THE CURRENT PRACTICE OF INTEGRATION OF INFORMATION COMMUNICATION TECHNOLOGY TO ENGLISH TEACHING AND THE EMOTIONS INVOLVED IN BLENDED LEARNING

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ABSTRACT
The effective and confident integration of information communication technology (ICT) tools and programs can be frustrating. Hence, providing emotional support for teachers who are willing to adopt ICT in language instruction is an issue worthy of attention. In order to promote ICT-supported language instruction, this study aims to identify the contexts and types of emotions experienced by teachers. Teachers in universities of technology were invited to participate in this study in order to share their experiences and emotions in applying ICT in language courses. We address the following research questions: 1) What are the current practices of ICT by language teachers in higher education? 2) What emotions are involved in the integration of ICT into language courses? Questionnaires and interviews were adopted to collect relevant data. The results showed that teachers have positive attitudes toward integrating ICT integration but a gap exists between the extent to which teachers enjoy using technology and the degree to which they use the technology in their classes. Regarding the emotions expressed by teachers, most were happy with their utilization of ICT. However, negative emotions experienced are anxiety, anger, and sadness. These negative emotions often resulted from unexpected responses, student performance, or the technological equipment.

BACKGROUND
The introduction of innovative technologies to support effective teaching strategies has become a trend in all levels of education and is rapidly spreading to all continents of the world. For example, the use of information communication technology (ICT) in European higher education is considered a prerequisite for adaptation by teachers(García-Valcárcel & Tejedor, 2009). UNESCO Bangkok (2003) also launched a program to promote the use of ICT in education in Asia and the Pacific region. With the financial support of Japanese Funds in Trust (JFIT), the program aims to enhance technology-assisted learning and bridge the digital divide in education in Asia and the Pacific. The program aims to support education communities in meeting the challenges of capacity building and policy changes in achieving the goals of Education For All (EFA) in new, technology-facilitated learning environments in the emerging information society. Technological advances in the past decades have resulted in new opportunities to use technology to improve learning and teaching. In addition, the global fascination with the Internet continues to result in the urgent call to integrate Internet technologies into higher education (King, 2002).

Because emotions are the forgotten key to success in online learning, as De Lera Fernàndez and Almirall (2009) asserted, more research should be conducted to identify both the sources and types of emotions experienced by teachers when they apply ICT in their teaching. How do teachers deal with these emotions? How do these emotions influence their instruction using ICT? To answer these questions, the current practices of ICT by language teachers in higher education should be investigated first, and then the emotions involved in the integrating of ICT should be explored. Moreover, after identifying the emotions involved, the consequences for teachers' of effectively they handle their emotions should also be studied. There is still a relative dearth of studies focusing on the emotions teachers and students often encounter in online learning environments (Kay & Loverock, 2008).

This study invited teachers in the universities of technology in Taiwan to share their experiences and emotional responses in applying ICT in language courses. The following questions are addressed in this study:
1. What are the current practices of ICT for language teachers in higher education?
2. What are the emotions involved for teachers in the integrating of ICT into language courses?

LITERATURE REVIEW
The purpose of the literature review is to provide the rationale for the present study. The review first focuses on current ICT practice and then addresses emotions involved in computer-assisted learning in the digital age. The implementation of ICT has become commonplace in higher education. Researchers have widely agreed that ICT

is a helpful aid in language learning. For example, Ogata, Feng, Hada, and Yano (2000) implemented an Internet-based student-centered foreign language education system and proved that it can be used in the instruction and correction of foreign students' compositions. Meskill and Anthony (2005) examined the strategies of teaching a foreign language in a class that integrated computer-mediated communication (CMC) and found the ability to stop online conversations and review the language used to be extremely effective in student learning. Hubackova and Ruzickova (2011) collected feedback from students after conducting a series of ICT-oriented courses. They found that the students responded positively and expressed satisfaction with the contents of the courses.

Language instructors who have included ICT in their teaching have experienced positive results, and the integration of ICT is increasing in education systems. However, foreign language teaching that uses e-learning usually catches on more slowly than the teaching of sciences or technological subjects does (Hubackova & Ruzickova, 2011). The integration of ICT into language acquisition and instruction can be successful if correct strategies are employed. However, instructors and learners may experience negative emotions in the process of adapting ICT. In Laborda and Royo's (2009) research project, a group of senior teachers took part in training for computer-based language tests. By the end of the training, the majority of trainees had reacted positively and was eager to let the research team work with their students. However, they felt they were not capable of using ICT for testing in their classes. This result indicated that teachers might still lack of confidence to use ICT even after they are trained. ICT cannot achieve the maximum effect if the instructor is not confident or does not employ useful strategies.

Using ICT to support English language learning poses challenges for teachers with regard to the effective exploitation of new and emerging technologies. Language teachers should consider new strategies in teaching with ICT; however, ICT per se cannot help teachers in the classroom (Ghasemi & Hashemi, 2011). Therefore, teachers are required to equip themselves with the skills to make effective use of ICT (Kim & Baylor, 2008). However, many instructors are used to teaching without ICT, and many teachers in the field of language learning are not advanced computer users. Moreover, blending a new system into an existing educating system is not an easy task. Bender (2003) suggested that in order to manage online education successfully, teachers should have experience in online instruction, have been an online student at least once, and have guided students in acquiring skills and applying strategies in effective online learning. Thus, the emotions involved in the process of integrating ICT should not be neglected.

Hargreaves (2000, p. 811) emphasized "the importance of the emotions as a field of inquiry for deepening our understanding of the nature, conditions and consequences of teaching, learning and leading in schools today." Lyons, Kluender, and Tetsutani's (2005) study demonstrated that the awareness of our emotional states and those of others can enhance cognitive performance as well as the ability to assess another person's state of mind in a web-based learning environment. Derks, Fischer, and Bos (2008) defined emotion communication as the recognition, expression, and sharing of emotions or moods between two or more individuals. In humans, emotion fundamentally involves physiological arousal, expressive behaviors, and conscious experience (Myers, 2004). Motivations direct and energize behavior, whereas emotions provide the affective component to motivation, whether positive or negative (Gaulin & McBurney, 2003). Emotion directly affects the effects of learning on both the instructor and the students in a learning environment. It is thus important to examine the emotions experiences by the teacher and students during the implementation of ICT in language studies carried out in a classroom or online environment.

Previous studies (e.g., Wosnitza & Volet, 2005) found that emotions in computer-supported learning could derive from the participants themselves, the context, task or technology offered, as well as other people, such as peers and instructors. Ware (2005) indicated that the following factors cause tensions in telecommunication: 1) different expectations and norms for tele-collaboration; 2) social and institutional factors; 3) individual differences in motivation and use of time. He believed the above factors explain the emotional changes in participants during online communication. (2007) pointed out that although technology is a factor in web-based learning environments, the social aspects of the learning situation drive and trigger emotional responses. Nummenmaa (2007) found that "student interaction in the learning environment was mentioned as a cause of emotions more often than the technical environment itself" (p. 41). Students who rarely take part in discussions and do not actively interact with their peers and those who are defined as "lurkers," generally experience negative emotions and become inefficient in their learning in a web-based learning environment.

Both positive and negative emotions can influence students' learning. Negative emotions, such as anxiety, boredom, and hopelessness correlate negatively with interest and effort, whereas positive emotions, such as enjoyment and hope, correlate positively with the motivational variables (Pekrun, Goetz, Titz, and Perry, 2002). When students express emotions, instructors need to respond accordingly in order to keep the students in as

positive a state of mind as possible. Furthermore, in order to teach effectively, instructors have to control their emotions both in the process of becoming accustomed to the new system and in perceiving the emotional responses of students.

However, a challenge researchers might face in collecting emotion-related data surrounding ICT is the difficulty of observation. Nummenmaa's (2007) research also pointed out that because in a web-based learning environment, participation is by computer and discussions are held online, it is difficult to observe and record the emotions of those who are not visible. Researchers must rely on the willingness of participants to reveal their emotions in public. In other words, methods other than self-reports are difficult to utilize. Wosnitza and Volet (2005) suggested several ways to examine learners' emotions in social online learning:

1. *snapshot type measurement immediately before and/or after the learning process*
2. *measurement during the learning process*
3. *stimulated recall measurement after the learning process*

Kay and Loverock (2007) developed a reliable, valid scale to assess the emotions experienced by learners when they used computers. After a detailed review of the relevant literature, they selected four emotions: anger, anxiety, happiness, and sadness.

Emotions can also greatly influence communication in collaborative learning settings. However, no comprehensive and empirically validated theory of emotion is available to date (Picard et al., 2004). Few studies have focused on the emotions teachers and students might experience in an ICT learning environment while engaged in language learning. Hargreaves (2000) indicated that because teaching is an emotional practice, it is important to engage with the emotional arena in education in ways that are critical, and not sentimental or self-indulgent. He also pinpointed that efforts have been made recently to remedy the neglect of emotion in the fields of teaching and teacher development.

In summary, the literature review was instrumental in forming the parameters of this study, which focusses on emotional factors in teachers and students as they shift from traditional educating methods to ICT-supported language instruction.

METHODS

Thirty EFL teachers from universities in Taiwan were invited to answer a questionnaire and six teachers were interviewed. The first part of the questionnaire focused on teachers' attitudes and information literacy (Appendix A). Sixteen items on a five-point Likert scale and one open-ended question were included in the questionnaire to elicit relevant information about how teachers integrate ICT into promoting students' L2 learning in universities of technology. In the first part, items 1–8 were related to attitudes towards ICT integration into language teaching and items 9–16 concerned current practice of ICT in classes.

The second part of the questionnaire concerned emotions involved in the teaching process. Kay and Loverock (2008) developed the emotion scales employed in this study. The scales are based on an extensive review of the literature focusing on the definition of emotions. Four categories of emotions (anger, anxiety, happiness, and sadness) were selected. The category of anger contains three sub-items of emotion: satisfied, excited, and curious. The sadness category includes two kinds of emotions: disheartened and dispirited. The emotion of anxiety includes four different emotions: anxious, insecure, helpless, and nervous. The final category, anger, includes three items: irritable, frustrated, and angry. The teachers in this study were asked to select the emotions they encountered when adopting ICT and provide the contexts of these emotional responses. Finally, the teachers were asked to select reasons that some teachers do not adopt ICT in their language teaching.

The semi-structured interview was conversational and involved open-ended questions (Appendix B) to encourage the teachers to express their ideas. The interview was conducted in both English (for foreign teachers) and Chinese (for Chinese teachers). The interview data were then transcribed, translated, and extracted to triangulate with the other data.

RESULTS AND DISCUSSIONS

The first part of the questionnaire included six five-point Likert-type items; the results are presented in Table 1. Using Cronbach's alpha coefficient of internal consistency, the reliability of the questionnaire was determined at 0.86. The values reached the satisfactory level of ≥0.7 (Nunnally and Bernstein, 1994).

Responses of 'strongly agreed' and 'agreed' were consistently summed. Regarding the teachers' attitudes toward

the use of computer and technology as teaching tools, most teachers answered positively to the items on the questionnaire: 82.3% of the teachers agreed that their schools offered sufficient information about technology equipment for instructors to apply in teaching; 67.6% agreed that schools provided clear targets for instructors; 47.1% of the teachers agreed that their motivation to use technology in teaching was affected by whether their colleagues would assist them. In addition, over 65% of the teachers surveyed confirmed that utilizing information technology in teaching enriched their lessons, improved their quality of teaching, and increased the students' interactions in learning English. Similarly, 70% of the teachers agreed that technology increased their students' motivation in learning English.

Table 1. Results indicating teachers' attitudes and current practice of ICT

Item (1)Information literacy and attitude of instructor	SA	A	SA	D	SD	M	Standard D
1. My school offers sufficient information technology equipment for instructors to apply in teaching.	38.2	44.1	17.6			4.21	.729
2. My school provides clear targets for instructors to use information technology in teaching.	17.6	50.0	23.5	8.8		3.76	.855
3. My willingness to use information technology in teaching is affected by whether I receive assistance from colleagues.	11.8	35.3	17.6	32.4	2.9	3.21	1.122
4. I think the use of information technology enriches the content of teaching.	50.0	38.2	8.8	2.9		4.35	.774
5. I think the use of information technology to assist English teaching raises the teaching quality.	41.2	38.2	11.8	8.8		4.12	.946
6. I think the use of information technology increases the interaction in class.	38.2	26.5	23.5	11.8		3.91	1.055
7. I think the use of information technology raises the students' willingness to learn English.	23.5	47.1	20.6	8.8		3.85	.892
8. I often take parts in seminars or lectures to improve my ability to use information technology.	17.6	26.5	38.2	17.6		3.44	.991
9. I often use my own teaching website to help students learn English because students can interact at any time.	5.9	14.7	26.5	38.2	14.7	2.59	1.104
10. I often use the school's teaching website to help students learn English because students can interact at any time.	11.8	20.6	26.5	35.3	5.9	2.97	1.141
11. I often use YouTube in class as it provides videos from actual scenarios.	26.5	17.6	29.4	17.6	8.8	3.35	1.300
12. I often use briefings to teaching because the visual information provides helps the students to learn.	38.2	38.2	8.8	14.7		4.00	1.044
13. I often use Facebook to teaching because it offers real time discussion.	5.9	14.7	17.6	35.3	26.5	2.38	1.206
14. I often use internet forums to teaching because it offers interactive discussions.	5.9	5.9	23.5	38.2	26.5	2.26	1.109
15. I often use email to teaching as I can have a complete record of sending and receiving.	2.9	38.2	14.7	29.4	14.7	2.85	1.184
16. I often use teaching software (e.g., ebook, automatic feedback software) in teaching because self-directed learning is available at any time.	5.9	14.7	35.3	32.4	11.8	2.71	1.060

However, in Item 8, only 44% of the teachers expressed that they would take part in seminars or lectures to improve their technological abilities. Fewer teachers noted that they would construct their own websites to help students learn English (less than 21% agreed): 32% of the teachers agreed that they would use the teaching websites constructed by the school to help their students learn English; 44.1% of the teachers agreed that they would use YouTube in their teaching; 76.4% of the teachers claimed that they would often use presentation software in their instructions. Fewer teachers would combine Facebook and social forums with their teaching, at 20.6% and 11.8% respectively. Email was more commonly used by these teachers (41.1%), whereas only 20.6% agreed that they would combine other teaching software, such as ebook and automatic feedback software, with their teaching.

The results showed that although the teachers had positive attitudes towards ICT integration, when it came to current practice, the percentages decreased except in the use of YouTube and PPT, which were the two most frequently adopted ICTs in language learning observed in this study. In the interview, most teachers agreed that the incorporation of technology into their courses was meaningful and emphasized the importance of using technology properly to achieve effectiveness in class. The following two excerpts are examples:

> I personally feel it's effective, and the main effect is that it makes our teaching more diversified and abundant.

> It's a tool, so it depends on how you use it and whether you use it properly. If you integrate it properly, your courses can be effective.

It can be inferred that teachers have positive attitudes toward ICT integration, but they are reluctant to use the technology in language courses. As Hall, Fisher, Musanti, and Halquist (2006) indicated, most teachers tend to teach students in the same way they were taught. Cox, Preston, and Cox (1999) also stated that teachers did not expect that more training would improve their practice after they had finished their initial training. Unal and Ozturk (2012) found that teachers lacked sufficient knowledge about innovative ICT-based instructional methods and practices to create a fundamental change in their teaching approaches and practices. A possible explanation was found in the responses to the second part of the questionnaire.

The second part of the questionnaire concerns the reasons that instructors might not use information technology in teaching (Table 2). Seventeen teachers suggested that some instructors might lack the ability to use the technology. Sixteen teachers felt that it might be because the instructor lacked preparation time, or they felt that it would be difficult to maintain class discipline. Nine teachers felt that the reason might be that the instructor did not think the technology could help with teaching and that the proposed technology was not necessary in language teaching. Concerning the latter, the responses were that the technology may not be needed for the content of the class, the technology is only an aid, not the focus of the class, and the technology may not be suitable in beginner or intermediate classes.

Table 2. Reasons why teachers do not use ICT

Items	Frequency	Reasons
1	17	Lack of ability to use technology
2	16	Difficult to maintain class discipline
3	12	Instructor did not think that the technology can help with teaching or that technology is necessary for language teaching
4	16	Lack of preparation time
5	15	Lack of related software or resources
6	13	Lack of information about technology training
7	9	Lack of support for using information technology or the assistance from administrative departments

Sixteen teachers felt that it might be because the instructor lacked preparation time, or felt that it would be difficult to keep the class discipline. Nine teachers felt that the reason might be the instructor did not think the technology could help with teaching and that the proposed technology was not necessary in language teaching. Concerning the latter, the responses were that technology may not be needed for the content of the class, technology is only an aid, not the focus of the class, and the technology may not be suitable in beginner or intermediate classes. Fifteen teachers noted that it might be because of the lack of related software or the difficulty in borrowing resources from the school. Thirteen teachers felt that it might have resulted from the lack of information about technology training for the instructor, and nine teachers commented that it might be because the instructor lacked support in using information technology or assistance from administrative departments.

The above results supported previous findings (e.g. Bingimlas, 2009; Marti, 2006) that that barriers to the successful integration of ICT in teaching and learning environments included individual (teacher-level barriers) and institutions (school-level barriers). Items 1–3 in Table 2 concern teacher-level barriers, and items 4–7 are about school-level barriers. Bingimlas (2009) indicated that the lack of confidence and competence were two critical components of ICT integration in schools. Earl (2002) and Marti (2006) also found that teacher expertise in ICT use was one of the driving or resisting forces. In the present study, Item 3 was related to teachers' negative attitudes and their inherent resistance to change, which is regarded as a significant barrier to ICT

integration (Bingimlas, 2009; Empirica, 2006; Richards, 2005). When teachers do not recognize the benefits of ICT, they show no desire to change their professional practice.

Regarding school-level barriers, Becta (2004) reported that some teachers stated that some aspects of ICT required more time to prepare traditional lessons (Earl, 2002; Sicilia, 2005; Trucano, 2005). The poor accessibility of relevant software and hardware was another constraint in ICT integration. With regard to the lack of information about technology training, researchers suggested that it is crucial to provide training for teachers to develop the pedagogical aspects of ICT, and not only focus on teachers' ICT skills (Beca, 2004; Cebrian, 2003; Cox, Preston, & Cox, 1999; Gisbert, 2001). Furthermore, poor administrative support will discourage the meaningful application of ICT in language courses.

The third part of the questionnaire related to the emotions involved when teachers adopt ICT in language courses.

Table 3. Emotions expressed by teachers

Category	Emotions	Frequency	Examples
Happiness (32)	1. Satisfied	20	1. The students have strong learning motivation, and are willing to learn actively. 2. The information is new, lively, and active.
	2. Excited	9	1. always find some new invention 2. Some contents advance with time; I can often learn something new.
	3. Curious	3	1. a lot of resources 2. much to learn
Sadness (11)	4. Disheartened	4	1. The students are not attentive to make notes, or they never go online to search for key points. 2. unstable and unreliable system
	5. Dispirited	7	1. The school's information technology system is messy; there is no way to integrate it. 2. The reaction from students may not be as good as expected.
Anxiety (22)	6. Anxious	8	1. I am not familiar with technology 2. When the information is not conveyed clearly or when the system froze.
	7. Insecure	7	1. I am not familiar with this software and how to apply it to school work. 2. The system sometimes fails to start, or it sometimes freezes; it makes me feel worried.
	8. Helpless	5	1. The school does not maintain the systems in time. 2. When the machine fails to work, I cannot fix it myself.
	9. Nervous	2	1. Unfamiliar 2. I am afraid that the computer may fail to work
Anger (16)	10. Irritated	5	1. Sometimes the machines are not cooperative, and the internet is too slow 2. Because the internet and technical problems may influence teaching quality without warning; for example, some classrooms installed trial software, some classrooms don't have them, and so the time may be delayed or we need to use more time to seek help from technicians.
	11. Frustration	6	1. equipment failure can waste time 2. I am not adept with using information technology, and not skillful enough in computers.
	12. Angry	5	1. The school equipment may break without warning and it may influence the teaching schedule. 2. Sometimes I announce something, some students still fail to do them

Twenty teachers noted that they are often satisfied with their use of technology in English lessons. They

expressed that the students were more willing to respond, had higher learning motivations, and had better concentration and interaction. They also suggested that using technology in teaching is more convenient and immediate. Similarly, nine teachers claimed that they were excited to use technology in their teaching, since they could also learn new techniques and knowledge in the process. In addition, three teachers highlighted that they would be curious about using the technology as they feel that there was much to learn and many resources to utilize.

In contrast, four teachers felt disheartened about using technology in English classrooms because the students might not take notes or be uninterested. In addition, the system might be unstable with no access to the internet. Teachers also experienced discouragement in using technology. Seven teachers stated that they were discouraged because sometimes the performance of the technology and the response from the students was not as good as expected. The school's information platform might be too messy to sort, and the students might feel that the information presented was too easy.

Eight teachers suggested that they would feel anxious about using information technology in their class. They stated that they were not familiar with the technology and had experienced of sudden failures of equipment. Seven teachers shared a feeling of insecurity about bringing technology into their English classrooms as they were not familiar with the technology and were afraid of encountering problems with the system. Similarly, two teachers commented that they would feel nervous when using technology while teaching because they were unfamiliar with the equipment and feared that the computer would not work. Because of equipment failure and lack of technical support, five teachers felt helpless when adopting technology in classrooms.

Similarly, five teachers were often irritated by technology in English classes because the computer and the equipment were problematic, and it took time to get assistance when the equipment failed to work. Frustration resulted from the experiences of six teachers with equipment failures and lack of ability with computers. Five teachers claimed that they felt angry at times when they used technology because if it suddenly failed to work, the class schedule was delayed. Furthermore, such delays distracted the students from the tasks at hand.

The results of the interview provided relevant information. Regarding the emotions that the teachers may encounter during the incorporation of technology into their classes, they stated that before using the technology in their courses, they would feel excited, nervous, and anxious as exemplified in the following excerpts.

> *When I am bringing it in, I would feel mostly excited, because I want to try to see the students' preferences or skills, so when I start I feel more excited.*

> *You're nervous because you're not sure if it can work. You worry students gonna like it or understand it, you worry that there'll be typical problem which I can counter.*

> *The anxiety to new materials on one side is the time spent on it; teachers have to be familiar with it and so they have to spend more time. So the first one is the concern for time, the second one is task difficulty.*

Other teachers claimed that worries and anxiety could be experiences before taking technology into the classroom because it entailed the adoption of new materials.

The teachers' emotions shifted to frustration or anxiety, which resulted from something that did not work in the process of applying the technology. Teachers may cope with these emotions by being prepared before class and reflecting after class on what did not work. Teachers expressed how they tried to feel less anxious as follows:

> *I need to be familiar with my teaching materials; second, I might need to go to the classroom environment to go through it, to make sure there is no problem. I need to lower my anxiety, and when I am prepared, I can lower my anxiety.*

> *Sometimes when I am more frustrated, I would think back after class, and do some reflections. I would think about what part went wrong, or what part I did better or need improvement, and I would adjust based on those parts.*

With regard to coping with students' emotions in class when using technology, some teachers suggested that being prepared and explaining to the students about what to do was important. One teacher reported the following:

I try to alleviate their worries by explaining things, showing things, them how to use that, giving examples.… I guess I try to teach them how to avoid these kinds of things, but if there is a computer problem, I just move on something else then come back to it later which kind of through this class of a little bit but they must can do better. So try to be prepared with the backup.

Another teacher echoed the latter part of what the previous teacher said, saying:

If we have no connections to the Internet, we would find backup plans. We may skip this section today and not let students just idle and wait.

Teachers also provide several suggestions for teachers would wish to bring technology into their classrooms. Numerous teachers think that it is a positive thing to incorporate technology in courses, and it's the trend of the future.

It's an unavoidable trend. We believe that technology will continue to innovate, continue to become use friendly; the difficulties we face now may be simplified and made easier.

However, some teachers also warned about the use of technology.

Technology is still a tool for teaching. One doesn't have to be controlled by the technology.

Teachers have to think about what the students are capable of doing. They have to think about what is available to them, what they can use, what they should use and try to learn more about it and feel comfortable doing this before the implementation of ICT.

Desjardins and Peters (2007) suggested that future teachers should embrace the idea of becoming lifelong learners and keep up with the pace of technological innovation and integration. They would thus become as autonomous and constructive in learning processes as their future students would be.

CONCLUSIONS AND SUGGESTIONS

The results of this study revealed that for the most part, the instructors had positive attitudes when they approached the implementation of ICT in their classes. However, a gap exists between the extent to which teachers enjoy using technology and the degree to which they use the technology in their classes. The most common communication tools used by teachers are PPT presentations and YouTube. Fewer teachers used common social websites such as Facebook. It was observed that currently, teaching websites and software are not commonly used by teachers in classes.

It can be inferred that teachers have positive attitudes toward integrating ICT integration but they are reluctant to use it in language courses. Previous research indicated that teachers lacked proper training and adequate knowledge to make use of ICT. The present study sought answers directly from the instructors. The results indicated two types of burdens: on the individual (i.e., the teacher) and on the institution. On the individual level, some teachers felt that they did not have sufficient knowledge about the technology, found it difficult to maintain class discipline, or had insufficient preparation time. In addition, a few participants did not find it necessary to introduce ICT into their curriculum. On the institution level, the school might not provide enough training, equipment, and support for the implementation of ICT.

Regarding the emotions expressed by teachers, most were satisfied with and excited about their utilization of ICT. Some were also curious about how ICT could improve language instruction. Some negative emotions included dispiritedness, anxiety, and insecurity. Frustration, anger, irritation and helplessness were also expressed. The negative emotions often resulted from unexpected responses, student performance, or the technological equipment.

The major difficulty faced in the study is that although ICT is a growing trend, its current practice is still not widespread enough to yielding significant amounts of data for observation. Because each school has a specific budget and policies, the standards of ICT application can differ from case to case. The willingness of teachers to use ICT in courses also varies. Research could gather more relevant data and produce more comprehensive results when the utilization ICT implementation increases in the near future. Hence, schools and faculties can be interviewed as subjects.

The research revealed positive attitudes of the teacher participants towards the incorporation of technology in

language courses. They agreed that ICT is the trend of the future. Instructors were recommended to prepare by familiarizing themselves with the system that they will be using. Teachers play the role of not only instructors but also learners in keeping pace with technological innovation and integrating technology to provide useful, efficient and adequate materials and tools for students. Teachers should also have alternate lesson plans in case the ICT equipment malfunctions. Finally, instructors should consider the students' perspective and be aware of what is available, what can be used, and what should be used. In order to succeed in the implementation of ICT, teachers need to gain the knowledge and skills that would increase their levels of comfort and confidence in using this technology.

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Appendix
Research Questionnaire

Dear Instructor:

Thank you for taking part in the 2012 National Science Council's questionnaire regarding the emotions involved in the integration of ICT to English teaching and learning. The purpose of this questionnaire is to understand the current status of the application of information technology in language education. Please answer all the items below and place a checkmark in the appropriate box □. All of the data collected are anonymous and will be used for academic research only. Thank you for your time.

1. **Contents**

Item **(1) Information literacy and attitude of the instructor**	SA	A	SA	D	SD
1. My school offers sufficient information technological equipment for instructors to apply in teaching.	□	□	□	□	□
2. My school provides clear targets for instructors to use information technology in teaching.	□	□	□	□	□
3. My willingness to use information technology in teaching is affected by whether I receive assistance from colleagues.	□	□	□	□	□
4. I think the use of information technology enriches the content of teaching.	□	□	□	□	□
5. I think the use of information technology to assist English teaching raises the quality of teaching.	□	□	□	□	□
6. I think the use of information technology increases interaction in class.	□	□	□	□	□
7. I think the use of information technology increases the students' willingness to learn English.	□	□	□	□	□
8. I often take part in seminars or lectures to improve my ability to use information technology.	□	□	□	□	□
9. I often use my own teaching website to help students learn English because students can interact at any time.	□	□	□	□	□
10. I often use the school's teaching website to help students learn English because students can interact at any time.	□	□	□	□	□
11. I often use YouTube in class as it provides videos of actual scenarios.	□	□	□	□	□
12. I often use briefings in teaching because the visual information provided helps the students to learn.	□	□	□	□	□
13. I often use Facebook in teaching because it offers real time discussion.	□	□	□	□	□
14. I often use internet forums in teaching because they offers interactive discussions.	□	□	□	□	□
15. I often use email in teaching because it provides a complete record of sending and receiving.	□	□	□	□	□
	Strongly agree	Agree	Somewhat agree	Disagree	Strongly disagree
16. I often use teaching software (e.g., ebook, automatic feedback software) in teaching because self-directed learning is available at any time.	□	□	□	□	□

17. Other:

(2) The reasons instructors do not use information technology (multiple selections accepted)

□The instructor does not have sufficient time to prepare.
□The instructor lacks support for using information technology.
□The instructor does not think that information technology helps in teaching.
□The instructor lacks the abilities necessary for using information technology.
□The instructor lacks relative information or information technology training.
□The instructor lacks assistance from administrative departments.
□The instructor thinks that it is difficult to maintain discipline in class.
□The instructor thinks that the students lack related information about technological abilities.
□The school lacks related teaching software.
□It is difficult to borrow or keep related resources (e.g., user manuals and troubleshooting material).
□Other:_____

(3) The emotions of instructors using information technology: Please check the emotions you often experience when using information technology in English classes, and describe the learning environment and the reasons for the emotion.

□1 I often feel Satisfied because:

□2 I often feel Disheartened because:

□3 I often feel Anxious because:

□4 I often feel Irritable because:

□5 I often feel Excited because:

□6 I often feel Discouraged because:

□7 I often feel Insecure because:

□8 I often feel Frustrated because:

□9 I often feel Curious because:

□10 I often feel Helpless because:

□11 I often feel Nervous because:

□12 I often feel Angry because:

□13. I often feel other emotions because:

<u>Thank you again for your time and assistance</u>

Appendix II
Interview questions for university teachers

1. Do you think that the integration of ICT into English courses is effective? Why or why not?

2. What emotions have you encountered before/during/after the integration of ICT into English courses? When and why? How do the emotions influence your teaching (e.g., give up the integration of ICT into English courses or adjust ways to integrate ICT into English courses)

3. How do you cope with your emotions?

4. How do you cope with students' emotions that result from the integration of ICT into English courses (e.g., impatient, anxious, or bored)? Please give examples.

5. Please give suggestions to teachers who are interested in the integration of ICT into English courses in higher education: