



Technologies and Techniques for Effective Language Learning

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Abstract

This paper presents a series of experimentations of instructional methods and technologies implemented in a foreign language class. By analyzing the result of using online quizzing, online lecture, impromptu curriculum design, multimedia project, and student-created final exam, the research demonstrated a significant impact of learner involvement on the outcome of learning. It found that by getting students involved in the learning process from assignment design to content coverage to final exam design and preparation, it creates a sense of ownership among the students to integrate language learning with their life experiences and personal learning goals.

The paper also introduces innovative ways of selecting and using technological tools to engage students and the ways to make them the driver of these tools. In addition to instructor-led online quiz developed in a learning management system and online lecture created with Camtasia, the course offers students the opportunities to use Voicethread for multimedia presentation, Wimba synchronous classroom for online character writing competition, and Digication, an ePortfolio system to document their learning.

With the enormous amount of online resources and the increasing number of delivering and communication tools, the digital era offers tremendous opportunities to bring learning to the 2.0 level where knowledge is co-constructed by both learners and the teachers. Through this case study of a foreign language course, the authors call for further discussion on the role of individual course in the creation of integrative knowledge beyond the subject matter since in the 2.0 era no discipline can stay in isolation from the others and knowledge building is taking place both in and outside of the classrooms.

1. Introduction

For the last twenty years, technology, in various forms and shapes, has managed to penetrate our lives and reshape the way we live, learn, and communicate. Students growing up in today's technology-enriched environment demand the inclusion of technologies in ways that satisfy their needs and preferences. When using the Internet, they are not just passive information consumers but active producers of knowledge. They seek for creative ways to contribute, communicate, and collaborate by utilizing a variety of tools that enable them to generate and share ideas (Rahim and Matin, 2010).

When it comes to language learning, what kind of impact does technology have on the outcome of learning? What drives the impact? Does the answer lie on the technology or rather, on how it is being used?

In searching to answer these questions, the instructor of a Chinese language class selected six tools from the list of twelve 2.0 tools identified by researchers in 2009 (Bower, Hedberg and Kuswara, 2009), which include presentation tools, image creation and editing, use of audio, video editing and sharing, screen



recording, and digital storytelling. The focus of the study, however, is not on the use of the tools, but rather, the impact of various teaching methods for which these tools were incorporated.

As indicated by the National Capital Language Resource Center (NCLRC 2003), in language classrooms in the United States, instruction focuses on the learner and the learning process. The instructor creates a learning environment that resembles as much as possible the one in which students learned their first language. Yet, most of the curriculum for Chinese was based on the conventional way of second language learning, which focuses primarily on recitation and grammar drills. One assumption made before conducting the research is that students master the content better when they were given the opportunity to be actively involved in the class as project creators, teachers, and evaluators.

2. Purpose of the Study

The major purpose of the study is to identify instructional method(s) that can effectively impact the outcome of student learning. The content of the course was covered using a variety of instructional methods that were beyond the traditional lecture and test format of foreign language instruction. By examining the impact of online quizzing, online lecture, impromptu curriculum design, multimedia project, and student-created final exam, the study aims at finding the methods that have the most positive impact on the outcome of learning as well as the reason behind such impact.

Since many of the selected instructional methods were enabled through the use of technology, the study also intends to find out what technologies seems to be helpful for learning and how they should be incorporated into the teaching and learning process.

3. Course Design

CHN103 Beginning Chinese III is an undergraduate course offered by the Modern Language department of DePaul University. Based on knowledge gained in Beginning Chinese I and II, the course expands students' collection of Chinese words and phrases to apply in speaking, listening, reading, and writing. It aims to stimulate student interest in Chinese language and culture while seeking for effective ways to master Chinese during class and in the future.

During a ten-week term, students are expected to master vocabularies, grammars, and sentence structures covered in four chapters, each forms a learning module of its own. Listed as a face-to-face course, students are expected to meet in class twice a week and the degree to which technology can be used to augment the class is completely up to the instructor.

In addition to lecture and interactive activities taken place in the classroom, the instructor deployed the following instructional methods:

Online Quizzes

To save class time and to provide students with the opportunity to practice listening skills repeatedly, the instructor decided to move all listening comprehension tests online. The recorded sentences are saved as MPS files and attached to the questions in the quizzes on Blackboard learning management system. Students were allowed to listen to the audio file as many times as they want until they are satisfied with their answers.



Online Lecture

For module 3 and 4, instead of presenting the materials in the classroom, the instructor recorded the lecture using a screen recording and video editing tool called Camtasia (<http://www.techsmith.com/camtasia/>). The recorded lecture was posted on the course website for students to access. A tablet PC is used to demonstrate the order of the strokes when writing the Chinese characters.

Multimedia Project

Students were required to create one multimedia project including Chinese narration and visuals using Voicethread (<http://voicethread.com>). The presentation addresses the topic covered in the given module and is evaluated on correctness of grammar, pronunciation, presentation, and creativity. After viewing the presentation in class, author of the project asks three questions pertinent to the presentation to his or her classmates. Whether the classmates were able to answer the questions was used as a judgment factor on the clarity and the accuracy of the presentation. Presentations created by the students were later entered into their ePortfolios on Digication (<http://depaul.digication.com>).

Impromptu Curriculum Design

During the term, one learning module that covers the topic of unfortunate accident was replaced with the earth quake in China's Sichuan province, which received massive news coverage at the time. Vocabulary and phrases pertinent to earth quake and expression of emotions were created and taught during class. Stories and a poem were shared with students in class and online.

Student-created Final Exam and Student-led Final Review

Students were divided into four groups through a drawing process. Each group was in charge of creating final exam questions for the learning module they had picked. The group also prepared a final preparation session for which they prepared study guide, design learning activities, and present sample questions.

Different teaching and learning strategies were implemented in different learning modules (see Table 1):

Table 1. Teaching and Learning Strategies for CHN103

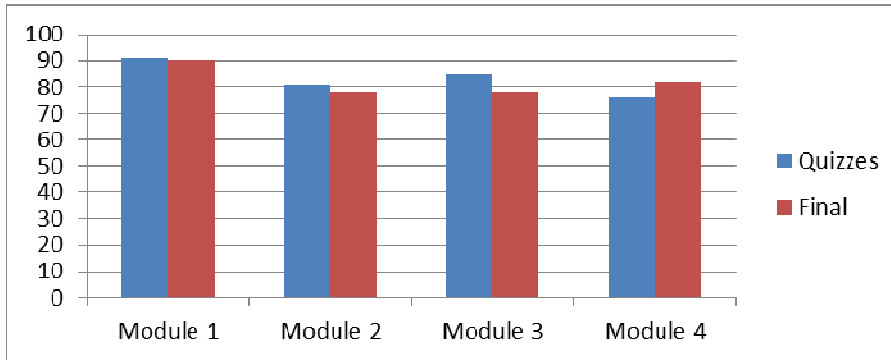
	Module 1	Module 2	Module 3	Module 4
In-class lecture	X	X		
Online lecture (Camtasia/Wimba)			X	X
Multimedia Project (Voicethread)		X		
Textbook	X	X	X	
Online resources (PPT, Web Sites)		X		X

4.Finding

In addition to presentation and class participation, student mastery of content was assessed through three means: end-of-the-module quizzes, final exam, and end-of-the-term class survey. The final exam was broken down by four modules.

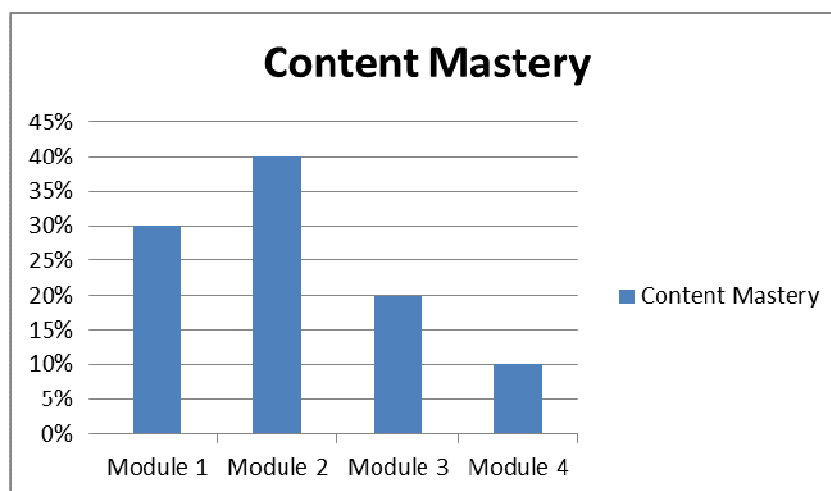
As indicated in Figure 1, there is no significant difference between the average score achieved by students in quizzes and final exams for four modules.

Figure 1. Quizzes and Final Grades for CHN103



However, when students were surveyed on which of the module that they felt that they have mastered the best, significant difference was found in rating. Forty percent of the students indicated that they felt that they had mastered module 2 the best, 30% picked module 1, 20% for module 3, and only 10 for module 4 (see Figure 2).

Figure 2: Student Survey on Content Mastery



In the open-ended question where students were asked to explain what made them master the content of one module better than the others, the primary reason given by the students was that they have to prepare final questions and teach the class about content covered in the module. The reason for module 2 being selected is primarily due to the requirement of the multimedia project.

5. Conclusion

With abundant amount of online resources and a variety of delivering and communication tools, the digital era offers a tremendous number of opportunities to bring learning to the 2.0 level where knowledge is co-constructed by both learners and the teachers in a collaborative environment. Using this foreign language class as a test bed, the instructor experimented with a number of technological tools including Voicethread, Camtasia, Audacity, and Blackboard. Despite all the technologies used, result of the case study clearly indicated that technology itself cannot make a difference in learning. Instead, it is how one



chooses to use it or in other word, the strategies implemented in the class, which may happen with or without the use of technology.

While Web 2.0 has served as an enabler of everyday and everyone authorship, it also supports the ancient educational philosophy of involvement. Back in the fifth century B.C., Confucius had pointed out, "What I hear I forget, what I see I remember, what I do I understand." (Brody 1994). Such statement was further testified by a study conducted at the University of Texas, which found that while people remember only 20% of what hear, they maintain 90% of what they do and say in their memory (Metcalf 1997):

Many related the behavior of "do and say" to the action of teaching believing that one learns the best when they are put into the position to teach the subject.

The finding of the case study presented in this paper provides yet another artifact to this argument. Students gained more knowledge and confidence through the preparation of teaching and testing materials and through the act of teaching the session.

Another finding of the study is on the use of multimedia project as a strategy to engage student in multi-sensory learning where they, both as presenters and as audience, have to use visual, verbal, and auditory skills to produce and to comprehend. Tools like Voicethread provided the opportunity to utilize all the skills as well as capturing and storing them for reviews and comments. This becomes a critical element for ePortfolio, which is another aspect of eLearning 2.0.

Even though the use of impromptu curriculum design didn't leave any positive marks in the learning result, it is worth further exploration. In this case study, all the related materials were selected by the instructor with the assumption that the currency and global impact of the event will generate interest of the student. But there was no student involvement in selecting any of the materials. What if we let the students be the selector, researcher, and contributor of the topic? What if they work together with the instructor in selecting something that is interesting or useful to them? And what if we give them the opportunity to blend language learning with the other areas that they are studying, such as philosophy, journalism, communication, business?

While as a small scale experiment, it is our hope to use this case study as a call for further exploration on the role of individual course in the creation of integrative knowledge beyond the subject matter since in the 2.0 era no discipline can stay in isolation from the others and that includes the discipline of teaching and learning.

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