Academic Writing in Computer-mediated Communication:
Student Attitudes and Expectations

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Introduction

Information and communication technology has dramatically changed how information is being exchanged and the way we communicate. People are using their computers, tablets or phones while surfing the Internet, replying emails, visiting websites, looking for information and so on. Facebook, LinkedIn, Twitter and WeChat are also used as a global tool for communication. When digital devices are so popular everywhere, they have also changed the way we teach and learn gradually. Educational institutions have introduced a wide range of technological learning equipment/platform and teachers have tried to organize various kinds of online learning activities for students. A new teaching and learning mode has thus emerged and will continue to evolve. While everyone is so keen on digital devices for various purposes like learning and fun, it is also important to understand how these devices help students learn and whether they are effective to learning. Therefore, this paper aims to investigate the student attitudes towards and expectation of language learning with the use of the digital devices and online activities.

Theoretical Framework

In this research, constructivism and interactivity are the key principles of using technologies to create a good pedagogical environment for language teaching and learning. In constructivist theory of learning, there are Piaget's cognitive constructivism, Dewey's theory of experiential education, Bruner's theory of active learning, and Vygotsky's social constructivism. Piaget's theory (1973) stated that learners learn 'naturally' through their interaction with the environment but not through information given by the teacher. Another theory suggested by Dewey (1963) pointed out that knowledge is created by the learners themselves, but is not the result of Piaget's cognitive development. In addition to Dewey, Bruner (1990) also stressed that learners construct new ideas based upon their current/past knowledge while Vygotsky (1978) emphasized that learning must be taken place in a social environment.

Since 'knowledge cannot be taught but must be constructed by the learner' (Candy, 1991, p.35), it is important to provide an appropriate environment where learners can interact with others so as to gain knowledge. This corresponds to the distinguishing features of ICT. With ICT's five distinguishing features (i.e. text-based and computer-mediated interaction, many-to-many communication, time- and place-independence, long distance exchanges, and hypermedia links) (Warschauer, 1997), teachers can make good use of computer/online activities to provide the learning environment for students to learn because 'Computer activities can serve as a catalyst that brings students together to interact, negotiate meaning, and negotiate strategies related to the task at hand' (Johnson, 1985, p.5). From the perspective of second language learning,

computer activities especially writing are crucial and effective. For instance, "when students have daily access to Internet-connected laptops, they conduct more background research for their writing; they write, revise, and publish more; they get more feedback on their writing; they write in a wider variety of genres and formats; and they produce higher quality writing" (Warschauer, 2010, p.221). Computer activities, in this regard, can help students construct their knowledge. This corresponds to the fact that constructivist theory views effective learning as 'active' learning. If knowledge is constructed uniquely within each individual through processes of social interaction, learning will be most effective especially when students are fully involved in decisions about the content and processes of learning and engaged in communicative activities (Benson, 2001). In this sense, social interaction can be appropriately provided with the virtual learning platform through which students can take charge of their learning content and process. They can determine when, what and how to do with the provided online resources and gradually construct their knowledge.

It is not uncommon to integrate online activities into traditional teaching and learning. While we believe that computer activities can help students learn better, it is essential to examine their attitudes and expectations because researches showed that student attitudes towards web-based learning are important to effective web-based instruction (Peng et al., 2006, Tsai, 2009, Tsai et al., 2001 and Yang and Tsai, 2008). In order to understand the effectiveness of the computer activities, the objective of this research is to investigate student perceptions of the application of digital devices and online activities, and their expectation in using ICT for learning. Since constructivist theory view teachers as facilitators, it is also significant to study the role of teachers in the application of ICT for teaching and learning.

Background

A group of 22 students studying English for Academic Studies II (EAS II) in a tertiary institution was chosen as the subjects for the research. The module is a core subject for all students during their first year and they are required to complete an academic research project, which is the main assessment component of the course. To help them collect relevant information, read relevant literature and write the research paper, a series of related online activities including posting & sharing relevant online articles, discussion, writing activities (i.e. reading articles, exchanging opinions and giving comments) and grammar exercises was designed and implemented in the second semester of their study. To align with constructivism and interactivity, the students were given freedom to choose what to study, how to investigate, and what to write. All the activities were not compulsory but strongly recommended to complete

according to their own pace. By working in a group of four or five, they could exchange information/ideas and enjoy all benefits of group work.

This research is designed to:

- examine students perceptions of using ICT for doing the research paper

- find out their expectation of learning with ICT

- study their perceptions of the role of teachers during their learning process

A questionnaire was distributed to a class of 22 business students at the end of the semester. The questionnaire, which was modified from the questionnaire developed by Gregor et al (2008), includes 55 closed- and open- ended questions and covers 3 sections including students' perception of ICT, their expectation of learning through ICT and the role of the teacher. The questionnaire was designed with reference to Likert scale. 1 stands for 'Strongly Agree', 2 'Agree', 3 'Disagree' and 4 'Strongly Disagree'.

Results & Discussion

Student Perception of ICT

Students have favorable attitudes towards using ICT for their study. As showed in Table 1, students agreed to the statements. ICT could help enhance their pace of work, make it easier for them to follow the course and pass the course. Besides, they had a pleasant atmosphere in the classroom and developed social relationship with their group with the use of ICT. Above all, they thought that ICT helped them do their academic homework better and faster. In a nutshell, these not only reflected the effectiveness of ICT in teaching and learning but also showed the advantages of using ICT in teaching and learning. In addition to Warschauer's comments about ICT's features, ICT can act as a good tool to help create a pleasant learning environment/classroom and build up social relationship among students. These are extremely important to motivate students to learn.

Table 1: Student Perception of ICT

	Mean
1. ICT help to generate a pleasant atmosphere in the classroom	2.3
2. ICT allow me to publicly show what I do for the subjects.	2
3. ICT can enhance the pace of work.	1.9
4. ICT facilitate my social relationship with the group	2.1
5. ICT help me to follow the course	2.2
6. ICT make it easier for me to pass the course.	2.3
7. ICT help me do my academic homework better.	1.7
8. ICT help me do my academic homework faster.	1.8

Needless to say, ICT have positive impacts on teaching and learning. But how can ICT be used to facilitate students' learning? In this research, a virtual learning platform, Moodle, was used. This platform contains a lot of common functions such as bulletin board, forum, message, resources storage, communication and so on. In the open-ended questions, students pointed out that there were many useful functions in Moodle. Table 2 summarized all favorite functions students had mentioned. Among all, they liked to download notes and exercises and check latest information most when they accessed to Moodle. And the common functions they like to use included checking emails and downloading notes and exercises.

Table 2: Functions Students like to use

Upload notes and exercises	Message function
Check latest information	Exam papers (a link to official college database)
Download notes	Online exercises
Forum	Well-organized notes
Instant communication	Record of notes and materials
Library (a link to official college library)	View online notes

With the functions Moodle can provide, they liked using Moodle for learning as reflected in Table 3. They also thought that Moodle could make their learning easier and better. Moreover, Moodle was useful for them to learn the subject and facilitated their overall learning. More importantly, they found the pre-designed online activities placed into Moodle useful and effective for their study, especially research project. The online activities included searching for relevant online articles, sharing and discussion, writing comments and summary about the articles and grammar exercises.

In other words, they thought that the online exercises and task could help them to study better in the module.

Table 3: Student Perception of Moodle

	Mean
10. I like using Moodle for learning.	2.2
11. Moodle is useful for me to learn the subject.	2.3
12. Moodle makes my learning easier.	2.2
13. Moodle makes my learning better.	2.3
14. Moodle facilitates my overall learning.	2.2
15. The online task (i.e. searching for secondary resources, discussion and writing) is helpful for me to do the research project.	1.9
16. The online exercises (i.e. language skills) can help consolidate my knowledge.	2.1

One important point worthy to note is that students thought that their success relied on what the teacher did through ICT and in the classroom (See Table 4). More students thought that their success of learning relied much more on the teacher rather that themselves or their classmates (group mates). This reflects that students are dependent learners and they did not think that they were solely responsible for their studies. This then not only undermines their willingness to study but also impair their learning. As Candy (1991) said, active learning means effective learning. If they put the responsibility on their teachers, it is difficult for them to achieve good learning outcome. Especially when we talk about language learning, it requires a lot of personal effort and time. To rectify students' perception about learning or success of learning, teachers may need to design exercises or tasks which can gradually lead them to take charge of their own learning. Independent language learning should be applied in this regard.

Table 4: Student Perception of Success

	Mean
17. I believe the success of my learning depends on what I do with ICT.	2.5
18. I believe the success of my learning depends on what my classmates do with ICT.	2.5
19. I believe the success of my learning depends on what the teacher does in the classroom.	2.2
20. I believe the success of my learning depends on what the teacher does through ICT.	2.2

Students' Expectation of Learning with ICT

Students generally liked to use ICT for learning and they want to use various digital devices including computer, tablet, mobile phone, and the web to help them to study in the college. As showed in Table 5, students liked to use a computer or a tablet for English study and to create documents and multimedia presentations. In addition, they liked to use a mobile phone for various functions such as sending or receiving messages/emails and accessing web based information or services. Other than the hardware and software, they also liked to use the web and Moodle for learning. Among all functions that the web offers, they usually liked to use online dictionaries and Google to look up or search for information. It is clear that they have favorable attitudes towards using ICT for learning. However, one point worthy for noting is that, comparatively speaking, they did not enjoy building a website or writing a blog for learning much. Therefore, it is important for teachers to consider what activities are truly favored by their students when they try to integrate online activities to formal teaching and learning.

Table 5: Students' Expectation of Learning with ICT – A computer/ a tablet

	Mean
34. A computer / a tablet (e.g. I-pad) for English study	1.6
35. A computer / a tablet to create documents (e.g. using Word, Excel, PDFs)	1.6
36. A computer / a tablet to create web pages (e.g. using Dreamweaver, FrontPage)	2.3
37. A computer / a tablet to create multimedia presentations (e.g. PowerPoint, Director)	1.6
38. The web to access a learning portal (e.g. Moodle)	1.6
39. The web to look up or search for information (e.g. online dictionaries, Google)	1.5
40. The web for instant messaging/ chat (e.g. MSN, Yahoo, ICQ)	2.2
41. The web to build and maintain a website	2.3
42. The web to download audio or video files (e.g. YouTube, podcasts, iTunes)	2.0
43. The web for web conferencing (e.g. using a webcam)	2.6
44. The web to read RSS feeds (e.g. news feeds)	2.5
45. The web to keep my own blog or vlog	2.8
46. Social networking software on the web (e.g. MySpace, Trendster)	2.2
47. A mobile phone to send or receive text messages/ SMSs	1.7
48. A mobile phone as a personal organizer (e.g. diary, address book)	2.0
49. A mobile phone to access web based information or services	1.6
50. A mobile phone to send or receive email	1.6

Students' Perception of the Role of Teacher

Broadly speaking, students believed that the role of teacher was helpful and vital to their study. As showed in Table 6, the students thought that the teacher could make good use of ICT like Moodle and online activities to help them learn effectively and complete their research project. Moreover, ICT made the communication among the teacher and students better. ICT helped students to explain their problems to the teacher who could guide them to do the group projects. Furthermore, the teacher provided various online activities including homework, exercises and readings and opportunities to students to learn English and complete the research project. From that we can see, when teachers can provide a social environment for students to interact and learn together, students can learn satisfactorily and independently with the resources provided. This directly corresponds to constructivism that students can construct knowledge through the interaction with the environment and others. Besides, ITC have also played a significant role in effective learning when the teacher can make good use of it.

Table 6: Role of Teachers

	Mean
21. ICT allow me to better communicate with my teacher.	2.1
22. ICT enable the teacher to pay more attention to us.	2.5
23. ICT help me to explain my problems to the teacher.	2.3
24. ICT help the teacher to guide the group projects.	2.2
25. The teacher can guide me to do the project better with ICT.	2.0
26. The teacher can help me learn with ICT effectively.	2.0
27. The teacher can use ICT to help me to learn better.	2.0
28. The teacher can use online activities to help me complete the research project.	2.1
29. The teacher can use various online activities to help me learn English.	1.9
30. The teacher creates opportunities for me to use English through ICT.	2.0
31. The teacher gives me online homework, exercises and readings.	2.2
32. The teacher makes good use of ICT for teaching.	2.0
33. The teacher makes good use of Moodle for teaching and learning.	2.0

The answers that the students gave in the open-ended questions could fairly explain why they had positive attitudes towards the role of teachers in using ICT for teaching and learning. Firstly, students agreed that teachers should use ICT for teaching and learning because of ICT can "be interesting", 'be convenient', 'be easy to use', "be

efficient", "be effective, especially when there are lots of students", "attract attention from students", "have better communication", "allow students to learn at home", "make it faster to upload exercises", " be more interactive", "allow students to learn better" and " be useful for learning". From that we can see, ICT can really facilitate students to learn better with the help of the teacher.

To further perfect the learning process, students suggested that teachers could further enhance their study by doing the following:

- provide more online exercises and sample questions

- create more group forums for discussion and sharing

- provide useful links

- provide marking scheme of assignments

Conclusion

The favorable results of this research show that constructivism and interactivity are crucial elements in effective language teaching and learning when information and communication technology are applied. As learners can only construct knowledge by themselves through the social environment, computer activities play a significant role because they can really bring students together to work towards a common goal – the research paper in this case. To further strengthen their competence, a wide range of online exercises and useful links for learning should be provided. In addition to online activities, the virtual learning platform also contributes to the successful use of ICT in teaching and learning because it provides a lot of useful functions for students to learn faster and better. In the 21st century, it seems that ICT becomes indispensable when we talk about the provision of an enjoyable learning environment for students to learn. Nevertheless, the appropriate online activities are also imperative.

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