by one student writer on one of the drafts he had posted. The comment is presented in its unedited form:

"he is popular actor now" i think that it should have an article,isn't it??? [S29]

The peer noted that the sentence the student writer had written, “he is popular actor now”, was missing an article, and formulated her proposal for an alteration to the text as a question. In the next draft, the phrase highlighted by the peer had been altered in the following manner, with the edited portion underlined:

He is a popular actor now. [S48]

The revision that was made to the sentence seemed to correspond to the revision-oriented comment left by the peer. In another instance, a peer tweeted this comment to a student writer (presented in its unedited form):

Did u search only one source? [S29]

The peer wanted to clarify whether the information the student writer had included in her text was from only one external source of information. Specifically, the student writer had written:

From the wiki, Enid Blyton was born on 11 August 1897 in England. [S30]

As can be seen, in the original text, she made reference to an article on Enid Blyton she had read on Wikipedia (<http://www.wikipedia.org>), an online encyclopedia. In the

subsequent draft, she had added the underlined portion to another sentence in the text:

From the Enid Blyton's fans website, her first book, 'Child Whispers' was published in 1922. [S30]

The additional information the student writer included seemed to be connected to the comment her peer made. The peer had questioned the legitimacy of using only one source of information, and the student writer appeared to put in the reference to another website as a response to the peer's query. Instances such as these seemed to point to the feedback received via microblogging having an effect on the student writers' writing process. However, there were instances where the feedback from peers and the researcher-instructor intersected. Therefore, it was not possible to determine which comment may have influenced the student writers' later work, or even if the comments had any effect at all.

4.2.6 Summary of findings for Research Question 2

In summation, microblogging appeared to have several major effects on the MG participants' writing process. Prior to the introduction of this technology, the participants often utilized Thai during their writing process and lacked a systematic approach to the completion of writing assignments. There were only a few references to revisiting and reworking ideas, i.e. working recursively through the writing process. They made no reference to seeking external input on their texts;

texts were completed alone. After microblogging was implemented, however, there was no Thai used in the texts the participants composed and they appeared to have a stronger awareness of writing as a recursive process. In addition, the student writers mentioned viewing others' texts, and indicated they believed the microblogging platform to be a useful channel for feedback exchange. The feedback they received seemed to share an apparent connection to some of the textual changes noted, although there were a few instances where the revisions did not occur as predicted. That is, the revisions did not occur in the ensuing texts, but in texts that followed later.

4.3. The differences between the effects of blogging and microblogging on participants' writing process

To address the third research question of "What are the differences between the effects of blogging and microblogging on Thai undergraduate learners' writing process?", the findings from the first and second research questions were compared. Overall, there did not appear to be any major differences between the effects of blogging and microblogging on the student writers' writing process. Both technologies appeared to lead to a decrease in the use of Thai during the writing process and an increased awareness of writing as a process. They both allowed student writers the ability to view and compare their work to others, and offered a channel for the exchange of feedback, which subsequently appeared to influence their texts.

Differences did appear, however, in regards to the exchange of feedback and the participants' use of their respective technologies.

4.3.1 Differences in requests for peer feedback

Although the overall effects of the technologies appeared similar, differences were noted in the way in which the participants sought peer feedback via the two different platforms. These differences are summarized in the table that follows.

Table 4.9 Differences in feedback requests between BG and MG

	BG	MG
Number of explicit requests for feedback	6	10
Requests directed at specific people	2	7

The BG had four fewer explicit requests for feedback than observed for the MG), and no instances of requests for feedback made to an individual peer. The only two feedback requests directed at a specific person were addressed to the researcher-instructor. An example of an explicit request for feedback (directed in general to all blog visitors) is presented below, along with a feedback request directed at the researcher-instructor (a / indicates a line break).

Please comment my first part of Individual project! / Is it interesting? [S25]

Thank you teacher. But if you have time please check my new work about

Dramatic Story. Thank you [S10]

For the MG, there were ten explicit requests for feedback. Of these explicit requests, seven were directed at specific peers or the researcher-instructor, utilizing the @ symbol. Examples of these requests are shown below, unedited except for the replacement of specific Twitter usernames with @username, to ensure the participants' and researcher-instructor's privacy. The first tweet is not directed at any particular user. The second tweet is directed at a peer, while the third is directed at the researcher-instructor.

My email pls, comment. Thx. :))

@username pls comment my work back [S58]

*@username i sent my work late. I'm sorry ,please check and recommend .
thank you kub [S36]*

As can be seen, in the MG, there were a greater number of explicit requests for feedback, and more requests addressed to particular people, than the BG.

4.3.2 Differences in peer feedback patterns

The participants' feedback patterns also seemed to show certain dissimilarities. The calculated percentage of revision-oriented peer feedback comments appeared relatively low for the blogging group, constituting only about a third (33.78%) of the number of all the peer feedback comments made. In contrast, the percentage of revision-oriented peer feedback comments for the microblogging group was double that of the BG, at 67.80%. For both groups, evaluation comments

were the most frequently observed, but while social interaction comments ranked second most frequent for the BG, they were the least frequent discourse function for the MG's peer feedback comments. The areas of text that were the focus of the comments each group frequently made were also different. For the BG, 68.24% of the comments addressed global issues with the text, and 30.41% remarked on local issues. For the MG, 69.27% of the peer feedback comments focused on local areas of a text, and 30.73% addressed global matters. As can be seen, the percentages for each group were nearly the reverse of the other. However, the percentage of textual changes that appeared to correspond to a revision-oriented comment was higher for the BG at 28% than for the MG, where only 15.11% of alterations seen appeared to be linked to received feedback.

4.3.3 Delayed revision

One finding of note regarding the different uses of the blogging and microblogging platforms was how there was apparent postponement of revision in the MG. There were six instances of alterations being made to a text by an MG participant that seemed to be linked to a comment, but the change was not made immediately following receipt of the comment. For instance, one MG student writer was explicitly directed by the researcher-instructor to revise this sentence in the first draft of a text he had produced by changing the underlined portion:

I shouted for help but there were no answers. [S28]

It took two more subsequent drafts before he altered the sentence to:

I shouted for help but there was no answer.

While there were only a small number of occurrences of this delayed revision, it was observed with four separate student writers in the MG. This phenomenon was not observed with the BG.

4.3.4 Abandonment of technology

Aside from the differences regarding the participants' peer feedback exchanges and the timing of the revisions in the MG, it was also observed that there were no instances of BG participants essentially abandoning the blogging platform. As stated previously, all of the participants were asked to make at least four posts to their respective platforms for each of the seven writing assignments. Since the average duration of the writing assignments was one week, they were essentially asked to make four blog or microblog posts per week. During the ten weeks of the compulsory blogging period, the blogging group participants made a total of 644 blog posts, which translated to a mean of 2.48 posts per week for each participant. The participants of the microblogging group made 1,158 posts to the website Twitter, or a mean of 3.31 posts per week, per participant. Therefore, each group made slightly fewer posts than was required.

However, even the BG participants who stopped making posts still continued to comment on their peers' work until the end of the mandatory blogging period.

One BG participant, for example, made only six posts in total over the ten-week mandatory blogging period; over this period, however, he visited his peers' blogs and left feedback on their work. There were eight MG participants, on the other hand, who did not post any tweets throughout the mandatory technology use period that could be classified as peer feedback. Furthermore, there were three participants who sent less than ten tweets during the compulsory microblogging period. Of these three, there was one who posted a total of only three tweets throughout the data collection period, even after the researcher-instructor approached him in the face-to-face class and queried him regarding his rationale for his lack of participation. Thus, it can be said that even though some BG participants did not meet the minimum number of required posts, they did not discontinue use of the platform, unlike in the MG.

The qualitative data seemed to support the MG's general sense of reluctance to use their technology. When a questionnaire item queried the participants as to whether they would advocate continued use of the technology they had utilized for next year's students, 100% of the BG participants who responded agreed that blogging should be used again, whereas 60% of the MG who responded were actually *against* continued microblogging use. Additionally, there were six MG questionnaire respondents (18.2%) who specifically advocated the use of an alternative CMC technology—namely, the social network site Facebook. One of the

interviewed MG participants also suggested switching over to this technology. In the BG, on the other hand, there were no calls to switch over to an alternative technology.

4.3.5 Summary of findings for Research Question 3

Overall, blogs and microblogs appeared to have similar effects on the participants' writing process. However, differences were noted in how the participants requested feedback from their peers, the feedback that they offered, the apparent postponement of revision by some members of the MG, and the seeming reluctance of some MG participants in using microblogging. There were more explicit feedback requests by the MG, as well as more revision-oriented peer feedback comments and those that focused on local issues in their peers' texts. Evaluation comments were the most common type of comment in both groups, but while social interaction comments were the BG's second-most common type, they were the MG's least common. There were six instances of texts being altered by the MG participants where the changes seemed to be linked to a comment, but the change did not follow immediately after receipt of the comment. Eight MG participants made no peer feedback comments. One MG participant sent only three tweets and then simply abandoned the microblogging platform, in that he not only did not tweet about his work, but also refused to comment on his peers' texts as well. The phenomenon of delaying revision was not seen with the BG, and though there were

BG participants who made very few blog posts, they continued to leave comments for their peers throughout the mandatory blog use period.

4.4. The effects of blogging on participants' writing anxiety levels

The fourth research question was: "What are the effects of blogging on Thai EFL undergraduate learners' writing anxiety?". In order to determine the effects of blogging on the blogging group's writing anxiety levels, their responses on the three administrations of the Second Language Writing Anxiety Inventory, or SLWAI, were calculated and analyzed with descriptive statistics. To augment these data, the blog posts and comments made during the ten-week mandatory use period, as well as information from the questionnaire and retrospective semi-structured interviews conducted with randomly selected participants, were examined using directed content analysis.

4.4.1 BG's writing anxiety

To examine the blogging group's writing anxiety, the mean writing anxiety level of the participants as measured by the SLWAI were calculated at three different intervals. These intervals were: before the introduction of mandatory blogging, immediately after the conclusion of ten weeks of mandatory blogging, and two weeks following the end of the mandatory blog use period. Before mandatory blogging was implemented, the BG's mean writing anxiety level was at 66.5. There was a decrease in this mean writing anxiety level following the ten weeks of blogging, when the mean writing anxiety level fell to 61.42. This reduction continued two

weeks later, when the mean decreased again to 61.21. These data are summarized in the following table.

Table 4.10 Participants' mean writing anxiety levels at three different intervals

Writing anxiety level	<i>Prior to use of blogging</i>	<i>Immediately after conclusion of blogging use</i>	<i>Two weeks after conclusion of blogging use</i>
Mean	66.5	61.42	61.21
Standard deviation	14.22	15.45	17.51

4.4.2 Further exploration of BG's writing anxiety

To delve deeper into the BG's writing anxiety, further analysis was undertaken.

4.4.2.1 BG's mean agreement with individual SLWAI items

The mean level of agreement with each of the 22 individual items on the SLWAI were calculated at the three different intervals. The results are presented in the following table.

Table 4.11 BG's mean agreement with SLWAI items at three different intervals

	<i>Prior to blog use</i>	<i>Immediately after end of blog use</i>	<i>2 weeks after end of blog use</i>
1. While writing in English, I am not nervous at all.	3.31*	3	3.13
2. I feel my heart pounding when I write English compositions under time constraint.	3.23	3.13	2.88
3. While writing English compositions, I feel worried and uneasy if I know they will be	3.23	2.92	2.92

evaluated.			
4. I often choose to write down my thoughts in English.	3.08	2.92	3.25
5. I usually do my best to avoid writing English compositions.	2.92	2.71	2.71
6. My mind often goes blank when I start to work on an English composition.	2.85	2.63	2.63
7. I don't worry that my English compositions are a lot worse than others.	3.15	3.29	3.04
8. I tremble or perspire when I write English compositions under time pressure.	2.46	2.29	2.34
9. If my English composition is to be evaluated, I would worry about getting a very poor grade.	3.15	3.20	2.75
10. I do my best to avoid situations in which I have to write in English.	2.65	2.46	2.71
11. My thoughts become jumbled when I write English compositions under time constraint.	2.96	2.83	3.25
12. Unless I have no choice, I would not use English to write compositions.	3.12	3	3.08
13. I often feel panic when I write English compositions under time constraint.	3.08	2.88	2.75
14. I am afraid that the other students would deride my English composition if they read it.	2.69	2.17	2.38
15. I freeze up when unexpectedly asked to write English compositions.	2.81	2.58	2.46
16. I would do my best to excuse myself if asked to write English compositions.	2.62	2.46	2.42
17. I don't worry at all about what other people would think of my English compositions.	3.15	2.67	2.67
18. I usually seek every possible chance to write English compositions outside of class.	3.88	3.21	3.38
19. I usually feel my whole body rigid and tense when write English compositions.	2.69	2.54	2.21

20. I am afraid of my English composition being chosen as a sample for discussion in class.	2.88	2.5	2.33
21. I am not afraid at all that my English compositions would be rated as very poor.	3.23	3	2.92
22. Whenever possible, I would use English to write compositions.	3.35	3.04	3

*Rounded to 2 sig. fig.

The calculation revealed that all of the means were less than 4. The mean levels of agreement were between 2, which corresponded to moderate disagreement with the presented statements, and 3, which translated to not having strong feelings either way to the presented statements. The three statements the participants showed the highest level of agreement with before mandatory blogging began (insofar as these were the levels closest to 4), were statements 18, 22, and 1, respectively. After ten weeks of using blogging, the mean agreement level for each SLWAI item showed a reduction. These reductions were also seen for 11 items two weeks after mandatory blogging had been concluded; the remaining ten items either increased slightly or remained the same. The top three statements the participants leaned towards agreeing with in this period were statements 7, 18, and 9, respectively.

4.4.2.2 Categorization of BG's SLWAI scores

To further investigate the writing anxiety of the BG, the participants' individual scores on the SLWAI were examined. According to criteria set by Atay and Kurt

(2006), respondents may be categorized on the basis of their SLWAI scores as having low writing anxiety, average writing anxiety, or high writing anxiety. Participants with low writing anxiety are those whose SLWAI score is equal to or less than 58. Average writing anxiety participants have an SLWAI score between 58 and 83, and high writing anxiety participants have an SLWAI score greater than 83. A table summarizing the percentage of participants at each writing anxiety level follows.

Table 4.12 Percentage of BG participants with low, average, and high levels of writing anxiety at three different intervals

	<i>Prior to use of blogging</i>	<i>Immediately after conclusion of blogging use</i>	<i>Two weeks after conclusion of blogging use</i>
Low	30.77% (8)	44% (11)	56% (14)
Average	50% (13)	44% (11)	28% (7)
High	19.23% (5)	8% (2)	12% (3)

The categorization of the participants' SLWAI scores revealed that initially, there were only a small percentage of users with either high or low writing anxiety. The majority were at an average level of writing anxiety. Once blogging ended, the percentage of participants with low and average anxiety were equal. Two weeks later, however, those with low writing anxiety were the majority. The data taken from the blog posts and the interviews were examined for any information that could help to give greater insight in regards to these observations.

4.4.2.3 Qualitative data on BG's writing anxiety

Data taken from the blog posts, the questionnaire, and the interviews were examined for more information on the BG's writing anxiety. It was found that initially, only four of the 26 participants (15.38%) stated on their blogs that they thought of writing as their poorest skill. This figure aligned with the small percentage of participants at the high writing anxiety level, although it cannot be stated decisively that those who professed to find writing problematic were the same participants who yielded SLWAI scores that placed them in this category, as the SLWAI scores were collected anonymously.

The interview data yielded additional information on the student writers' anxiety levels. Of the three participants who were interviewed, two revealed that they felt some anxiety when given a writing assignment, but they also disclosed that they had means by which they alleviated these feelings. One interview participant revealed that though he might have some uncertainties when given a writing assignment, he had a method for addressing these problems:

As long as I remember the patterns I've read, I can do the writing. [S15]

The other interviewed participant also revealed how he dealt with anxious feelings:

If I have Google, I'm okay, but I do get worried when I have to do any writing.

I confess I haven't done much writing before. [S6]

Whether or not some of the other student writers in the group had similar or comparable methods of handling their writing assignments, and thus, managing their writing anxiety, could not be determined, however.

The data from the blog posts and comments gave some additional insight into the anxiety levels of the BG participants. There were some statements made by the student writers on their blogs which may have alluded to writing anxiety, but information was often lacking which would allow a decisive declaration of them being expressions of writing anxiety, such as the following, taken unedited from a blog post by one student writer:

I hope this gonna be OK! [S10]

This statement could be read as expressing writing anxiety, in that it seems to show a concern regarding outside perceptions of the student writer's work, or cognitive anxiety, a component of writing anxiety (Cheng, 2004). However, there was little information found in the remainder of the blog post that would make this an unambiguous statement of writing anxiety. Thus, it was not regarded as an expression of writing anxiety. There were, in fact, very few instances of student writers utilizing the blogs as a place to share potential anxious feelings about writing, even though one of the objectives of this technology's introduction was so student writers would have a space to make their anxiety public. Instead, it would appear as though the blogs were used more to seek assistance and insight, both from peers and the

researcher-instructor. Overall, it would seem that the student writers in this group were at an average, or manageable, level of writing anxiety both at the start of blogging use and immediately following its conclusion.

4.4.3 Summary of findings for Research Question 4

Both the quantitative and qualitative data seemed to point to the BG participants having a manageable level of writing anxiety. Their mean writing anxiety level, as measured by the SLWAI, did show some reductions after ten weeks of mandatory blog use. Furthermore, the percentage of participants with low writing anxiety increased, while the percentage of those with high writing anxiety decreased.

4.5. The effects of microblogging on participants' writing anxiety levels

In order to answer the fifth research question, which was “What are the effects of microblogging on Thai undergraduate learners' writing anxiety?”, there was an attempt to determine if the microblogging group's writing anxiety levels were affected by the introduction of microblogging into their writing process. To do so, their responses to the three administrations of the SLWAI were calculated and analyzed using descriptive statistics. The participants' microblog posts and semi-structured interviews were also examined and used to provide additional information about the possible effects of microblogging on the student writers' writing anxiety.

4.5.1 MG's writing anxiety

First, the researcher calculated the MG participants' mean writing anxiety level at three different intervals: prior to the implementation of mandatory

microblogging, after the conclusion of ten weeks of mandatory microblogging, and two weeks afterwards. The results are presented in the table below.

Table 4.13 BG participants' mean writing anxiety levels, as measured by the SLWAI, at three different intervals

Writing anxiety level	<i>Prior to use of microblogging</i>	<i>Immediately after conclusion of microblogging use</i>	<i>Two weeks after conclusion of microblogging use</i>
Mean	72.69	69.8	67.45
Standard deviation	11.91	15.21	14.1

The calculation showed that the participants' mean writing anxiety levels showed a steady decline from before microblogging was introduced, to when it was halted ten weeks later, and two weeks following that. The initial level was 72.69, but after the participants had used microblogging for ten weeks, this level dropped to 69.8. Two weeks after mandatory microblogging ended, the level was at 67.45.

4.5.2 Further exploration of MG's writing anxiety

To gain greater insight into the MG's writing anxiety, further analysis was undertaken.

4.5.2.1 MG's mean agreement with individual SLWAI items

The MG's mean level of agreement with the 22 items of the inventory were determined at the three different intervals. The data are shown in the table.

Table 4.14 MG's mean agreement with SLWAI items at three different intervals

	<i>Prior to microblog</i>	<i>Immediately after end of</i>	<i>2 weeks after end</i>

	<i>use</i>	<i>microblog use</i>	<i>of microblog use</i>
1. While writing in English, I am not nervous at all.	3.56*	3.07	3.21
2. I feel my heart pounding when I write English compositions under time constraint.	3.53	3.67	3.07
3. While writing English compositions, I feel worried and uneasy if I know they will be evaluated.	3.66	3.47	3.03
4. I often choose to write down my thoughts in English.	3.22	3.37	3.48
5. I usually do my best to avoid writing English compositions.	3.28	3.17	3.03
6. My mind often goes blank when I start to work on an English composition.	3.31	3.33	2.79
7. I don't worry that my English compositions are a lot worse than others.	3.34	3	3.03
8. I tremble or perspire when I write English compositions under time pressure.	3.06	3.03	2.86
9. If my English composition is to be evaluated, I would worry about getting a very poor grade.	3.72	3.27	3.41
10. I do my best to avoid situations in which I have to write in English.	3.16	2.93	3.14
11. My thoughts become jumbled when I write English compositions under time constraint.	3.5	3.47	3.31
12. Unless I have no choice, I would not use English to write compositions.	3.22	3.33	3.24
13. I often feel panic when I write English compositions under time constraint.	3.44	3.27	3.1
14. I am afraid that the other students would deride my English composition if they read it.	2.88	2.8	2.59
15. I freeze up when unexpectedly asked	3.28	3.03	2.97

to write English compositions.			
16. I would do my best to excuse myself if asked to write English compositions.	2.97	2.73	2.66
17. I don't worry at all about what other people would think of my English compositions.	3.09	2.93	2.97
18. I usually seek every possible chance to write English compositions outside of class.	3.44	3.37	3.52
19. I usually feel my whole body rigid and tense when write English compositions.	3.06	3.2	2.72
20. I am afraid of my English composition being chosen as a sample for discussion in class.	3.38	3.1	2.93
21. I am not afraid at all that my English compositions would be rated as very poor.	3.16	2.97	3.03
22. Whenever possible, I would use English to write compositions.	3.44	3.3	3.34

*Rounded to 2 sig. fig.

As can be seen, although the means fell after ten weeks of microblogging, none of the items garnered a mean agreement level beyond 3, which meant the participants did not have strong feelings either way toward the presented statements. This also remained true two weeks later, although it was noted that the mean agreement level for five of the items had risen slightly at this interval. Prior to the introduction of microblogging, the top three statements the participants showed a relatively strong level of agreement with were, respectively, statements 9, 8, and 7. After ten weeks of microblogging, the top three statements they showed a level of agreement with were statement 2, statement 3, and statement 11.

4.5.2.2 Categorization of MG's SLWAI scores

In order to examine the participants' writing anxiety further, Atay and Kurt's (2006) criteria were applied to the SLWAI scores to categorize the participants into three writing anxiety levels: high, average, and low. The ensuing table summarizes the percentage of participants with low writing anxiety, average writing anxiety, or high writing anxiety at three different intervals.

Table 4.15 Percentage of student writers with low, average, and high levels of writing anxiety at three different intervals

	<i>Prior to use of microblogging</i>	<i>Immediately after conclusion of microblogging use</i>	<i>Two weeks after conclusion of microblogging use</i>
Low	12.5% (4)	20% (6)	20.69% (6)
Average	65.63% (21)	66.67% (20)	68.97% (20)
High	21.88% (7)	13.33% (4)	10.34% (3)

As can be seen, more than half of the student writers experienced average levels of writing anxiety before, during, and after microblogging, and these levels appeared to be maintained even two weeks after microblogging had been officially concluded. It can be noted also that the percentage of those with low anxiety increased nearly 8%, from 12.5% of the participants before the implementation of microblogging to 20% of the participants immediately after its conclusion, with another rise of slightly less than a percentage point two weeks later, indicating that this percentage was

maintained. On the other hand, the percentage of participants with high writing anxiety showed decreases at each interval, having fallen from an initial 21.88% to 10.34% two weeks after the treatment. These data appeared to show interesting trends, and so were examined further against information gathered via the microblog posts and interviews with randomly-selected participants.

4.5.2.3 Qualitative data on MG's writing anxiety

That the majority of participants in this study had average writing anxiety levels, and these levels did not appear to be affected by the introduction of microblogging to their process of completing English writing assignments, was supported by data from the microblog posts and interviews. The relatively small percentage of participants with baseline high anxiety levels seemed to be supported by data from the microblog posts, as only five participants (14%) had initially posted that they found the skill of writing problematic. The SLWAI scores were collected anonymously, however, so it could be conclusively stated that the student writers who reported difficulty with writing were those who achieved SLWAI scores that placed them at a high anxiety level, but the correspondingly low figures would appear noteworthy.

Data from the interviews provided additional insight into the participants' writing anxiety levels. One interviewed participant revealed she felt "a little bit pressured" when she was given a writing assignment because she had problems with

thinking of what vocabulary items and grammar to use. Another interviewed participant revealed:

At first, I didn't really like it [writing], but if I just kept doing it...if I do it often, it's kind of fun and it gives you a lot of knowledge. [S27]

Both of these responses seem to indicate that a moderate level of writing anxiety though unpleasant, was not unbearable.

Analysis of the participants' microblog posts also revealed that though the platform was introduced as a channel for voicing any anxiety that arose during the completion of their writing assignments, very few participants utilized the platform in such a manner. Although there were several posts that appeared to be talking about anxiety, very few clearly related anxiety to working on an English writing assignment. Cheng, Horwitz, and Schallert (1999) have argued that L2 writing anxiety is a language-skill-specific anxiety, and though it may be correlated with other forms of anxiety (Cheng, 2002), it is a distinct construct. As such, for instance, a microblog post that stated, "headache!!!" was not seen as referring to the experience of writing anxiety, as there was not enough evidence in the post to explain why it was made. A post by another student writer, however, stated:

i am a bit worry about it. but if I cut some sentence, the content of the story would not be complete [S52]

This could be seen as referring to anxiety engendered during a step in the writing process. Specifically, this participant was experiencing anxiety as he worked to revise and edit his work. However, only a very small number of posts made during the ten weeks microblogging was utilized appeared to be explicitly expressing writing anxiety. The technology had been introduced so student writers would have a place to share their writing anxiety, but few microblog posts seemed to address this issue.

Moreover, not only did student writers rarely use the microblogging platform to post messages that could be explicitly linked to experiencing writing anxiety, there were some instances where they used it for the sort of interactions Rodems (2011) found beneficial. There was some evidence that they used the site to lend support to each other, as well as elicit and give feedback on their writing, as seen in the following microblog posts:

Your language is really good. But it contains few words. It would be better to write more words. [S28]

This is My Editing round2. Please check my work [S29]

I think your essay is very long. The conclusion didn't tell me what you have learned from his story. [S31]

Thus, though they did not use Twitter to articulate their writing anxiety, they were using it in a manner that might have been conducive to alleviating it.

4.5.3 Summary of research findings for Research Question 5

The quantitative and qualitative data both indicated that the MG participants appeared to be at an average level of writing anxiety. Their mean writing anxiety level, as measured by the SLWAI, showed a slight reduction after ten weeks of mandatory microblogging use, and also two weeks after this period ended. The percentages of participants with high and low writing anxiety appeared to be affected by the introduction of the technology, with the former group increasing and the latter group decreasing.

4.6 The differences between the effects of blogging and microblogging on participants' writing anxiety levels

The sixth and final research question was “What are the differences between the effects of blogging and microblogging on Thai EFL undergraduate learners' writing anxiety?” In order to determine whether these technologies had different effects on the student writers' levels of writing anxiety, statistical analysis was carried out on the SLWAI scores obtained following the immediate completion of blogging and microblogging use. The results are in the ensuing table.

Table 4.16 Independent samples t-test scores for the BG SLWAI post-test and MG SLWAI post-test scores

	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>Sig</i>
BG	24	61.4	15.5	1.9	52	.051
MG	30	69.8	15.2			

Neither blogging nor microblogging had any statistically significant effect on the participants' writing anxiety levels as measured by the SLWAI after they had been used for ten weeks, $t(52) = 1.9, p = .051$. This would seem to be in line with the way the two technologies were utilized; they were used in highly similar ways by both groups of participants.

However, while the analysis did not uncover a statistically significant difference between the effect of blogging and microblogging on the participants' writing anxiety levels, the sample investigated by this study was relatively small. A statistically significant difference may potentially have been detected with a larger sample size. The majority of both groups of participants began the study with an average level of writing anxiety. Although for both groups, there were decreases in the percentage of student writers with high writing anxiety, as well as increases in the percentage of those with low writing anxiety, by the end of the data collection period of ten weeks, most of the participants were still at the average writing anxiety level. The participants also rarely referenced feelings of anxiety in their blog and microblog posts. However, as noted in the previous section, after two weeks had passed following the end of mandatory technology use, the blogging group had a higher percentage of participants at a low writing anxiety level.

4.6.1 Summary of research findings for Research Question 6

The effect of blogging and microblogging on the participants' writing anxiety did not show a statistically significant difference. This was consistent with the similar

manner in which the BG and MG deployed their respective technologies, as well as how infrequently they made reference to writing anxiety in their blogs and microblogs.

4.7. Summary of the research findings

The results yielded by the participants of the blogging group and microblogging group after ten weeks of mandatory use of their respective platforms are summarized in the following sections.

4.7.1 Technologies' effects on participants' writing process

The use of both blogs and microblogs appeared to have some effect on the writing process of both groups of participants. Prior to their use, many of the student writers used a great deal of Thai during their writing process. Their writing process also lacked recursion and input from outside readers. With blogs and microblogs, however, the student writers' writing process saw less use of Thai. While some of the peer feedback comments made still contained Thai, the texts they composed for the writing assignments themselves had no Thai. There also seemed to be a stronger awareness of writing as a process. The titles and content of the BG participants' blog posts indicated a stronger awareness of recursive nature of writing. Titles made reference to various stages of the writing process, while some blog posts contained commentary on the individual student writer's progress through the writing process, citing the revisiting and revision of ideas. Tweets also indicated this same awareness, with reference made to different stages of the writing process and different activities

associated with each stage, such as the revision of a text. Furthermore, the ability to examine others' texts and to exchange feedback with both peers and the teacher were pinpointed as beneficial features of the technologies. There were certain corresponding elements between the feedback offered and subsequent textual changes. Below is a summary of the results regarding the peer feedback comments exchanged during the data collection period.

Table 4.17 Summary of results regarding BG's and MG's peer feedback comments

	<i>BG</i>	<i>MG</i>
<i>Total number of peer feedback comments (sentential meaningful units)</i>	148	205
<i>% revision-oriented peer feedback comments</i>	33.78%	67.80%
<i>% non-revision-oriented peer feedback comments</i>	66.21%	32.19%
<i>Most common discourse function of peer feedback comments</i>	evaluation (42.57%)	evaluation (26.34%)
<i>Text area most often emphasized by peer feedback comments</i>	global (68.24%)	local (69.27%)
<i>% revision-oriented peer feedback comments with apparent link to textual changes</i>	28%	15.11%

4.7.2 Technologies' effects on participants' writing anxiety

In regards to the effect of blogging and microblogging on the participants' writing anxiety levels, the use of both technologies showed a decrease in both the BG and MG's mean writing anxiety levels. Additionally, the percentage of student writers with high writing anxiety decreased in both groups after ten weeks of using the technologies, while the percentage of those with low writing anxiety increased. When comparing the effect of blogs and microblogs after ten weeks of use, no statistically significant difference was noted in the participants' writing anxiety, as measured by the SLWAI. The qualitative data supported the quantitative findings in that the participants of both groups made little to no reference to writing anxiety. The findings regarding the BG's and MG's writing anxiety are summarized in the following table.

Table 4.18 Summary of results regarding BG's and MG's writing anxiety

<i>Mean writing anxiety level</i>		
	<i>BG</i>	<i>MG</i>
Prior to technology use	66.5	72.69
After 10 weeks of technology use	61.42	69.80
2 weeks after end of technology use	61.21	67.45
<i>% at low writing anxiety level</i>		
	<i>BG</i>	<i>MG</i>

Prior to technology use	30.77%	12.5%
After 10 weeks of technology use	44%	20%
2 weeks after end of technology use	56%	20.69%
<i>% at average writing anxiety level</i>		
	<i>BG</i>	<i>MG</i>
Prior to technology use	50%	65.63%
After 10 weeks of technology use	44%	66.67%
2 weeks after end of technology use	28%	68.97%
<i>% at high writing anxiety level</i>		
	<i>BG</i>	<i>MG</i>
Prior to technology use	19.23%	21.88%
After 10 weeks of technology use	8%	13.33%
2 weeks after end of technology use	12%	10.34%

Chapter 5

DISCUSSION AND CONCLUSION

In this chapter, a summary of the findings of the research study, along with a discussion of these results, and a conclusion, will be presented. Pedagogical implications derived from the findings and recommendations for further studies are also put forth.

5.1. Summary of the study

The present study sought to investigate the effects of the use of the Web 2.0 technologies blogging and microblogging on the writing process and writing anxiety levels of Thai EFL undergraduate learners. According to educators and theorists, each technology has features that may be potentially beneficial to learners' writing process and writing anxiety levels. For instance, the ability to comment on blogs can support collaboration, while the reverse chronology of blog posts allows rapid comparison between different iterations of a text (Z. Jones and Nuhfer-Halten, 2006). With microblogs, one can quickly update others on one's current circumstances (Ebner and Schiefner, 2008), such as one's progress in the writing process, and share and exchange resources and ideas (Dunlap and Lowenthal, 2009). Essentially, both blogging and microblogging give student writers a space for their writing to be made public, as well as the means to exchange commentary on their texts and seek

assistance any place or time there is Internet access (Dippold, 2009; Elavsky, Mislan and Elavsky, 2011).

The main objective of this research study was to determine how the introduction of blogging and microblogging would affect Thai undergraduate learners' process of writing in English and their writing anxiety levels. Both blogging and microblogging were introduced to support student writers throughout their writing process, allowing them a venue to share their work at every stage, and providing them with a channel for the giving and receiving of feedback on this work with their peers, their instructor, and other potential online readers. By implementing the use of blogs and microblogs, the study attempted to answer the following six research questions:

1. *What are the effects of blogging on Thai EFL undergraduate learners' English writing process?*
2. *What are the effects of microblogging on Thai EFL undergraduate learners' English writing process?*
3. *What are the differences between the effects of blogging and microblogging on Thai undergraduate learners' writing process?*
4. *What are the effects of blogging on Thai EFL undergraduate learners' writing anxiety?*

5. *What are the effects of microblogging on Thai EFL undergraduate learners' writing anxiety?*

6. *What are the differences between the effects of blogging and microblogging on Thai EFL undergraduate learners' writing anxiety?*

The research study ran for a period of ten weeks. During this time, two intact classes of Thai EFL undergraduate learners of both genders from the Faculty of Engineering of Chulalongkorn University in Bangkok, Thailand, who were taking the mandatory first-year course Experiential English I, utilized either blogging ($n = 24$) or microblogging ($n = 30$) to complete seven writing assignments. The participants were required to utilize either their blogs or microblogs during the writing process of each of the assignments. They were also encouraged to make posts beyond this requirement. The participants were introduced to writing as a process and were trained to give peer feedback, and asked to read and comment on their peers' writing. Data regarding the participants' writing process and writing anxiety levels were gathered via the participants' blogs and microblogs, as well as associated documents, a questionnaire on the use of the technologies, retrospective semi-structured interviews, and the Second Language Writing Anxiety Inventory or the SLWAI, developed by Cheng (2004).

It was found that blogging and microblogging had similar effects on the participants' writing process. Before using the technologies, the primary strategy used

by both groups to complete writing assignments was to compose drafts simultaneously using Thai and English. Their manner of completing writing assignments also lacked recursion and input from external sources, such as other readers. After the two technologies had been implemented, they seemed to lead to a reduction of the use of Thai during the student writers' writing process. In addition, both technologies appeared to lead to a stronger awareness of writing as a process, with blog posts and tweets chronicling student writers' progression through the stages of pre-writing, drafting, revision and editing, and publishing. References were made to activities associated with each writing process stage, such as the revision of texts. Both blogs and microblogs also allowed student writers to examine their peers' work and to receive feedback from their peers and their teacher on their own writing. Certain alterations to the participants' texts appeared to correspond to suggestions made by peers and the researcher-instructor.

Data analysis revealed that after ten weeks of blogging and microblogging, the BG and MG's participants' mean writing anxiety, as measured by the SLWAI, showed slight decreases. When examined closely, the percentages of participants with high, average, and low writing anxiety had changed after ten weeks of blogging and microblogging use. For both groups, an increase in the percentage of participants with a low level of writing anxiety was observed concurrently with a reduction in the percentage of participants with a high writing anxiety level. Overall, however, the

participants of both the blogging and microblogging group appeared to have been at an average level of writing anxiety before they were asked to use the technologies, and this level was maintained. Qualitative data from blog and microblog posts, the questionnaire, and the interviews supported the participants' average writing anxiety level, with few references to anxiety engendered while tackling writing assignments. Statistical analysis of the effects of blogs versus microblogs on the participants' writing anxiety showed no statistically significant difference.

5.2. Discussion

The findings will be discussed in relation to the six research questions that were posed at the start of the study. The following section will consider the impact of blogs and microblogs on Thai EFL undergraduate learners' writing process, as well as compare the effects of these two technologies on the same variable. The discussion will also consider related research. There will also be discussion regarding how blogging and microblogging affected Thai EFL undergraduate learners' writing anxiety levels respectively, and also how the effects of these two technologies compared. Relevant research will also be discussed.

5.2.1 The effects of blogging and microblogging on Thai EFL undergraduate learners' writing process

The first two research questions focused on how the introduction of blogging and microblogging affected Thai undergraduate EFL learners' writing process in English. In general, it appeared that blogging and microblogging had comparable

effects on the student writers' writing process. Prior to use of the technologies, most of the participants of both the blogging group (BG) and the microblogging group (MG) wrote their texts simultaneously using Thai and English. The participants of both groups had a tendency to approach writing assignments as the generation of a single written product. Little to no reference was made to revising or editing texts or the revisiting or reworking ideas, nor to the seeking of outside readers' input on their writing. However, following ten weeks of mandatory blog and microblog use, there were several apparent effects seen on the participants' writing process: the decreased use of Thai during the completion of English writing assignments, increased awareness of writing as a recursive process, and the apparent influence of exposure to others' texts and received feedback. Each of these points will be discussed in greater detail in the following sections.

5.2.1.1 Decreased use of Thai during the writing process

Before the mandatory use of blogs and microblogs was established, the participants in both the blogging group (BG) and microblogging group (MG) revealed they utilized a great amount of Thai when they completed their English writing assignments. For both groups, the most common strategy for completing writing assignments (used by 54.17% in the BG and 48.48% in the MG) was to compose texts using a combination of Thai and English. The use of one's first or native language (L1) is rather common for student writers composing in another language or L2. The L1 is used for a variety of purposes, including seeking out topics, determining appropriate

diction, and organizing information (W. Wang and Wen, 2002). For low-level learners especially, the L1 can serve as a valuable resource to draw upon when completing writing assignments (Kim, 2011). A study of Chinese female university students concluded that there was an inverse relationship between L1 use and L2 proficiency, with less use of L1 seen as L2 proficiency increased. More specifically, “less proficient writers construct sentences through L1-to-L2 translation, while proficient writers generate text directly in L2” (W. Wang and Wen, 2002: 240). Although no information was gathered on the proficiency of the student writers examined in the present study, it was promising to observe that though they had made known that they often employed Thai when working on writing assignments, the texts that they shared via their blogs and microblog posts were written solely in English.

Commentary on the texts, however, though primarily in English, also included Thai (using Thai characters), and transliterated Thai, where Thai words were written out using English letters. Examples of the latter can be seen underlined in the following excerpts from blog comments and tweets, which are presented below in their unedited form. The number “5” was used to convey laughter, as the pronunciation of the number in Thai is similar to the onomatopoeia for laughter.

lorlen na ja 555 [S9]

Ajarn, can you get into this link? [S21]

OK thx for your comment but why I can't find your role aa?? [S48]

hope this tinyurl works. work pa? 55 [S61]

Most of the transliterated Thai words were sentence final particles. In Thai, sentence final particles serve various purposes, including denoting gender, indicating informality, delineating sentence type, and conveying feelings (Yiamkhumnuan, 2011). The only other word that was transliterated from Thai was *ajarn*, which is a form of address in Thai used to address one's teachers; it was used to communicate with the researcher-instructor.

The use of Thai, both through the use of Thai characters and transliterated into English, may be due to the perception that the comments were not deemed to be part of the assignment proper, and therefore, there was no implicit requirement to use only English. It should be noted that the researcher-instructor never replied to the participants in Thai, but did use transliterated Thai in some exchanges. One interview participant in the MG disclosed that she used Thai because she found it difficult to convey her ideas exclusively in English. In communication with the research-instructor, Thai was preferred due to her inability to achieve what she felt was an appropriate level of politeness in English. Overall, however, English predominated the blogs and microblogs.

Although there is ongoing debate regarding whether or not the use of learners' native tongue in foreign language instruction is beneficial (Kim, 2011), it can be cautiously posited that the student writers' increased use of English in making

blog and microblog posts may have been advantageous. Blackstone, Spiri and Naganuma (2007: 9) argue that “[s]tudent writers developing skills in a non-native language need to be encouraged to write in that language as often as possible.” Research, furthermore, has found that grammatical accuracy, vocabulary use, and idea formulation seem to improve with prolonged exposure to a language (Fageeh, 2011).

According to Dieu (2004: 26), one of the beneficial aspects of blogs is that time spent on the platform are “moments during which you maximize focused exposure to language in new situations, peer collaboration, and contact with experts.” Fellner and Apple (2006) observed that their low proficiency, low motivation participants, who previously showed reluctance in studying the language, seemed more compelled to write in English when blogs were introduced to a seven-day intensive course they were taking. They found that these participants’ writing fluency increased significantly after the conclusion of the week-long course. All of the learners of Italian investigated by Perifanou (2009) felt that the microblogging platform was a space to practice their Italian in an authentic and creative manner, and they believed they enhanced their Italian vocabulary by using the technology. If nothing else, being required to use blogs and microblogs meant that the majority of student writers in this study likely ended up using more English than they normally would have when completing a writing assignment.

5.2.1.2 Greater awareness of writing as a recursive process

With the introduction of blogs and microblogs, the student writers also seemed to gain a greater awareness of writing as a recursive process, and not merely as the straightforward formulation of only one or two texts. “[S]tudents’ understanding of the movement from first idea to finished product is an essential feature” in a student writer’s development (R. J. Pritchard and Honeycutt, 2007: 30). Showing a stronger awareness of writing as a recursive process has been seen in other studies that have examined CMC technologies, as well. In a study of Israeli fifth-grade and sixth-grade students who used CMC to support the completion of writing assignments, the researchers concluded that such a technology, in combination with cooperative learning, “can be a powerful pedagogy for instruction of writing as a process” (Hertz-Lazarowitz and Bar-Natan, 2002: 32). One of the students interviewed in Zhang’s (2010) study regarding the use of blogging remarked on how the use of this technology led to her continual alteration of content that she shared online. She specifically noted how having only a single written product is unacceptable, demonstrating an awareness of the recursive nature of writing. The participants of the present study did not explicitly express this exact sentiment, but their behavior on their blogs and microblogs would indicate they shared a similar attitude.

In their blog posts and tweets, the BG and MG made references both to different stages of the writing process, such as pre-writing, and to activities

undertaken at each stage, such as formulating ideas. Their texts from post to post often showed changes and improvements, which indicated an understanding of the need for revising and editing their work. Such an understanding regarding the fact that revision and editing can, and does, take place at every stage of the writing process is the mark of an effective writer (Gibbons, 2005).

The results obtained in this study are in line with arguments put forth in the literature regarding blogs, which argue that this technology facilitates student writers' recursive progression through the writing process in a way that face-to-face classes may not be able to. This is because blogging supports out-of-class, time-independent writing (Ferdig and Trammel, 2004; Godwin-Jones, 2003). Arslan and Şahin-Kızıl (2010) contend that since blogs allow writing that is not tied to a time or place, they give greater opportunities for exposure to language and writing input than might otherwise exist. Such increased input may lead to a boosted awareness of one's textual problems and an inducement to remedy them. Several students studied by Ward (2004) made known they liked the way blogs allowed them to tackle writing as a process, with one student noting how she enjoyed being able to adjust her work as frequently as she desired.

While no corresponding findings regarding the encouragement of writing as a process via microblogging seem to exist in the literature, Ebner and Schiefner (2008) note that over half of the members of the group they set up on the microblogging

platform Jaiku used microblog posts as a means to arrange their ideas. This could be said to be similar to the writing process, where during the various stages, writers continually attempt to organize their thoughts as they work at composing a written text (R. J. Pritchard and Honeycutt, 2007). Wright (2010) reported on the use of Twitter to document the day-to-day teaching experiences of eight graduate students of teacher education. The microblogging platform served to capture their ongoing process of developing self-reflective practices. In another study, Ebner, Lienhardt, Rohs, and Meyer (2010) observe that a large number of student-to-student private messages were sent via the microblogging platform utilized in their research with Austrian graduate students. They postulate that these messages might have led to opportunities for learning about class-related topics to take place as the participants communicated with each other on these topics. It might be speculated that in using the microblogging platform to communicate about their writing, the Thai undergraduate learners of the study under discussion similarly gained insight into their self-produced texts, which may have moved them to modify their work.

5.2.1.3 Impact of access to peers' texts

Aside from an increased recognition of the continual nature of the writing process, the act of writing became a more public activity with the implementation of the two technologies, opening up opportunities for student writers to explore the writing of others. These opportunities possibly allowed for the incorporation of additional ideas from the consideration of others' texts.

A number of the participants revealed that they took advantage of the public nature of the technologies to examine their peers' writing. According to Du and Wagner (2005), being able to access peers' work via blogs benefits learners in a number of ways, including helping them to judge their relative performance level against their peers and giving them ideas for better learning practices. Advanced German learners investigated by Dippold (2009) utilized blogs in order to examine their work alongside that of their peers. The blog posts of peers served as models for the ESL (English as a second language) learners in Jones's (2006) case study to follow, showing what they were required to write, and also, how to write it, which were points also raised by BG participants. Some of the Peking University students interviewed by W. Zhang (2010) after using blogs as part of a digital research project revealed that visits to their peers' blogs motivated them to improve their own work, once they had observed their peers' progress. Similarly, the microblogging platform can be used to chart one's learning progress, as the participants in Ebner, Lienhardt, Rohs, and Meyer's (2010) research did, but conceivably also that of others.

The participants of the present study revealed that they would visit their classmates' blogs or read the texts shared via their microblog posts in order to compare their own progress with that of their peers, similar to how one of the participants in Deng and Yuen's (2010) research disclosed that blogging helped he/she trace not only his/her own progress during their teaching practice, but that of

his/her fellow student teachers as well. Thus, the introduction of blogs and microblogs gave these participants the benefit of being able to compare their work to others' at every stage of the writing process. While it was beyond the scope of this study to make conclusions regarding the student writers' viewing of their classmates' posts and subsequent action taken on their own texts, it is highly heartening that they took the initiative to examine their peers' work. Doing so opens up the potential for student writers to pick up ideas and/or strategies they can apply to their own writing.

The realization of this potential is supported by the literature on both blogging and microblogging. Through reading Spanish blogs, the learners in Jones and Nuhfer-Halten's (2006) study were exposed to technological terms in that language, which they were able to utilize. Over 80% of the French learners investigated by Lomicka and Lord (2012) disclosed that they learned a great deal from reading others' tweets and replies. Therefore, the fact that the participants had access to their peers' texts, and took advantage of this access, may have had an influence on their writing process.

5.2.1.4 Impact of feedback

Aside from giving them access to the texts generated by their peers, which may have had an impact on their own work, the technologies also allowed the student writers to receive feedback that may potentially have led them to modify their own texts. From a sociocultural perspective, the feedback the participants were

presented with may have acted as a form of scaffolding for their revision efforts, as their peers and the researcher-instructor provided them suggestions that may not have occurred to them on their own, and these suggestions may have facilitated their accomplishment of the writing assignment. The feedback, thus, may have helped them to traverse their zone of proximal development—the space between what a person is able to achieve on his/her own and what he/she can accomplish with the aid of more capable or experienced others (De Guerrero and Villamil, 2000; Warschauer, 1997). Although even when lacking direct feedback, student writers are still capable of effectively revising and editing their work (Hyland and Hyland, 2006), feedback from both peers and teachers can not only help point out potential problems in texts that student writers may miss, but heightens the sense of audience and aids in critical thinking (N. Lee, 2009; Mahfoodh and Pandian, 2011; Mendonça and Johnson, 1994). These factors would be beneficial not only to the student writers' texts, but to their growth as writers as well.

Before blog and microblog use was implemented, there was no mention by the student writers of asking for outside commentary on their texts. The ability to read and comment on each other's work, however, is a key feature of both blogs and microblogs. Research has found that this capability is often perceived favorably by learners, and can possibly lead to positive academic outcomes. For example, receiving comments via the commenting functionality on blogs was “enjoyed” or

“liked” by all the learners studied by Pinkman (2005), and was suggested by the researcher to support greater interest in and motivation to use English, the participants’ L2.

After the introduction of the blogging and microblogging technologies, which allowed the exchange of ideas on a text, a desire for feedback was observed through the participants’ explicit (either specific or general) requests for peers and the researcher-instructor to read and comment on presented texts. Having peers read and comment on texts is often cited by student writers as one of the blog features they greatly appreciate (Blackstone, Spiri and Naganuma, 2007). Indeed, the use of blogs as a feedback channel has been explored by a number of studies, and in general, has been received rather favorably. Student writers often like reading the comments left for them, and observe how the comments they receive on their blog posts give them alternative viewpoints and new ideas to consider in their writing (Dippold, 2009; Kitchakarn, 2013; Liou and Peng, 2009). The reception of blogs as a channel for the exchange of feedback in this study was similar, with BG participants’ perceptions of this technology’s usefulness as a channel for the exchange of feedback with both peers and teachers tending towards the positive.

The microblogging technology was also perceived as rather useful for giving and receiving feedback by the MG participants. Though there is still relatively little literature on the use of microblogging in writing instruction, it is noted that

microblogging has already shown promise as a channel for quick, spontaneous discussion on specific topics (Costa, Beham, Reinhardt and Sillaots, 2008). In one of the few studies where the use of microblogging in writing instruction was investigated, Waller (2010) implemented Twitter with Year 2 students struggling with writing. Some readers chose to offer feedback on the work the students posted. It was concluded that, over time, having their work put online fostered the young students' awareness of the purpose of writing, as well as a sense of writing for an audience that extended outside their classroom.

The feedback seemed to be of great importance to the participants. Several participants in both the BG and MG even asked the researcher-instructor explicitly in the face-to-face classroom that she provide more detailed feedback regarding their writing assignments. This was a similar phenomenon to that observed by students using blogs in Ballou, Holthouse, and Marlowe's (2011) study; the Japanese university students they investigated desired more grammar correction by the teacher on their blogs. Fellner and Apple (2006: 24) relate how after blogging had been introduced with a group of Japanese university learners, "the instructors witnessed many students demand that their classmates write comments on certain posts—students would often stand up and walk to another student's computer to find out why their classmate hadn't responded yet to a posted message." Some of the participants in this study shared similar sentiments anonymously on the blogging and microblogging

use questionnaires when asked to identify problems with their respective technologies, noting the dearth of comments discussing their texts. This would seem to support their desire for more feedback. As both peer and teacher feedback have been found to have a range of benefits, including supporting successful revision, enhancing a sense of audience, and motivating student writers (A. Becker, 2006; Hyland and Hyland, 2006; Nicol, 2010), it was encouraging to see these participants actively seeking commentary on their texts.

The feedback that the student writers received appeared to influence alterations to their texts. For instance, one student writer in the BG reduced the length of his text from 835 words to 230 words after this aspect of his assignment was remarked upon by both a peer and the researcher-instructor. One MG student writer had written a sentence that included the phrase “he was cancer”. A comment tweeted by her peer made specific reference to this phrase, and offered the alternative phrase “he was sick of cancer”. In the following draft, the student writer had changed the problematic phrase to the one put forth by the peer. These examples serve to show that some of the revision-oriented comments made by peers via the comment function on the blogging platform and via the microblogging platform seemed to have led to modifications in the student writers’ texts, a phenomenon also observed by Nguyen (2012) in a blogging study with 11 Vietnamese learners of English.

In all, 28% of all revision-oriented comments generated by the BG and 15.11% of those tweeted by the MG showed ostensible connections to observed textual modifications. The adoption rate of received feedback was relatively low when compared to the figures reported by Liou and Peng (2009), who had introduced blogs as a channel for peer feedback with their 13 Chinese learners of English. Their participants utilized 48.9% of the revision-oriented comments made by their peers on their blog posts prior to receiving peer review training, and 47.7% afterwards. However, the finding in this present study that some of the feedback the student writers received appeared to correspond to revisions they subsequently made to their texts is more promising than that of Wu (2006), who could find no discernible relationship between peer comments left on blog posts and revised texts. No data on the adoption rate of feedback given via microblogs has been located, but one of the experiences Dunlap and Lowenthal (2009) detailed while using Twitter in an online instructional design and technology courses was that of a student perplexed over how to embed music into a slideshow presentation. Once he had tweeted a question on this issue, he was directed to several online resources by a more informed person, and 30 minutes later, he had successfully embedded the music. This would seem to point to how information gleaned from online microblog posts can have an effect in the offline world.

Liou and Peng (2009) argue, however, that the link between a change in a student writer's text and a comment from a peer or some other person can only be, at most, speculation. Wu (2006) concurs with this viewpoint, going into substantial detail regarding the difficulties of determining empirically the effects of various types of feedback on students' writing. This is due to the fact that "[i]n some cases, when students take the time to read through their own writing carefully enough, they can spot problems and improve their essays" (Liou and Peng, 2009: 521). Thus, though there seemed to be links between the comments left on blog posts and the student writers' texts, it is not within the purview of this study to conclude that they were directly related.

5.2.1.5 Summary of the effects of blogs and microblogs on participants' writing process

In summation, the manner in which blogs and microblogs seemed to affect the student writers' writing process was highly similar. Both allowed student writers a virtual space to share their work and receive commentary on it, which seemed to encourage greater use of English in the generation of texts, fostered a stronger awareness of writing as an iterative process, and gave them the opportunity to incorporate ideas from outside sources. It should be noted, however, that the BG and MG participants' strategy for completing English writing assignments prior to the introduction of both technologies already shared a number of similarities. Therefore, it would seem difficult, within the confines of this study, to distinguish the effects of

the two technologies on student writers' writing process with this particular set of participants.

5.2.2 Differences in the effects of blogs and microblogs on participants' writing process

The focus of the third research question was on whether blogging and microblogging had different effects on the writing process of the investigated student writers. While, as noted in the previous sections, the effects of the two technologies on the participants' writing process were highly similar, there were areas where the blogging group and microblogging group differed. These differences were seen when peer feedback was exchanged, in the timeframe of revision efforts, and in how the members of the two groups utilized their respective technologies.

5.2.2.1 Differences in peer feedback exchanges

The key differences seen between the BG and MG regarding the exchange of peer feedback was the latter group's greater amount of explicit feedback requests and the differences in the types of feedback each group offered. The MG made a greater percentage of revision-oriented feedback comments, i.e. comments that posed suggestions for textual changes to their peers.

As noted, there were ten explicit requests for feedback tweeted by the MG, four more than seen from the BG. That there were a greater number of explicit requests from the MG may be tied to the nature of the microblogging platform used in this study. Honeycutt and Herring (2009) discovered that in typical Twitter use,

conversations are normally dyadic, as the interface of the platform does not lend itself to discussions with a larger number of interlocutors (although it can occur). In addition, unlike blogs, all of an individual user's Twitter posts are delivered to every single one of his/her followers. As all of the student writers were following each other, as well as the researcher-instructor, the amount of posts any individual participant received at any one time may have been daunting, and may have caused information overload, which a percentage of participants studied by Costa, Beham, Reinhardt, and Sillaots (2008) pinpointed as a negative aspect of Twitter. If the MG participants were aware that their peers were suffering the same difficulty, the explicit feedback requests may have been an attempt to distinguish themselves within the large volume of messages in order to receive the assistance they desired.

Aside from having more explicit feedback requests, the MG also had a higher percentage of revision-oriented feedback comments. This is despite the fact that Twitter, the microblogging platform used in this study, does not easily facilitate continuous, threaded discussion, unlike Wordpress, this study's selected blogging platform. For those who used a blog, giving feedback was rather easily accomplished by simply logging onto the website, reading the peer's text, then clicking on the *Leave a comment* button (located beneath the text) to share their opinions on the text. For the BG, reading and commenting could even take place concurrently, as the Wordpress website allowed a post and its associated comments to be displayed

simultaneously. A number of responses on the blogging use questionnaire noted that leaving comments for peers on their blogs was not difficult, as in the following anonymous example (translated from Thai):

It's very good. I can send my work quickly and it's easy to make comments.

The ease of exchanging feedback using blogs has been identified by a number of blogging studies, including Fellner and Apple (2006) and Kelley (2008), though Carney (2007: 118) contends that “the post-comment structure leads to interesting yet very short exchanges.” The potential for longer, more involved conversations, however, is greatly aided by the relative straightforwardness of the steps required to comment on a blog post. Such conversations have been seen in the literature, as observed in a study that examined learners’ use of blogs on the popular site Cyworld in order to facilitate Vietnamese language learning. It was noted that extended conversations ensued when initial comments made on blog posts garnered responses, that in turn sparked new ideas, additional responses, and so on (Le Ho, 2009). The exchange of feedback can just as easily be accomplished on blogs, and the BG participants lent support to the realization of this potential.

The feedback exchange process for those using Twitter, however, was slightly lengthier. The student writers first had to log in, read through a series of tweets from the peers they were following, as well as the researcher-instructor, select a post that detailed a writing assignment, click on the link that led to the file-sharing site hosting

the text, then proceed to offer their comments to the peer who wrote the text. As can be seen, this feedback process is decidedly longer and more involved than the BG's. Despite this, revision-oriented comments made up a smaller percentage of the total amount of peer feedback comments the BG made. The MG had a higher percentage of revision-oriented comments and also, a greater amount of their comments focused on local aspects of their peers' texts. This may have been due to the nature of the microblogging platform, which restricts the length of messages and necessitates a degree of succinctness (Ebner, Lienhardt, Rohs and Meyer, 2010; Thoms, 2012). The platform's restrictive nature may have compelled the student writers to focus on the work at hand, resulting in a higher amount of revision-oriented comments being made. Additionally, many of the feedback tweets almost appeared to follow the student writer's reading of their peers' texts. That is, they seemed to be using the microblogging platform to chronicle their ongoing reactions to the texts, taking advantage of the technology's ability to record "moment-to-moment experiences" (Dunlap and Lowenthal, 2009: 47). Many of these immediate reactions were suggestions on how the texts could be modified.

Still, though the BG registered fewer revision-oriented comments, a higher percentage of these seemed to lead to changes in the participants' texts. Liu and Sadler (2003) also found that participants who employed technology during their feedback exchange were more likely to act on the comments they had received. For

the present study, the greater percentage of changes linked to comments may have been connected to the fact that the majority (68.24%) of the BG's peer feedback comments touched on global areas of the text. Liou and Peng (2009) found in their study that used blogs as a channel for peer feedback that their participants also gave many global feedback comments, and the student writers also gave greater attention to revising global aspects of their texts.

5.2.2.2 Differences in timing of revisions

Another difference between those who used blogs and those who used microblogs that was observed was regarding the apparent link between feedback and revisions. Although some of the feedback received by the BG and MG participants seemed to be incorporated into their texts, there was a phenomenon observed for the latter group that was not seen in the former. For the MG, it was noted that in six instances, the revisions that seemed to show an apparent connection to received feedback were not undertaken in the successive posts. For example, one student writer wrote the following sentence:

I tried to find my son [S59]

A peer read her text and made following revision-oriented comment on it, suggesting that she add a period to the end of the sentence (translated from Thai):

Don't forget a full stop after i tried to find my son [S44]

In the draft that followed chronologically after her peer's comment, the sentence in question remained unchanged; that is, still lacking the proper punctuation. However, in the draft that came after that, the sentence saw the addition of a period, just as suggested by the peer. Although, as already observed, there can be no definitive statements made regarding the motivation behind the student writers' revisions, it can be seen that the change that was made appears to bear a connection to the peer's comment. Yet, the change was delayed until the second text produced after receipt of the comment. This is an intriguing finding that, even though it occurred only a few times, would appear to differentiate the use of microblogging from blogging.

If it is postulated that the changes that were seen were indeed linked to received comments, then the question of why the changes were deferred to a non-consecutive draft arises. Why did the student writers not attempt the revisions in the texts composed immediately after they had received the feedback? Part of the answer may lie in how Greenhow and Gleason (2012: 472) characterize the messages on Twitter (and by extension, all microblogging platforms) as "a constantly evolving, co-constructed conversation". Such a conversation may be slightly overwhelming, and could have led to information overload, a phenomenon that is not unknown in the literature on microblogging (Costa, Beham, Reinhardt and Sillaots, 2008). Delaying revisions may have some connection with this phenomenon.

Furthermore, the student writers may not have taken feedback into immediate account simply because they may have overlooked it at first. As noted, all of the 35 MG participants were “following” each other on Twitter. Every time they signed in, they would be shown all the posts made by every single person in the class, as well as those of the researcher-instructor. Conservatively, that would mean they were reading at least 35 posts (one post per person) each time they logged onto the Twitter website. In addition, it should be noted that the MG posted a greater percentage of revision-oriented comments when compared to the BG. In fact, whereas revision-oriented comments made up only a little more than a third (33.78%) of the feedback comments posted by the BG, revision-oriented comments accounted for more than half (67.80%) of the feedback comments tweeted by the MG. This may have led to difficulties with identifying pertinent feedback, and subsequently, incorporating it. Honeycutt and Herring (2009) reported on a 32-post long group conversation that occurred on Twitter that they noted was highly complex, with messages overlapping temporally, and several other conversations branching off from the main one. They note how topical coherence could suffer with a larger number of people in the conversation, which may have been the case for the MG.

5.2.2.3 Distinctive uses of the technologies

Another difference observed between the BG and MG was the way some of the members of the latter group utilized the microblogging platform. The use of

blogging by the BG participants was similar to findings reported in the literature. The blogs were used to document the participants' experiences while completing writing assignments, much like how the 13 student teachers studied by Deng and Yuen (2010) used it to record their experiences during their teaching practice. The blogs were also used to share their own texts, and through the commenting functionality, to give and receive feedback on their own and others' written work. These are blog uses that have been chronicled in a number of studies, including Pinkman (2005), Blackstone, Spiri and Naganuma (2007), Kelley (2008), and in the Thai context, Kitchakarn (2013). Microblogging use by some members of the MG, however, showed a degree of distinctiveness when compared to their BG counterparts.

One observation made regarding participants of the MG group was the reluctance of certain student writers in utilizing the microblogging platform. As noted, there were eight participants who used the microblogging platform mainly to tweet regarding their own texts. They all entered into dialogues with their peers via microblogging, but any comments they offered regarding their peers' texts were non-revision-oriented. That is, they did not make any microblog posts that could be categorized as peer feedback. There was also one particular MG student writer who simply refused to utilize the microblogging technology, even at the risk of being penalized academically (as microblog use was tied to the student writers' participation score). He sent a total of three tweets and did not comment on any of

his peers' work, even when explicitly asked to. These findings contradict those of Lomicka and Lord (2012). In their study, the participants for whom Twitter use was mandatory tweeted more than the group for whom its use was voluntary. They also seem to challenge the implication drawn by Junco, Elavsky and Heiberger (2013), which was that mandatory use of Twitter is necessary if one wishes to see academic outcomes. The use of microblogging was mandatory in this study, and yet there were individuals who still utilized it less than was minimally required, and seemed unfazed even by the fact that their final course grade would be adversely affected.

A relative lack of familiarity with microblogging may have played a part in this hesitancy. Only a small percentage of the surveyed MG participants (15.15%) had ever used Twitter before it was implemented in their Experiential English I course, while 37.5% of their BG counterparts revealed they had used blogs before. Lacking familiarity with microblogging is not automatically equated with a lesser desire to use the technology, as only 23.08% of the participants in a study by Lomicka and Lord (2012) had ever heard of it before they used it, as well, but following a semester of Twitter use, 61.54% of the group revealed that they enjoyed using the platform, and one participant even admitted to constantly checking the platform. Still, the literature on microblogging in educational contexts has found similar levels of unfamiliarity with Twitter as detected in this study, which, when coupled with the sense that the platform is a difficult and daunting one to use, appeared to contribute

to a subsequent hesitancy to exploit the technology (Gao, Luo and Zhang, 2012). Contrarily, blogs are often met with a positive response when introduced to an educational setting—seen as enjoyable and motivating (Armstrong and Retterer, 2008; Ward, 2004)—even when learners have relatively limited knowledge of the technology (Dippold, 2009). The fact that over a third of the BG had used blogs before suggests a level of ease with using the technology, though it should be noted that none of the participants had ever used it for academic purposes prior to taking the Experiential English I course. The most common function of blogs before they took the course was to keep updated on news regarding their friends and acquaintances. Thus, the use of this technology to aid in the completion of writing assignments was a new experience for the BG participants, just as the use of microblogging was novel for the MG. Still, it might be speculated that the prior experience some of the participants had with the technology may have predisposed them to taking a favorable view towards using it. Certainly, it has been noted that if experience with a technology is limited, students may waste time and energy mastering basic elements required to deal with the technology, which may hinder the achievement of other, academically-oriented goals (S. J. Jones, 2006). Since so few student writers had ever used Twitter before the Experiential English I course, such a predisposition may not have existed in the MG in regards to microblogging, which could be why a level of aversion towards their technology was detected in that group. Neither of these conjectures can be concluded definitively, but as

already stated, seven of the 35 MG participants, or fully 20%, explicitly promoted the use of an alternate technology, with one of their reasons being that they were already acquainted with it.

Another factor that may have contributed to the MG's reluctance to use microblogging was the specific site that was chosen. There are a number of microblogging platforms available, such as Tumblr, Jaiku, Edmodo, Yammer, and Cirip.ro. Of the latter three, Edmodo has been customized for use in educational contexts, and Yammer and Cirip.ro have been investigated for use in academic settings (Holotescu and Grosseck, 2009; Perifanou, 2009; Vorvoreanu, Bowen and Laux, 2012). However, Twitter is by far the most-used and most-researched of the available microblogging platforms (Gao, Luo and Zhang, 2012; Saeed and Sinnappan, 2011), which is why it was the platform selected for use in this study. However, the MG participants were of the belief that Twitter lacked popularity in Thailand, as exemplified by the following MG participant's rationale for why he would not advocate future Twitter use (translated from Thai):

Twitter in Thailand has very few users. There are many other channels to send work to the teacher.

In actuality, though, Thailand ranked twenty-fifth worldwide for number of Twitter users in the year 2010 (Lim, 2010). In 2013, furthermore, there was an estimated 35% increase in the number of Thai users from the year 2012 (Sakawee,

2014). The platform, however, has earned a somewhat negative reputation in the country, as the Thai government was one of the first in the world to support the country-specific censorship of tweets (Hodal, 2012). In addition, it appears that the majority of Thai Twitter users are on the platform to follow the posts of celebrities. As of early January 2014, the Thai user with the largest number of followers on Twitter (approximately two million) was Nichkhun Horvejkul, the Thai member of Korean pop boyband 2PM (Sakawee, 2014). It could be said that the image that Twitter projects in Thailand, specifically, may not have been felt to be conducive to its application in an educational setting. This unfavorable impression of the chosen microblogging platform (which is an issue that would appear to be specific to the research context of Thailand) may have played a part in the student writers' hesitancy to use the technology.

The offline personalities of the student writers may also have factored into the use of the microblogging platform. It was noted that the participant who sent only three tweets was a highly reserved individual and often asked to complete assignments alone. At the opposite spectrum, there was one student writer in the MG who tweeted more frequently than any other of the student writers. In total, she [S29] sent 112 tweets; the second greatest number of tweets, which was 73, was only slightly more than half of what this participant posted. It was observed that this particular student writer had a strong confidence in her English ability, and was an

active, enthusiastic member of the class. The student writer who sent the second greatest number of tweets had similar personal characteristics. In fact, of the top five participants who sent the largest number of tweets, four were seen to be some of the most active members in the face-to-face class. Such an ostensible connection between one's microblogging behavior and one's personality has been postulated in the literature and supported by research findings. According to Qiu, Lin, Ramsay and Yang (2012: 716), "tweets contain valid linguistic cues to personality". In their study, the personality traits of microbloggers could be accurately judged by people who had no association with them, with, for example, raters being able to accurately judge whether or not a microblogger was an extravert. The results of the present study would seem to support the researchers' conclusion that one's online tweeting behavior is a manifestation of one's offline personality, as the student writer who posted the greatest number of tweets also happened to be one of the students who was observed to show great enthusiasm for learning English. On the other hand, the student writer who tweeted the least (and essentially abandoned the platform) was one of the more reserved people in the class. It might be cautiously presumed that his refusal to participate in the online component of the writing assignments was a reflection of his offline persona.

Furthermore, it was seen that over half of the most active participant's [S29] tweets (58.04%) were directed at only two individuals. (The participant who sent the

fifth highest number of tweets—53 in total—was actually one of these individuals.) All three of these student writers exhibited a close friendship, sitting together in the face-to-face class and working together on assignments when the students were allowed to form their own working groups. This would seem, again, to point to how offline issues can factor into the use of online technologies. In this particular case, the three student writers appeared to move their offline friendship onto the online microblogging platform.

Essentially, the greatest difference in how blogs and microblogs was used was in how the latter technology was not exploited as much as the former. A number of factors might possibly have accounted for the MG's reluctance, including a lack of familiarity with the technology, the unfavorable impression of Twitter in Thailand, and the particular personalities of the student writers under investigation.

5.2.3 The effects of blogging and microblogging on Thai EFL undergraduate learners' writing anxiety

The focus of the final two research questions was on how the implementation of blogs and microblogs would affect the writing anxiety levels of Thai undergraduate EFL learners. Overall, neither blogs nor microblogs appeared to have a strong effect the participants' mean writing anxiety. Both groups' writing anxiety levels, as measured by the Second Language Writing Anxiety Inventory (SLWAI), did show some changes after ten weeks of technology use, but essentially, their level of writing anxiety appeared to be maintained (which, in the case of these

participants, meant their average writing anxiety went unaltered). This is consistent with the results obtained from Kelley's (2008) research. The undergraduate learners of that study displayed no statistically significant difference in their writing anxiety levels after the implementation of blogging. No data has been discovered regarding the effect of microblogging on writing anxiety, and thus, the results of this study regarding microblogging cannot be compared against the literature.

What was noted was that the mean writing anxiety levels of both the BG and MG fell from their baseline levels after blogs and microblogs had been in use for a ten-week period. Their level of agreement with the individual items on the SLWAI reflected these fluctuations. For the BG, before they were required to use blogging, the statements they showed the greatest levels of agreement with dealt with finding opportunities to write in English outside the classroom. This already showed a level of willingness to use English in composing texts, which corresponds to lower writing anxiety. With the introduction of blogs, a space for them to write in their target language beyond the physical classroom (Arena and Jefferson, 2008), they were afforded these desired opportunities, which may be speculated to parallel the drop seen in the BG's mean writing anxiety. Similarly, before microblogging use was implemented, the MG showed agreement with statements on the SLWAI that revolved around apprehension engendered from the pressure of time and external

evaluation. Following ten weeks of microblog use, these concerns had not wholly vanished, but each of the statements showed a slightly lower level of agreement.

To examine these reductions more closely, the participants' individual SLWAI scores were used to categorize them as possessing high, average, or low writing anxiety, using the criteria set by Atay and Kurt (2006). When these individual scores were categorized, it was discovered that the percentage of those with high writing anxiety had reduced for both groups, while the percentage of those with low writing anxiety had risen. The use of technologies appeared to have an effect on the two ends of the writing anxiety spectrum, though overall, there was a great number of student writers with an average level of writing anxiety in both groups, and this remained unchanged with the introduction of blogs and microblogs.

5.2.3.1 Maintenance of average writing anxiety level

The data showed that the majority of student writers in both the MG and BG were at an average writing anxiety level before they began using their respective technologies. This level was maintained both ten weeks after mandatory blog and microblog use, and two weeks after technology use was ended. Average writing anxiety may be interpreted as a level of anxiety that straddles the border between facilitative, or helpful, and debilitating, or prohibitive, anxiety. Some researchers have postulated that having a certain amount of anxiety in place can actually be beneficial, helping to facilitate the motivation to learn, which consequently leads to improved performance (Marcos-Llinás and Garau, 2009). However, the level of

anxiety must not be such that it obstructs a student writer's development (Negari and Rezaabadi, 2012).

Almost none of the participants in this study appeared to have such an issue with writing anxiety that they felt the desire to utilize the blogging or microblogging platform to address it, even though the technologies were implemented partially to fulfill this purpose. There were very few blog posts and tweets that contained statements that could indicate writing anxiety. The interviewed participants from both the BG and MG made reference to anxious feelings in regards to writing, but they also spoke of ways they remedied these emotions, thus possibly ameliorating their possible negative impact. These data would seem to lend support to the finding that most of the participants were at an average, or tolerable, level of writing anxiety, suggesting that they did not feel the need to seek affective support via the technological platforms they used.

5.2.3.2 Possible factors contributing to maintenance of average writing anxiety levels

Despite this study's findings, however, the maintenance of average writing anxiety levels throughout the course of the study could not be definitively linked to either blogging or microblogging. There were, however, factors of the technologies that might possibly have contributed to the student writers' sustainment of their average writing anxiety levels.

Particular features of the technologies that were introduced may have played a part in sustaining the student writers' tolerable level of writing anxiety. In their study, Fellner and Apple (2006) speculate about the impact of the slight delay between the generation and appearance online of blog posts and comments. They (2006: 24) posit that "this seemed to create a kind of 'facilitating' anxiety, as it made students more anxious to write blog entries and to write comments in English" and note further how this was important progress for their low motivation participants. Certainly, the public nature and communication opportunities afforded by both of the technologies seemed to make the act of writing less of a solitary act than it normally is (Hirvela, 1999). A sense of loneliness while engaged in the writing process is believed to contribute to writing anxiety (Hjortshoj, 2001). Through the posts themselves and the commenting functionality of the blogging platform, the BG were able to engage in dialogues with their peers and the researcher-instructor regarding their texts, rather than composing them essentially alone. In a sense, the blogs may have helped them see they were not navigating the process of completing their writing assignments all by themselves. For instance, one student writer in the BG left the following comment on his peer's blog post, which is presented in its unedited form (the / indicates a line break):

I like your idea / I'm going to do this too. [S25]

This comment could have served as a show of solidarity to the student writer who received it, which may have had an effect on his writing anxiety level. Blogs were perceived to help the Thai student writers examined in a study by Kitchakarn (2012) learn together with their peers as they worked at improving their summary writing ability. The microblogs in the present study were used by MG student writers to seek help when problems arose, not only with writing, but also with technological aspects, similar to how they were used by the participants investigated by Ebner and Schiefner (2008). Even if the participants of the present study were not seeking out assistance (which they could do, and relatively easily), through blogs and microblogs, they were privy to the progress of others, which likely helped reassure them that they were not alone in their endeavors.

What could be seen, furthermore, was that the general atmosphere on both the blogging and microblogging platforms was both amiable and supportive. Like Smith's (2008) students who used the blogging space to reassure each other regarding a worrisome oral presentation, the BG participants of this study often used the comment section of the blogs to encourage and emotionally support each other. Praise and compliments were frequently seen, similar to what Wu (2005) discovered when implementing blogs with a group of low-intermediate English as a foreign language learners. Blogs gave the participants studied by Kelley (2008) a greater sense of community and congeniality. For the MG, their tweets showed some

evidence that they were also using the platform to lend support to their peers, using the @ sign, to direct encouraging or consolatory messages to specific student writers, as in the following tweet, presented unedited except for the removal of a participant's name (replaced by **name**):

*FIGHTING NA **name**! hope you finish ur homework perfectly na <3*

Aside from these encouraging comments, the microblogging platform was used to interact in ways that were outlined by Rodems (2011) as being beneficial, such as reminding each other about various assignment-related issues. For instance, one interviewed participant in the MG revealed that she had actually forgotten about one writing assignment, and was only reminded of it when she saw a tweet from her peer discussing it. This may have helped ease participants' writing anxiety.

Suggesting ways their peers' texts could be improved or asking for clarification of certain points was also done in an affable manner, as seen in the following blog comments and tweets. (It should be noted that consecutive tweets have been combined for clarity, but all of these comments and tweets are presented otherwise unedited.)

You done well. There is no major suggestion of me, There are just some minor suggestions. [S1]

The essay is quite wonderful. But the problem is in essay, you should write in full words like I'll reveal... to I will reveal ... and so on [S20]

just read your work....Mannn!! So splendid 555 but I think there are some mistakes in the second paragraph. [S37]

U r smart Is reference of ur website really trustworthy? [S48]

The combination of writing-related advice and supportive comments such as these may have been of benefit to the student writers' apprehension levels

All of the interviewed participants, both from the BG and MG, referenced the usefulness of their particular technology as a channel for giving and receiving feedback, and as noted in Chapter 4, there appeared to be a link between the received feedback and subsequent alterations to text. It might be cautiously speculated that a potential connection could also exist between the supportive comments the student writers received and their writing anxiety levels. That is, being praised and complimented in the comments left on their blogs or in tweets directed at them may have had some effect on the student writers' writing anxiety levels. Abdel Latif (2007: 76) put forth the argument that "computer-based teaching of writing may foster the writing classroom supportive environment that could exert a positive influence on [student writers'] writing affect".

However, whether the support the participants showed each other via their technological platforms had a *positive* influence on their writing anxiety levels could not be concluded from the findings of this research, as no statistical significance was uncovered between the baseline writing anxiety levels and those collected after ten

weeks of technology use. However, as noted, their average writing anxiety levels—which could be said to be tolerable levels—were maintained. Even if the introduction of blogs and microblogs had no effects that were statistically detectable on the participants' writing anxiety levels, at the very least, it would seem that they did not adversely affect them.

5.2.3.3 Impact of technologies on participants with high and low writing anxiety levels

An intriguing trend was suggested by the changes in the outlying groups (low and high level anxiety) of both the BG and MG. For the BG, the percentage of participants with low writing anxiety increased over the course of the study, and two weeks after mandatory blogging had ceased, a little more than half of the participants surveyed were at this level. In the MG, a similar trend was noted, with the percentage of student writers with low writing anxiety increasing after ten weeks of microblogging, and the percentage of those with high writing anxiety falling after the same period.

It may be speculated that the public nature of the technologies helped the student writers to see that others were also overcoming similar obstacles as they were during the writing process. This may be similar to how the participants in a study on the use of Twitter by Junco, Heiberger and Loken (2011) utilized the platform to express apprehension over an upcoming examination, and came to the

realization that others shared their anxious feelings. Such a discovery may have led to an easing of the participants' anxiety—which would manifest in an increase in those with low writing anxiety, and a decrease in those who had high writing anxiety.

Although no data regarding the use of microblogging and writing apprehension levels has been discovered, the results of the present study seem to correspond to findings and speculations reported in the literature on blogging and writing anxiety. The majority of the participants in Kelley's (2008) blogging research also did not feel undue apprehension about writing in English. In addition, they began the study with rather strong self-efficacy in writing and a good sense of community. No statistically significant differences were detected in their anxiety levels after they had used blogs. The researcher speculated that the implementation of blogging could have a stronger impact on participants who were lacking the latter two attributes and who felt highly anxious about writing. It would seem the results of the present study support his supposition, as the percentages of BG participants with high writing anxiety dropped over the course of the study. Furthermore, the percentage of student writers with low writing anxiety also appeared to be affected, which would seem to back Kelley's (2008: 126) conclusion that "[t]here is clearly an aspect of blogging that is related to affective states".

The results of this study, insofar as they coincide with what was found by Kelley (2008), as well as his conclusion, would seem to warrant a cautious

postulation that blogging may have some link with writing anxiety. More specifically, that it may be able to help mitigate or reduce feelings of apprehension that are engendered by the act of writing, which is why the percentage of highly anxious writers fell, while the percentage of those with low writing anxiety rose. The small sample size, however, makes it difficult to draw any clear conclusions. However, even though a great number of student writers of the BG were at what could be conceived of as a tolerable level of writing anxiety, there does seem to be potential for writing anxiety levels to reduce with the introduction of blogging. Whether this is also true for microblogging or not cannot be concluded, but considering the similar trend observed for MG participants with high and low writing anxiety levels, it might seem such a claim would have merit. It must be noted, however, that a comparison of the effect of blogs and microblogs on participants' writing anxiety levels yielded a result that, while not statistically significant, tended towards significance. This would appear to suggest some variation in these two technologies' impact on writing anxiety.

5.2.3.4 Summary of the effects of blogs and microblogs on participants'

writing anxiety

Overall, the use of blogs and microblogs did not appear to have an effect on the participants' writing anxiety. Even though the mean level of writing anxiety for both groups showed slight declines after ten weeks of using their respective

technologies, the mean level of writing anxiety they began the study with, which could be categorized as average writing anxiety, was maintained. This maintenance may have been due to a number of factors, including the relatively supportive and affable atmosphere maintained on both the blogging and microblogging platforms. What was noteworthy was that after using the technologies, those at the extremes of the writing anxiety spectrum showed some shifts, with the percentage of those with high writing anxiety falling as the percentage of participants with low writing anxiety rose.

5.2.4 Differences in the effects of blogs and microblogs on participants' writing anxiety

The last research question was concerned with whether or not the student writers' writing anxiety was affected differently by the use of blogs or microblogs. A statistical analysis was run to determine if when the effect of blogs on writing anxiety was compared to the effects of microblogs, a difference would be detected. The result of the statistical analysis was that there did not seem to be a statistically significant difference between the effects of blogs versus microblogs.

This may be due to the similar manner in which the participants of the present study utilized the two technologies. It has been contended that microblogging is “a natural extension to blogging” (Thoms, 2012: 181), and the way microblogs were used by the MG participants would seem to lend some support to this assertion. The greater immediacy afforded by the brevity of microblogs, which

has been argued to facilitate more rapid information sharing (Ebner and Schiefner, 2008), did not seem to be fully exploited by the members of the MG. In fact, the 140-character limit imposed by Twitter was seen as a negative aspect of microblogging by the MG participants, as sharing texts on Twitter took more effort than on the blogging platform. As blogs do not impose character limits, student writers in the BG could share texts of any length with their classmates relatively easily, simply by placing it into a blog post. For the MG, however, file-sharing sites were required to share texts that exceeded Twitter's 140-character limit.

Though technical issues existed for both technologies, and are referenced in the literature on both blogging (Fellner and Apple, 2006; Kelley, 2008) and microblogging (Al-Khalifa, 2008; Costa, Beham, Reinhardt and Sillaots, 2008), the need to utilize supplementary sites led to potentially more technical issues for the MG to contend with. Such issues were addressed in tweets. One student writer in the MG had attempted to use the file-sharing site Google Docs (<http://docs.google.com>) to share his text with his peers and the researcher-instructor, which requires a document to be made public before it can be viewed by someone other than the creator. The student writer had great difficulty accomplishing this, and eventually, it came to a point where he could not even access the file, so he decided to abandon Google Docs altogether and use another file-sharing site, Dropbox

(<http://www.dropbox.com>). In the following tweet, translated from Thai, he outlined his dilemma:

[Link to file on Dropbox] The old one can't be accessed. The Google Docs one. So I sent this one instead. [S45]

This and other difficulties with file-sharing sites (particularly with texts not being visible to others) were also observed in other tweets, and the use of such sites was described by one of the interviewed MG participants as “complicated”. Such an impression may have kept the participants from taking advantage of succinct nature of the technology, which as noted, has been pinpointed as beneficial in the literature (Gao, Luo and Zhang, 2012; Wheeler, 2009).

5.3. Implications

The findings of this research would seem to indicate several pedagogical implications involving how blogs and microblogs can be used to promote learner autonomy, raise audience awareness, and aid the exchange of feedback. These points will be discussed in greater detail in the following sections.

5.3.1 Promotion of learner autonomy

Learner autonomy refers to a state where a learner is able to assume a degree of responsibility over the content he/she needs to learn, in what manner it should be learned, when it should be learned, and for how long it should be learned (Benson and Voller, 1997). Learner autonomy is of value because “[o]nce learners take responsibility for their learning, they will be more able to capitalize on learning

environments both in and out of the classroom, hopefully making them life-long and efficient learners” (Pinkman, 2005: 12). A key feature of an autonomous learner is that he/she is an active self-initiator, and independent decision-maker and problem-solver, but the role of interacting, collaborating, and negotiating with others cannot be overlooked (Bhattacharya and Chauhan, 2010; Thanasoulas, 2000). To this end, the findings of this study suggest that both blogs and microblogs can give student writers a space where they can engage in independent decision-making and problem-solving as they work on completing their writing assignments, and also provide them with a channel through which they can connect with others.

The manner in which the BG and MG utilized the blogs and microblogs seemed to indicate a level of independent action. The writing assignments were constructed in a manner that was hoped to promote autonomous action, as beyond giving a deadline for the submission of the final written product, and a requirement regarding the number of times they had to post on their respective platforms about their own and their peers’ writing, the use of blogs and microblogs was essentially left up to the student writer to regulate by themselves. That is, the writing assignments presented open-ended problems which the student writers were asked to solve by going “beyond formulaic solutions” in order to enhance “their capacity to develop effective problem-solving behaviors across multiple contexts” (Anderson, 2010: 27). The timing and content of the posts were the responsibility of the student

writers. Over the course of the ten weeks of technology use, there were indications that they acknowledged this responsibility. There were participants who posted more than the minimum number of times, sometimes putting up several versions of a text, which would seem to indicate they had come to the independent conclusion that an altered text was needed. In addition, although there were revisions to texts that showed some correspondence to received comments, there were also changes that bore no clear relation to any traceable external stimuli. It could be cautiously speculated that the student writers may have made their own decisions regarding some of these changes, which would suggest an active approach to the writing assignments, as well as the ability to draw on the necessary strategies to solve the problems identified, both hallmarks of an autonomous learner (Thanasoulas, 2000).

From the results of this study, it also appeared that blogs and microblogs were capable of being integrated into the writing process of student writers, allowing them to share their work at each stage and receive feedback on it, even before a fully-realized text is available. The student writers of this study posted about their writing assignments starting from their pre-writing, a stage where many of them often had nothing more to present than a few ideas or a short outline of proposed text components. Even such sparse output can be commented on by readers, however, which may be a boon to student writers, not only in both in terms of affective support, but also text construction. These technologies can help provide support to

a student writer from the very onset of the writing process; simply put, student writers need not be alone from the very moment they start on a writing assignment. This availability of aid constitutes a form of scaffolding, or the provision of support to a developing learner by a teacher or more capable others, which is key to the promotion of learner autonomy (Luzón, 2006; A. Pritchard, 2007). The decision to incorporate received feedback denotes a form of autonomous action, as it is the individual's decision to do so or not (De Guerrero and Villamil, 2000).

5.3.2 Raising audience awareness

If writing is viewed as a social activity, then learning how to compose texts cannot be done in isolation (R. J. Pritchard and Honeycutt, 2007). According to Lapp, Shea and Wolsey (2010), a skilled writer has an understanding that writing is a form of communication with readers of particular characteristics. Their writing is subsequently shaped in accordance with this understanding, affecting everything from the selection of topics to the amount of information included. Yet, most student writers are essentially composing texts for one reader—the teacher (Blackstone, Spiri and Naganuma, 2007). As such, student writers may not feel motivated to attempt to convey their messages in manner that takes into account the beliefs or needs of the envisioned audience (Alamargot, Caporossi, Chesnet and Ros, 2011).

With the introduction of blogs and microblogs, however, student writers' texts are open to a potentially vast audience beyond the classroom. With this, student writers must develop an understanding that their work might be seen by

readers who will likely not attempt to decipher a poorly-constructed text (Armstrong and Retterer, 2008). Such an understanding can be of benefit to student writers, as it may stimulate them to pay greater attention to both content and form, refine their texts more frequently than they might have been inclined to, and give them a greater sense of purpose for their writing (Armstrong and Retterer, 2008; Bloch, 2007; W. Zhang, 2010).

The findings of the present study seem to suggest that the posited potential of blogs and microblogs to raise audience awareness was supported. There were a number of references by both the BG and MG to sharing their texts online so that they could be read and commented on by peers. This would indicate that they understood that there would be people reading their texts other than the researcher-instructor. In fact, there seemed to be a subtle frustration when there were no obvious indications that people *were* reading their texts, i.e. the presence of comments or tweets directed at them, a phenomenon that has been noted in the literature on CMC technologies (Fellner and Apple, 2006). This frustration actually moved several members of both groups to approach the researcher-instructor to ask for more comments (both from the researcher-instructor herself and from peers), and would seem to point to their awareness of—and desire for—an audience for their work.

5.3.3 Aiding the exchange of feedback

Feedback is a key component of the writing process (Hyland, 2003). Face-to-face feedback exchange, however, may be an activity that consumes valuable class time, and could incite feelings of anxiety in student writers who worry about having to confront their peers with potentially critical opinions (M. Ho and Savignon, 2007; Liu and Sadler, 2003; Miao, Badger and Zhen, 2006). Yet, the literature has delineated a number of benefits for both peer and teacher feedback, including the cultivation of self-esteem, the development of critical thinking skills, and the enhancement of writing skills (M. Ho and Savignon, 2007; Wu, 2006).

Blogs have been proposed as an alternative channel for feedback exchange, one that is less threatening, and allows the process of giving and receiving feedback to become independent of the classroom, and the time and physical constraints associated with it (Dippold, 2009). The findings from a number of studies appear to back up these claims, such as Wu (2006), Gedera (2012), and Kitchakarn (2013). The results of the present study seem to align with those reported in the literature. Blogs were perceived by the BG to be able to support the exchange of feedback, and both revision- and non-revision-oriented comments were observed on the platform. These findings would seem to give greater support to the adoption of the blogging platform as a channel that aids the exchange of feedback.

Additionally, though there has not yet been much postulation regarding the use of microblogging as a platform to support feedback exchange, the findings from

the present study would seem to support the use of this technology for this purpose as well. As noted, microblogging has already been examined by researchers as a means to boost the interactivity of presentations and lectures, and has been found to have the capacity to promote multidirectional discussions in what were essentially unidirectional contexts (Elavsky, Mislán and Elavsky, 2011; Vorvoreanu, Bowen and Laux, 2012). The use of microblogs by the MG demonstrated that this technology can accomplish a similar feat when it is integrated into the writing process of Thai undergraduate learners completing English writing assignments. The MG used the platform to exchange comments regarding their texts. In fact, there was a higher number of revision-oriented feedback comments—i.e., those that could lead to alterations in written text (Liu and Sadler, 2003)—seen in the tweets than in the comments section of the blogs.

What further enhances the potential for both blogs and microblogs to serve as feedback exchange channels is how they appeared to want to communicate with others on their respective platforms. The MG's impression that Twitter lacked a substantial user base in Thailand, for instance, could be tentatively posited to mean that the participants desired contact with individuals other than their teacher and peers, a desire that would be hindered if there is a perceived dearth of people to communicate with. Indeed, this was a point brought up by intermediate U.S.-based learners of French who were required to use Twitter to communicate among

themselves and with a group of intermediate-high French learners of English. At the end of a semester of use, the U.S. learners expressed a wish to have greater contact with their counterparts in France, who had not been required to use Twitter and had subsequently tweeted much less frequently than they had. The researchers noted how this lack of communication was frustrating for the U.S. learners (Lomicka and Lord, 2012). The MG participants may have anticipated such a problem. If this is the case, it may be said to be a positive sign that the participants were open, and apparently eager, to have their work evaluated by outside readers. Such results point to a promising potential for the exploitation of the microblogging platform as a channel for the exchange of feedback.

5.4. Conclusion

In this study, mandatory use of blogs and microblogs was implemented with Thai undergraduate learners to support their writing process during the completion of English writing assignments, as well as to help alleviate their writing anxiety. Data collected after ten weeks of technology use seemed to indicate that the introduction of both blogs and microblogs was able to reduce the participants' use of Thai during the writing process, to help raise their awareness of writing as a recursive process, and to allow for the inclusion of external ideas, both from peer and teacher feedback, and the viewing of others' texts. Therefore, both blogs and microblogs can likely be introduced for such purposes. Where the groups using blogs and microblogs differed was in how they requested feedback, with the microblogging

group using more explicit requests, and the patterns of their feedback, as there were more revision-oriented comments noted in the tweets versus the comments left on blog posts. However, both technologies were seen as useful for the exchange of feedback during the writing process, which was done in an encouraging, supportive manner in both groups. The genial atmosphere on the blogs and microblogs may have had an influence on the participants' writing anxiety, although the majority of student writers maintained their average writing anxiety levels throughout the study. The effects of blogs and microblogs did not show a statistically significant difference, though both seemed to have a slight impact on student writers at either extreme of writing anxiety, with the percentage of those with high, or detrimental, writing anxiety falling concurrent with the percentage of those with low, or non-detrimental, writing anxiety rising.

5.5. Limitations of the research

There are certain limitations of this study that need to be taken into account when interpreting its results. First, this study investigated only two groups of a relatively small, homogenous sample of students at a Thai university, and thus, caution must be exercised when generalizing its findings to different contexts. Additionally, the technologies under investigation were only in use for ten weeks. Though it is impossible to say with certainty that a longer timeframe may have yielded substantially different results, Dippold (2009: 26) does argue that in implementing CMC technologies such as blogs and microblogs, they must be “used

continuously and not just as the occasional add-on, with more intensive, on-going training”, if familiarity and the skills required to adequately exploit the technologies are to develop. Also, blogging and microblogging use were graded and mandatory, and so the results of this study may not be applicable to a context where the use of these technologies is voluntary. It should be noted, however, that some researchers, such as Junco, Elavsky, and Heiberger (2013), argue that keeping the use of technologies such as microblogging mandatory is conducive to promoting positive learning outcomes.

Another limitation of this study was that it used a number of data collection instruments that were self-report measures. These measures restricted the generalizability of this research study’s findings. However, as the SLWAI has been found to be a valid and reliable instrument for operationalizing student writers’ writing anxiety, and the interview data and microblog posts were used for data triangulation, these measures were considered satisfactory data collection measures for this research. Moreover, to ensure participants’ ease with revealing information about their writing anxiety, the SLWAI was administered in Thai (the language they were most comfortable with). Additionally, the respondents’ anonymity was maintained throughout the three administrations of the SLWAI, as a means to support greater honesty in the participants’ responses. This anonymity, however, had an effect on the statistical measures that could be employed for data analysis, in

that individual participants' writing anxiety levels could not be traced among the three administrations. Therefore, no conclusions could be drawn about particular individuals over the duration of the study.

5.6. Recommendations for further research

The insights gained from the present study have merely scratched the surface regarding the use of blogs and microblogs in the teaching and learning of English writing in the Thai context. There are numerous avenues for future research, which will be discussed in the ensuing sections.

As noted previously, this study had a number of limitations, and these should be considered in future research. Aside from research that could be undertaken to address the shortcomings of the present study, certain findings would also seem to indicate further avenues of investigation. For instance, although blogs and microblogs appeared to have a similar impact on the student writers' writing process, an interesting phenomenon in regards to the timing of revisions was noted. As mentioned in Chapter 4, in the microblogging group, there were four student writers who made alterations to their texts that showed apparent connections to feedback they had received. However, the alterations were not made immediately following receipt of the feedback. This was a phenomenon specific to microblogging, and would seem an interesting issue to explore more thoroughly.

The participants' use of transliterated Thai, and Thai, their native language, on the two platforms would also seem worthy of further investigation. The use of languages other than English was not restricted within this study, but as noted, the student writers did tend to communicate in English, even though by their own testimony, they would likely have used more Thai in the completion of their writing assignments. The use of transliterated Thai and Thai seemed to serve social functions, such as showing respect, but more insight into this issue would likely aid in the use of blogs and microblogs not only to teach writing, but for the teaching and learning of other language-related skills.

Future investigations could also stem from observations made on the participants' posts on the blogging and microblogging platforms with regards to the use of emoticons. Emoticons, or emotion icons, are short sequences of symbols meant to convey emotions in text-only environments (Derks, Bos and von Grumbkow, 2007). In Wu's (2006) study, participants utilized emoticons despite being explicitly asked not to do so; no such prohibition had been enacted in the present study. A cursory examination of emoticons in the student writers' posts on both platforms seemed to indicate that they fulfilled a wide range of functions, including supplanting conventional punctuation. It was beyond the purview of this study to draw any categorical conclusions regarding emoticon use, but it would seem to be a fruitful and useful field of investigation.

Future research could also further explore the use of blogs and microblogs to alleviate writing anxiety. It was noted that a major percentage of this research study's participants sustained a writing anxiety level believed to not have damaging effects, and may even have been helpful. Contrarily, those participants who started the study with either high or low levels of writing anxiety appeared to be most strongly affected by the use of blogging and microblogging. Although it is not possible to clearly conclude from these results that the introduced technologies had a more advantageous effect on those at either end of the writing anxiety spectrum (as there was only a small percentage of participants in either category), this observed tendency would seem to point to a question worthy of further investigation.

In conclusion, there are still numerous avenues of research to pursue in regards to the use of blogs and microblogs, particularly in the Thai context. As CMC technologies become an even more ubiquitous proponent of students' lives, their use in the classroom will likely become more necessary. Such use should be supported by research, as to maximize the benefits of the particular technologies in use, while minimizing their disadvantages.

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APPENDICES

APPENDIX A

Blog/Twitter use in learning Experiential English

Directions: Read each question thoroughly and answer each to the best of your ability by placing an X in the space under your choice or writing on the provided lines. The results of this survey will be used only for research purposes. Please do your best to answer truthfully.

Gender Male Female
 Age 18 19 20 Older than 20 (Please specify: __)

What do you do when you have an English writing assignment?

1. Had you ever used blogs/Twitter before taking Experiential English?

- Yes, go to question 2.
 No, go to question 4.

2. If you have used blogs/Twitter before, what did you use them for? (Please choose all that apply).

- To contact friends and acquaintances
 To follow news from friends and acquaintances
 To contact other people, such as actors or singers
 To follow news from other people, such as actors and singers
 To follow news in general, such as political news or entertainment news
 To follow news on special events, such as flooding
 To record daily events that happen to yourself
 To share interesting information, such as interesting websites
 To search for information
 Other uses (Please specify) _____

3. In a week, how many times do you post to your blog/Twitter?

- I rarely post to it.
 1-2 times per week
 3-4 times per week
 5-6 times per week
 More than 7 times per week (Please specify) _____

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4. To what extent are blogs/Twitter useful for the following purposes? Mark X for your choice.

	5 Very useful	4 Somewhat useful	3 No opinion / Uncertain	2 Not very useful	1 Not at all useful
4.1 Using blogs/Twitter to post while working on an English writing assignment for the teacher to comment on.					
4.2 Using blogs/Twitter to post while working on an English writing assignment for classmates to comment on.					
4.3 Using blogs/Twitter to post while working on an English writing assignment for other Internet users to comment on.					
4.4 Using blogs/Twitter to express my opinion on my classmates' English writing assignments.					
4.5 Using blogs/Twitter to contact the teacher when I have questions while doing my English writing assignment.					
4.6 Using blogs/Twitter to contact my classmates when I have questions while doing my English writing assignment.					
4.7 Using blogs/Twitter to contact other Internet users when I have questions while doing my English writing assignment.					
4.8 Using blogs/Twitter to answer my classmates' questions while they work on their English writing assignments.					

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	5 Very useful	4 Somewhat useful	3 No opinion / Uncertain	2 Not very useful	1 Not at all useful
4.9 Using blogs/Twitter for learning English in other ways, such as reviewing before a test.					
4.10 Using blogs/Twitter to learn other subjects aside from English.					
4.11 Using blogs/Twitter for contacting friends and acquaintances.					
4.12 Using blogs/Twitter to follow news from friends and acquaintances.					
4.13 Using blogs/Twitter to contact other people, such as actors and singers.					
4.14 Using blogs/Twitter to follow news from other people, such as actors and singers.					
4.15 Using blogs/Twitter to follow news in general, such as political news or entertainment news.					
4.16 Using blogs/Twitter to follow news on special events, such as flooding.					
4.17 Using blogs/Twitter to record daily events that happen to yourself.					
4.18 Using blogs/Twitter to share personal information					
4.19 Using blogs/Twitter to share interesting information, such as interesting websites					
4.20 Using blogs/Twitter to search for general information.					

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5. What problems have you encountered using blogs/Twitter? (You may choose more than one option.)

- Problems with the website, such as the website not functioning, being unable to log in, etc.
- Problems with using the blog, such as difficulty using the blog functions, difficulty contacting people, difficulty finding older posts, etc.
- Slow speed
- Other problems (Please specify)

6. Would you recommend using blogs/Twitter with the students of next year's Experiential English class?

- Yes, I would recommend them. (Please specify reasons why).

- No, I would not recommend them. (Please specify reasons why).



APPENDIX B

แบบสำรวจการใช้บล็อก/Twitter ในการเรียนรู้ Experiential English

คำชี้แจง: จงอ่านคำถามทุกข้ออย่างละเอียดและตอบเท่าที่สามารถ โดยให้กาก X ในช่องที่เลือกหรือเขียนข้อมูลบนเส้นแสดงผลแบบสำรวจที่ จะถูกใช้ในกาวิจัยเท่านั้น ดังนั้นขอให้ผู้ตอบตอบทุกข้อตามความเป็นจริง

เพศ ชาย หญิง
 อายุ ต่ำกว่า 18 18-19 ปี มากกว่า 19 ปี

นิสัยทำอย่างไร เมื่อมีงานเขียนภาษาอังกฤษ

1. นิสิตเคยใช้บล็อก/Twitter มาก่อนจะเรียน Experiential English ไหม

- เคย ไปต่อข้อ 2
 ไม่เคย เข้าไปข้อ 4

2. ถ้าเคย นิสิตใช้บล็อก/Twitter ทำอะไรบ้าง (เลือกได้มากกว่าหนึ่งข้อ)

- ใช้ติดต่อเพื่อนและคนรู้จัก
 ใช้ติดตามข่าวจากเพื่อนและคนรู้จัก
 ใช้ติดต่อคนอื่นๆ เช่น นักแสดง นักร้อง
 ใช้ติดตามข่าวสารทั่วไป เช่น ข่าวการเมือง ข่าวบันเทิง
 ใช้ติดตามข่าวเหตุการณ์สำคัญ เช่น น้ำท่วม
 ใช้บันทึกเหตุการณ์ที่เกิดขึ้นกับตัวเอง
 ใช้แบ่งปันข้อมูลน่าสนใจ เช่น เว็บไซต์ที่น่าสนใจ
 ใช้หาข้อมูลต่างๆ
 ใช้ทำอย่างอื่น (โปรดระบุ) _____

3. ในหนึ่งสัปดาห์ นิสิตโพสต์ขึ้นบล็อก/Twitter กี่ครั้ง

- นานๆ จะ โพสต์สักครั้ง
 1-2 ครั้งต่อหนึ่งสัปดาห์
 3-4 ครั้งต่อหนึ่งสัปดาห์
 5-6 ครั้งต่อหนึ่งสัปดาห์
 มากกว่า 7 ครั้งต่อหนึ่งสัปดาห์ (โปรดระบุ) _____

APPENDIX B

4. นิสิตคิดว่าบล็อก/Twitter มีประโยชน์ในข้อต่อไปนี้มากน้อยแค่ไหน จงกา X ในช่องที่เลือก

	5 มีประโยชน์ มาก	4 มีประโยชน์ บ้าง	3 ไม่มีความคิดเห็น / ไม่แน่ใจ	2 ไม่ค่อยมีประโยชน์	1 ไม่มีประโยชน์ เลย
4.1 ใช้บล็อก/Twitter เพื่อ โพสต์ ระหว่างการทำงานเขียน ภาษาอังกฤษให้เจอร์รี่ออก ความคิดเห็น					
4.2 ใช้บล็อก/Twitter เพื่อ โพสต์ ระหว่างการทำงานเขียน ภาษาอังกฤษให้เพื่อนร่วมห้อง ออกความคิดเห็น					
4.3 ใช้บล็อก/Twitter เพื่อ โพสต์ ระหว่างการทำงานเขียน ภาษาอังกฤษให้คนอื่น ๆ ที่ใช้ อินเทอร์เน็ตออกความคิดเห็น					
4.4 ใช้บล็อก/Twitter เพื่อ แสดงความคิดเห็นเกี่ยวกับการ ทำงานเขียนภาษาอังกฤษของ เพื่อนร่วมห้อง					
4.5 ใช้บล็อก/Twitter เพื่อ ติดต่อเจอร์รี่เมื่อมีข้อสงสัย ระหว่างการทำงานเขียน ภาษาอังกฤษ					
4.6 ใช้บล็อก/Twitter เพื่อ ติดต่อเพื่อนร่วมห้องเมื่อมีข้อ สงสัยระหว่างการทำงานเขียน ภาษาอังกฤษ					
4.7 ใช้บล็อก/Twitter เพื่อ ติดต่อคนอื่น ๆ ที่ใช้อินเทอร์เน็ต เมื่อมีข้อสงสัยระหว่างการ ทำงานเขียนภาษาอังกฤษ					
4.8 ใช้บล็อก/Twitter เพื่อ ตอบข้อสงสัยของเพื่อนร่วม ห้องเกี่ยวกับการทำงานเขียน ภาษาอังกฤษ					
4.9 ใช้บล็อก/Twitter ในการ เรียนภาษาอังกฤษแบบอื่นๆ เช่น ทบทวนก่อนสอบ					

APPENDIX B

	5 มีประโยชน์ มาก	4 มีประโยชน์ บ้าง	3 ไม่มีความคิดเห็น / ไม่แน่ใจ	2 ไม่ค่อยมีประโยชน์	1 ไม่มีประโยชน์ เลย
4.10 ใช้บล็อก/Twitter ใน การเรียนวิชาอื่นๆ นอกจาก ภาษาอังกฤษ					
4.11 ใช้บล็อก/Twitter ติดต่อเพื่อนและคนรู้จัก					
4.12 ใช้บล็อก/Twitter ติดตามข่าวจากเพื่อนและคน รู้จัก					
4.13 ใช้บล็อก/Twitter ติดต่อคนอื่นๆ เช่นนักแสดง นักร้อง					
4.14 ใช้บล็อก/Twitter ติดตามข่าวคนอื่นๆ เช่น นักแสดง นักร้อง					
4.15 ใช้บล็อก/Twitter ติดตามข่าวสารทั่วไป เช่น ข่าว การเมือง ข่าวบันเทิง					
4.16 ใช้บล็อก/Twitter ติดตามข่าวเหตุการณ์สำคัญ เช่น น้ำท่วม					
4.17 ใช้บล็อก/Twitter บันทึกเหตุการณ์ที่เกิดขึ้นกับ ตัวเอง					
4.18 ใช้บล็อก/Twitter แบ่งปันข้อมูล					
4.19 ใช้บล็อก/Twitter แบ่งปันข้อมูลน่าสนใจ เช่น เว็บไซต์น่าสนใจ					
4.20 ใช้บล็อก/Twitter หา ข้อมูลต่างๆ					

APPENDIX B

5. นิสิตพบปัญหาอะไรบ้างในการใช้บล็อก/Twitter (เลือกได้มากกว่าหนึ่งข้อ)

- ปัญหาเกี่ยวกับเว็บไซต์ เช่น เว็บไซต์ล่ม ล็อกอินไม่ได้ ฯลฯ
- ปัญหาการใช้งาน เช่น ใช้งานยาก ติดต่อกันยาก หาโพสต์เก่ายาก
- ปัญหาความช้า
- ปัญหาอื่นๆ (โปรดระบุ)

6. นิสิตจะแนะนำการใช้บล็อก/Twitter ให้กับผู้เรียน Experiential English ปีต่อไปไหม

- จะแนะนำการใช้บล็อก/Twitter (กรุณาให้เหตุผลว่าทำไม)

- จะ**ไม่**แนะนำการใช้บล็อก/Twitter (กรุณาให้เหตุผลว่าทำไม)



APPENDIX C

Blog/Twitter Use Interview Protocol

Writing anxiety and writing process

1. In general, how do you feel about writing in English?
2. When you have an English writing assignment, what steps do you take when you're working on it?

Blog/Twitter use

3. In general, how do you feel about using blogs/Twitter in Experiential English?
4. What do you think are the advantages of blogs/Twitter?
5. What do you think are the disadvantages of blogs/Twitter?
6. What are your suggestions for improving the use of blogs/Twitter in Experiential English?
7. Would you recommend the use of blogs/Twitter in Experiential English for next year's students?

Additional information

8. Would you like to add anything else about the use of blogs/Twitter?

APPENDIX D

Blog/Twitter Use Interview Protocol

Writing anxiety and writing process

1. โดยทั่วไป นิสิตรู้สึกอย่างไรกับการเขียนภาษาอังกฤษ
2. เมื่อมีงานเขียนภาษาอังกฤษนิสิตมีขั้นตอนการทำงานอะไรบ้าง

Blog/Twitter use

3. โดยทั่วไป นิสิตรู้สึกอย่างไรกับการใช้ บล็อก/Twitter ในวิชา Experiential English
4. นิสิตคิดว่า บล็อก/Twitter มีข้อดีอะไรบ้าง
5. นิสิตคิดว่า บล็อก/Twitter มีข้อเสียอะไรบ้าง
6. นิสิตมีคำแนะนำเพื่อพัฒนาการใช้ บล็อก/Twitter ในวิชา Experiential English อย่างไร
7. นิสิตจะแนะนำการใช้ บล็อก/Twitter ให้กับผู้เรียน Experiential English ปีต่อไปไหม

Additional information

8. มีอะไรเพิ่มเติมไหมเกี่ยวกับการใช้ บล็อก/Twitter ใหม

APPENDIX E

Second Language Writing Anxiety Inventory (Cheng, 2004)

Read the statements below very carefully. For each statement, among the choices 1, 2, 3, 4, and 5 circle the most suitable one for you. As the findings of this test are going to be used for research, we kindly request you be honest while answering the questions.

1. I strongly disagree
2. I disagree
3. I have no strong feelings either way
4. I agree
5. I strongly agree

1. While writing in English, I am not nervous at all.

1 2 3 4 5

2. I feel my heart pounding when I write English compositions under time constraint.

1 2 3 4 5

3. While writing English compositions, I feel worried and uneasy if I know they will be evaluated.

1 2 3 4 5

4. I often choose to write down my thoughts in English.

1 2 3 4 5

5. I usually do my best to avoid writing English compositions.

1 2 3 4 5

6. My mind often goes blank when I start to work on an English composition.

1 2 3 4 5

7. I don't worry that my English compositions are a lot worse than others.

1 2 3 4 5

8. I tremble or perspire when I write English compositions under time pressure.

1 2 3 4 5

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9. If my English composition is to be evaluated, I would worry about getting a very poor grade.

1 2 3 4 5

10. I do my best to avoid situations in which I have to write in English.

1 2 3 4 5

11. My thoughts become jumbled when I write English compositions under time constraint.

1 2 3 4 5

12. Unless I have no choice, I would not use English to write compositions.

1 2 3 4 5

13. I often feel panic when I write English compositions under time constraint.

1 2 3 4 5

14. I am afraid that the other students would deride my English composition if they read it.

1 2 3 4 5

15. I freeze up when unexpectedly asked to write English compositions.

1 2 3 4 5

16. I would do my best to excuse myself if asked to write English compositions.

1 2 3 4 5

17. I don't worry at all about what other people would think of my English compositions.

1 2 3 4 5

18. I usually seek every possible chance to write English compositions outside of class.

1 2 3 4 5

19. I usually feel my whole body rigid and tense when write English compositions.

1 2 3 4 5

20. I am afraid of my English composition being chosen as a sample for discussion in class.

1 2 3 4 5

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21. I am not afraid at all that my English compositions would be rated as very poor.

1 2 3 4 5

22. Whenever possible, I would use English to write compositions.

1 2 3 4 5



APPENDIX F

แบบสำรวจความกังวลการเขียนภาษาที่สอง

จงอ่านข้อความด้านล่างอย่างละเอียด สำหรับทุกข้อความ ให้เลือก 1, 2, 3, 4, หรือ 5 ตามที่เหมาะสมกับตัวผู้ตอบ ผลจากแบบสำรวจนี้ จะถูกใช้ในการวิจัย ดังนั้นขอให้ผู้ตอบตอบทุกข้อตามความเป็นจริง

- 1 ไม่เห็นด้วยอย่างมาก
- 2 ไม่เห็นด้วย
3. ไม่มีความรู้สึกด้านบวกหรือลบ
4. เห็นด้วย
5. เห็นด้วยอย่างมาก

1. เวลาเขียนเป็นภาษาอังกฤษ ฉันไม่มีความกังวลใดๆ
1 2 3 4 5
2. ฉันรู้สึกหัวใจเต้นแรงเมื่อฉันแต่งเรียงความภาษาอังกฤษในเวลาจำกัด
1 2 3 4 5
3. ขณะแต่งเรียงความภาษาอังกฤษฉันรู้สึกกังวลและไม่สบายใจถ้ารู้ว่างานจะถูกประเมินผล
1 2 3 4 5
4. ฉันมักเลือกที่จะเขียนความคิดของฉันลงเป็นภาษาอังกฤษ
1 2 3 4 5
5. ฉันพยายามอย่างมากที่จะหลีกเลี่ยงการแต่งเรียงความภาษาอังกฤษ
1 2 3 4 5
6. สมองฉันมักจะว่างเปล่าเมื่อฉันเริ่มแต่งเรียงความภาษาอังกฤษ
1 2 3 4 5
7. ฉันไม่กังวลว่าเรียงความภาษาอังกฤษของฉันแย่กว่าของคนอื่นๆ
1 2 3 4 5

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8. ฉันตัวสั้นหรือเหงื่อออกเมื่อนั่งแต่งเรียงความภาษาอังกฤษในเวลาจำกัด
- 1 2 3 4 5
9. ถ้าเรียงความภาษาอังกฤษของฉันจะถูกประเมินผล ฉันกังวลเกี่ยวกับการได้คะแนนไม่ดี
- 1 2 3 4 5
10. ฉันพยายามอย่างดีที่สุดที่จะหลีกเลี่ยงสถานการณ์ที่ฉันต้องเขียนเป็นภาษาอังกฤษ
- 1 2 3 4 5
11. ความคิดของฉันวุ่นวายเมื่อนั่งแต่งเรียงความภาษาอังกฤษในเวลาจำกัด
- 1 2 3 4 5
12. ยกเว้นถ้าฉันไม่มีทางเลือก ฉันจะไม่ใช้ภาษาอังกฤษในการแต่งเรียงความ
- 1 2 3 4 5
13. ฉันมักรู้สึกตื่นตระหนกเมื่อนั่งแต่งเรียงความภาษาอังกฤษในเวลาจำกัด
- 1 2 3 4 5
14. ฉันรู้สึกกลัวว่านักเรียนคนอื่นๆ จะหัวเราะเยาะเรียงความภาษาอังกฤษของฉันถ้าได้อ่านมัน
- 1 2 3 4 5
15. ฉันรู้สึกตัวแข็งเมื่อถูกขอให้แต่งเรียงความภาษาอังกฤษ
- 1 2 3 4 5
16. ฉันจะพยายามอย่างดีที่สุดที่หาข้อแก้ตัวถ้าถูกขอให้แต่งเรียงความภาษาอังกฤษ
- 1 2 3 4 5
17. ฉันไม่รู้สีกังวลเลยว่าคนอื่นจะคิดอย่างไรเกี่ยวกับเรียงความภาษาอังกฤษของฉัน
- 1 2 3 4 5
18. โดยปกติฉันเสาะหาทุกโอกาสที่จะแต่งเรียงความภาษาอังกฤษนอกห้องเรียน
- 1 2 3 4 5
19. โดยปกติฉันรู้สึกว่าร่างกายฉันแข็งทื่อและตึงเครียดเมื่อนั่งเขียนเรียงความภาษาอังกฤษ
- 1 2 3 4 5

APPENDIX F

20. ฉันคิดว่าเรียงความภาษาอังกฤษของฉันจะถูกเลือกเป็นตัวอย่างสำหรับอภิปรายในห้องเรียน

1 2 3 4 5

21. ฉันไม่คิดว่าเรียงความภาษาอังกฤษของฉันจะถูกประเมินผลว่าแย่มาก

1 2 3 4 5

22. เมื่อไรที่เป็นไปได้ฉันจะใช้ภาษาอังกฤษในการแต่งเรียงความ

1 2 3 4 5



APPENDIX G

Hour	Activity	
1	<p>Lesson duration: 1 hour of class time; 1 week online</p> <p>Skill focus: Narrative writing</p> <p>Materials:</p> <p>1) Textbook: <i>English Unlimited</i> (B2, Upper Intermediate), (Tilbury, Hendra, Rea, and Clementson, 2011)</p> <p>2) Handout (1): <i>What it feels like to...be an extra!</i></p> <p>3) Handout (2): <i>Writing I: A Dramatic Story</i></p>	
Duration (minutes)	Teacher	Students
5	1. Teacher (T) asks a few students to share a memorable experience from their lives.	1. Students (Ss) share memorable life experiences.
10	2. T directs students' attention to page 20 of the textbook and asks them to read about the memorable experience army lieutenant Charlie Williams had.	2. Ss read the text.
	3. T asks a few students to summarize the text orally and checks comprehension by asking questions such as, "Why did Charlie Williams join the jump course?"	3. Ss summarize the text and ask/answer questions about it.
15	4. T asks students to reread text and to complete Exercises 2, 4, 5, and 6 in the textbook.	4. Ss complete exercises.
	5. T elicits answers from students and asks additional questions, such as, "What are some other expressions we can use to introduce a story?"	5. Ss ask/answer questions.
15	6. T distributes the handout (1) and asks students to read it. While they read, they should: <ul style="list-style-type: none"> - note the sequence of events. - mark unknown vocabulary items. (If Internet access is available, they can look up the words.) - write down any questions they have. 	6. Ss read and mark the text.
	7. T asks a few students to summarize the text orally and checks comprehension by asking questions such as, "How did the person feel about his/her experience?"	7. Ss summarize the text and ask/answer questions about it.
	8. T asks students to compare the two texts from the textbook and the handout (1) and note any similarities.	8. Ss reread the two texts and make notes as necessary.
5	9. T elicits students' understanding of narrative writing, drawing on aspects of the two texts.	9. Ss share their ideas about narrative writing.
10	10. T introduces the writing assignment by distributing the handout (2).	10. Ss review the handout (2) and ask questions.
1 week (online)	11. T monitors students' writing process on their blogs/microblogs.	11. Ss complete writing assignment using blogs/microblogs.

APPENDIX G

My Dramatic Story

Directions: Read about one person's memorable experience. Mark any vocabulary words you are unsure of and write down any questions you have in the space provided.

What it feels like to...be an extra!

I was an extra for a few television shows that were shooting near my hometown. It was a great experience. I learned a lot and had a lot of fun. I also made a lot of new friends. If you ever get the chance to be an extra, you should take it!

My most recent experience being an extra was for an independent sci-fi movie. I got an email from the casting company that said I could be on the set for up to twelve hours, because the movie had a lot of special effects. Special effects make the shooting take longer. I didn't mind. I have worked twelve-hour days before.

I got to the set at about nine in the morning. There were already a lot of the other extras there. Some of them were in costume and were wearing make-up. I was taken to the trailer to get my costume, which was just a plain robe. They did my hair and make-up, but it wasn't anything heavy, because I would mostly be in the background. I didn't know anyone on the set, but one small group had some playing cards and asked me if I wanted to play a card game. We played a few games while we waited to be called into the scene. The scene could be shot over and over many times, depending on what the director wanted. For example, sometimes the director wanted the actors to speak louder or softer, or try some new lines. The first few times, it can be exciting, but by the seventh or eighth time, it can get a little tiring. In between shoots, the extras played games or talked. Some of the extras had brought books or their iPads. We were together for many hours and it was great getting to know everyone.

I liked being an extra, but it's not something I would take up as a career. All my experiences of being an extra have been fun and memorable, but it's just not the right job for me. You really have to love doing it, and a lot of people I met loved it a lot. Still, I think it's a great opportunity and I suggest everyone try it if they get the chance!

Questions*Writing I: A Dramatic Story***This work is graded.**

Directions: Write a dramatic story similar to Charlie's story on page 20 of your textbook and the one you read in the handout, based on the given situation.

Your story:

- must be 300 to 400 words,
- have four paragraphs,
- use **all 3 techniques** from Exercise 4 on page 20,
- use AT LEAST 3 expressions from Exercises 5 and 6 on page 20,
- use AT LEAST 2 dramatic adverbs, such as *suddenly*, *incredibly*, *accidentally*, and
- must be based on the situation given to you: **being trapped in a chemistry lab where the oxygen is running out.**

Read the situation. Pretend the situation really happened to you, and write your dramatic story. How did you feel? What did you do?

Situation

You are trapped in a chemistry lab, where a hazardous chemical bottle breaks, and starts to reduce the oxygen level in the air. You will have to escape from the lab before 20 minutes elapses, as otherwise the hazardous chemical will completely destroy you, or find another way to escape the lab.

Scoring

<i>Component</i>	<i>Points (20)</i>
Online participation	5
Paragraph	
Content	0-6
Organization	0-3
Language (including using your own words)	0-6

This work is due: _____ (to be set in class)

APPENDIX H

INDIVIDUAL PROJECT: DRAFTING AND EDITING

Posted on [July 14, 2012](#) by [REDACTED]

Doraemon

Doraemon is a cat-based robot from the future who has a four-dimensional pocket filled with useful gadgets on his abdomen. He was created on September 3, 2112 by Matsushiba robot company. He is sent back in time by a boy named Sewashi to help his great grandfather, Nobi Nobita, who is unlucky, weak and lazy. Commonly, Nobita comes home and cries with a problem, so Doraemon patiently digs into four-dimensional pocket for a gadget that might cure for the problem. Due to the greedy of Nobita and his friends, they always use the gadget in the wrong way, despite Doraemon's warnings, and then receive the retribution. Therefore, Doraemon have to teach Nobita and his friends about morality including integrity, family perseverance, team-work, dedication and diligence. With an exciting of the gadgets in the four-dimensional pocket and his morality, Doraemon become an idol of many children and adults around the world.

2 Comments

Posted in [Uncategorized](#). [Bookmark the permalink](#).

◀ Individual project: Prewriting (edited) Bangkok Attractions: Pre-writing ▶

2 responses »



[REDACTED] July 14, 2012 at 9:23 PM

He is my idol too!

Reply



[REDACTED] July 27, 2012 at 5:36 PM

Check the individual project details for the format (it's definitely not one paragraph).

Reply

Leave a Reply

Enter your comment here...

APPENDIX I

The screenshot shows a Twitter profile for a user named 'S [redacted]' with a profile picture of a white egg on a black background. The user's statistics are: 60 TWEETS, 31 FOLLOWING, and 16 FOLLOWERS. The profile was joined in June 2012. The 'Tweets' tab is selected, showing three tweets from August 2012:

- Tweet 1: Posted on 28 Aug 2012, text: 'Dramatic2_Publishing : tinyurl.com/9d2ta37'. Includes icons for reply, retweet, favorite, and more options.
- Tweet 2: Posted on 28 Aug 2012, text: 'Dramatic2_Editing : tinyurl.com/8geaq2t'. Includes icons for reply, retweet, favorite, and more options.
- Tweet 3: Posted on 26 Aug 2012, text: 'Dramatic2_Drafting : tinyurl.com/9k4hzne'. Includes icons for reply, retweet, favorite, and more options.

VITA

Onuma Lakarnchua earned her undergraduate degree in biomedical science from Mahidol University International College, and her master's degree from the English as an International Language program at Chulalongkorn University. She is an instructor for the Chulalongkorn University Language Institute. Her areas of interests include the integration of technology in English as a foreign language education, affect in language learning, and game-based learning.

