Evaluating multimedia courseware: A study on the effectiveness of hotel English

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Abstract

Recent focus on the promotion of Taiwan tourism has resulted in the increase of ESP Tourism courses. With the benefits of using CALL, this study will focus on evaluating the effectiveness of the courseware "English for Hotel Staff". This single group pre/post-test quasi-experimental study will focus on the usage of the courseware. The courseware is composed of ten units covering a particular area pertinent to a hotel's daily business. This study will be able to help bring into light the actual effectiveness of courseware related pedagogical advances.

Keywords: hotel English; hotel conversation; tourism English; case study; quasi-experimental study

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Nature of classroom environment and achievement in integrated science:**

1. Introduction

Education is ever changing; advances in technology has provided a giant leap for educators in all levels of education (Dunn, 2012). This is even more evident in the areas of second/foreign language learning (Salaberry, 2001). Classroom learning has become enrich with various types of technology (gadgets). Access to information is as easy as a few press of the keyboard or a few swipe of the finger. Within the domain of foreign language learning; the concept of Computer Assisted Language Learning (CALL) has truly embraced the benefits of technology brings to education (Kozma, 1991; Warschauer & Healey, 1998). The process of language learning today is rich with media; more specifically a combination of various media, hence the term multimedia.

The use of technology in language learning; more specifically in English for Specific (ESP) purposes have shown to be able to foster positive learning outcomes (Rusanganwa, 2012). Within the ESP learning; beside Business English, Tourism English is also very important. More so for Taiwan, wherein the goal is to further develop local sceneries into international travel destinations (Taiwan External Trade Development Council, 2010). Hence, preparing and training future human resources capable of handling international tourist is of much importance.

With the rise in importance of Tourism English and the prevalent use of multimedia in CALL pedagogies, this case study is focus on the evaluation of a CALL courseware. More importantly, this courseware is specifically designed for learning Hotel English. As Taiwan embarks toward the enhancement of its tourism industry (Taiwan External Trade Development Council, 2010). The trend of using technology in teaching ESP has become an increasingly important element for the education of Taiwan students. Therefore, it is quite important to know how effective such teaching methodology is to Taiwanese students.

1.1 Research questions

With a primary objective of evaluating the effectives of a Hotel English courseware, initial research questions are generated as follows:

➢   What are the benefits of a Hotel English courseware?

➢   What are the challenges in implementing a Hotel English courseware?

➢   What are the perceived implications of a Hotel English courseware?

2. Literature review

2.1 Importance of Tourism in Taiwan

Since the 1990s, Taiwan has enjoyed a dynamic capitalist economy with a gradual decreasing in government control of investment and foreign trade. Generally speaking, exports have provided the primary impetus for Taiwan's development; the trade surplus has been substantial up to August, 2010 (CENS, 2011). In addition, growing economic ties with mainland China since the1990s have led to the successful move of much of Taiwan's assembly of parts and equipment for production of export goods to developed countries. More importantly, increase tourists not only from mainland China, but in English speaking countries have been seen.

Hence, more recently (last decade or so), an increased emphasis is placed on the expansion of the tourism industry (Taiwan External Trade Development Council, 2010). Such phenomenon has undoubtedly increased the importance of ESP Tourism courses development in higher education institutions throughout Taiwan.

2.2 Computer Assisted Language Learning

Computer Assisted Language Learning (CALL) may be defined as the *search for and study of applications of the computer in language teaching and learning* (Levy, 1997, p. 1). After a few years, Chapelle (2001, p. 3) proposes that CALL generally refers to the *domain of technology and second language teaching and learning.* However, recent advances in information technology have led Beatty (2003, p. 7) to note that CALL is wherein a *learner uses a computer and, as a result, improves his or her language*. In essence, CALL pedagogy relies on the use of interactive multimedia to integrates language skills (listening, speaking, reading, and writing) provide authentic learning experiments, offer learners control over their learning and also focus on the content (Cohen, Manion, & Morrison, 2007; Tsai, 2010).

Recent CALL trends include courseware development and its application in a classroom setting (Wyatt, 1983). More specifically, CALL design and use have been focused on courses related to ESP (Flowerdew, 1995; Jiménez & Casado, 2004). Tsai (2009) uses a courseware developed for teaching ESP Technology English. Students reported to have benefited from the courseware usage. Furthermore, students' claims that they are comfortable learning English with the use of the courseware (Tsai, 2009).

Within ESP courses of Tourism English; multimedia learning environment through presentations of introductory texts and practice conversations (focus on tourism), have shown to provide positive learning outcomes such as listening, speaking, reading, writing and translation (Tsai & Kung, 2005). More important, the said courseware is able to help students of different study background and not limited to the English or Tourism related field of study. In an earlier study, Atan (1997) uses a multimedia learning environment to reinforce an ESP course in Hotel and Tourism Management. A total of 16 students participated in the study; pre/post tests are conducted with random follow-up interviews. Results show that students performed better when they were given visual support in comparison to textual (Atan, 1997).

In sum, multimedia learning or CALL has provided great potentials. However, course availability is much limited to faculties much related to technology, since, practitioner in these fields are more competent and knowledgeable of multimedia software (Tsai, 2009). Hence, additional study is encouraged to further the understanding of such pedagogical advances.

3. Research methodology

This research is designed as a case study, wherein the primary objective is to investigate a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 1984, p. 23). Furthermore, Merriam (1998) views a case as an individual, a program, a class or students, a school, or a community. She fashions the distinctiveness of case studies as particularistic because of the focus on one social unit; descriptive because they result in a rich thick portrait; and heuristic because case studies sharpen readers' understanding while leading to a new meanings.

Furthermore, this study is also designed as a quasi-experimental. Quasi-experimental design approximates the true experimental design, wherein there are no random assignments of participants (Cohen et al., 2007). This type of research design is quite common in the classroom setting, which are already intact and organized for an instructional purpose. More specifically this study is a single group pre/post-test only design, wherein the researcher gives a treatment and then measures the dependent variable(s) (McMillan & Schumacher, 2010). For the current study, the treatment is the courseware Hotel English. While, the dependent variables are the vocabulary test scores (teacher made tests), scenario role play scores, academic grades, and TOEIC test scores.

3.1 English for hotel staff

English for Hotel Staff is a multimedia ESP course designed to provide a course of interactive materials for staff in the hotel industry who wish to improve and upgrade their specialist English language skills, or for students preparing for hotel employment. The level is pre-intermediate to intermediate. There are ten units. Each unit covers a particular area pertinent to a hotel's daily business, e.g. checking in and checking out, talking about rooms and hotel equipment, hotel services such as food and drink, discussing activities, giving advice, dealing with complaints, etc.

Each unit contains 12 exercises. These include a number of listening exercises (video and audio); using speakers with a wide range of accents (both native and non-native speaker), as well as vocabulary learning exercises, and reading and writing exercises. The formats include gap-fill, multiple-choice, drag and drop, amongst others. Progress can be monitored and regular feedback is also provided throughout. *English for Hotel Staff* can easily be integrated within a learning curriculum. It can be used as a classroom resource in the computer lab, for single computer projection or for self-access. The online version can be assigned for homework or self-study (Clarity Language Consultants, 2012).
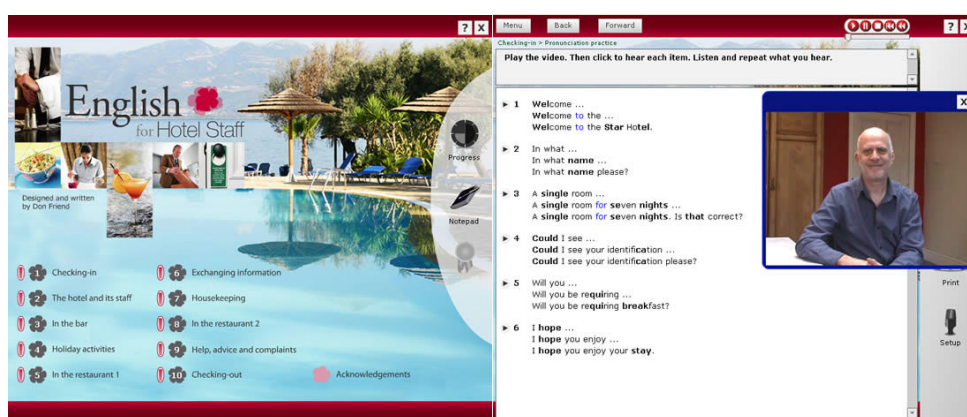

Figure 1. Screenshots

4. Results and discussions

To better understand the effectives of a Hotel English courseware, the following results shall be separated with the use of the research questions. As for the participants of the study, the courseware is assigned to 38 Senior students of the Department of Applied Foreign Languages in a university in Taiwan. A total of 26 female and 12 male students in a Tourism English conversation class participated in the semester long study. During the beginning of the semester, the objective of the study is provided and the students are assigned to accomplish five of the chapters in the Hotel English courseware. Students' grades (percentage) are noted together with the duration (in minutes) in accomplishing each chapter. At the end of the semester, a courseware satisfaction survey is given. The following section shall show the various results of the statistical analysis of the courseware satisfaction survey.

4.1 What are the benefits of a Hotel English courseware?

To understand the benefits of the Hotel English courseware to scales were used, which is derived from Lin (2011) regarding the ease of use of the courseware. For the perceived ease of use, the average score is 3.54 signifying moderately agreeing; while, the perceived usefulness of the courseware with a mean of 3.55. The highest scoring item in the scale is the "Using the e-learning service, I can increase my learning ability" with a mean of 3.66.

Table 1

Perceived ease of use factors (N=38)

Factors	n	Mean	SD	Min	Max
Perceived Ease of Use (PEU) 0.92 (Lin, 2011)	38	**3.54**	1.20	1	5
1. I feel the e-learning service is very easy to navigate	38	3.58	1.24	1	5
2. I feel it is easy to become skillful in navigating the e-learning service	38	3.55	1.37	1	5
3. Overall, I feel the e-learning service is easy to use	38	3.50	1.29	1	5
Perceived Usefulness (PU) 0.88 (Lin, 2011)	38	**3.55**	1.39	1	5
4. Using the e-learning service, I can improve my learning performance	38	3.42	1.45	1	5
5. Using the e-learning service, I can increase my learning ability	38	3.66	1.38	1	5
6. Using the e-learning service, I can improve my learning effectiveness	38	3.58	1.46	1	5

Results here suggest that the students perceived the courseware as moderately useful. Further inquiry with the students revealed that they acknowledged that the lessons in the courseware reflect real situations that they would encounter while traveling. Besides the perceived ease of use, the students average percentage scores and time completion. Table 2 shows the summary of the students' average percentage scores and time completion. Here we see that the average percentage score of the students in chapter 1 to 5 is almost 91%; signifying a quite high completion score. As expected the easiest lesson (chapter 1) scored the highest with around 94%, while also taking the least time to complete with an average time of around 29 minutes. For the total time took to finish the five chapters, the students reported that they took around 169 minutes to accomplished the tasks.

Table 2

Summary of students' average percentage scores and time completion (N=38)

Items		n	Mean	SD	Min	Max
Score_01		38	93.41	7.11	69.00	100.00
Score_02		38	88.54	9.24	65.00	100.00
Score_03		38	90.89	9.26	69.09	100.00
Score_04		38	90.15	10.80	60.00	100.00
Score_05		38	91.22	9.98	64.80	100.00
	Average score (percentage)	38	**90.84**	8.23	67.60	99.57
Time_01		38	29.13	17.52	2.00	85.00
Time_02		38	40.29	21.47	2.00	98.00
Time_03		38	32.89	21.43	2.00	71.00
Time_04		38	32.08	19.17	3.00	78.00
Time_05		38	34.82	18.29	2.00	72.00
	Total time (in minutes)	38	**169.21**	83.11	12.00	331.00

4.2 What are the challenges in implementing a Hotel English courseware?

Table 3

Students' attitude and perceived challenges in undertaking the courseware (N=38)

Factors	*n*	Mean	SD	Min	Max
Attitude (ATT) 0.88 (Lin, 2011)	38	**3.58**	1.25	1	5
7. I like the learning style enabled by the e-learning service	38	3.55	1.35	1	5
8. The e-learning service provides an attractive learning environment	38	3.61	1.22	1	5
Challenging - CILES 0.85 (Chuang & Tsai, 2005)	38	**3.59**	1.06	1	5
9. The courseware lessons makes me think	38	3.66	1.28	1	5
10. The courseware lessons are complex but clear	38	3.47	1.18	1	5
11. The courseware lessons are challenging to use	38	3.63	1.15	1	5
12. The courseware lessons help me to generate new ideas	38	3.58	1.00	1	5
13. The courseware lessons help me to generate new questions	38	3.63	1.15	1	5

With regards to the students' attitude and perceived challenges, the study uses the challenging factors used in a study of students' internet assisted learning (Chuang & Tsai, 2005); while, the attitude is gathered from the factor suggested by Lin (2011). The attitude factor gathered has a mean of 3.58 with the items "I like the learning style enabled by the e-learning service" with mean of 3.55 and "The e-learning service provides an attractive learning environment" with a mean of 3.61. These suggest that students are somewhat positive in terms with the courseware usage.

With regards to the challenging portion of the courseware, the overall mean of 3.59. Items such as "The courseware lessons makes me think" with a mean of 3.66, "The courseware lessons are challenging to use" with a mean of 3.63, and "The courseware lessons help me to generate new questions" with a mean of 3.63 are among the highest item in this factor. These results suggest that although the courseware is a bit challenging for the students, they prefer in a positive and encouraging way of learning.

4.3 What are the perceived implications of a Hotel English courseware?

With regards to the courseware use satisfaction, the students are asked to fill up a ten item questionnaire with an overall mean of 3.60, denoting moderately satisfied. The highest item is the item "The courseware is sufficiently helpful to improve listening skills for Hotel English" with a mean of 3.76. Table 4 also shows that the item "The courseware layout for a variety of situational context in Hotel English is relevant" with a mean of 3.68.

With regards to the perceived implications of the courseware, students are asked regarding their intention for continuance with a mean of 3.71. Items are "I will continue using the e-learning service for study purposes" with a mean of 3.68 and "I intend to continue using the e-learning service for life-long learning" with a mean of 3.74. With the relevance of the courseware with real-life situations, students perceived with an overall mean of 3.53. Items scoring the highest is "The courseware lessons shows how complex real-life environments are" with a mean of 3.63 and "The courseware lessons presents information that is relevant to me" with a mean of 3.63.

Table 4

User satisfaction scale (N=38)

Factors	*n*	Mean	SD	Min	Max
Questionnaire of Satisfaction (QS) 0.88 (Tsai, 2010)	38	**3.60**	1.16	1	5
14. The courseware improves your cognition for Hotel English.	38	3.58	1.27	1	5
15. The courseware is sufficiently helpful to improve terminology for Hotel English.	38	3.58	1.29	1	5
16. The courseware is sufficiently helpful to improve listening skills for Hotel English.	38	3.76	1.28	1	5
17. The courseware is sufficiently helpful to improve speaking skill for Hotel English.	38	3.50	1.08	1	5
18. The courseware is sufficiently helpful to improve reading skills for Hotel English.	38	3.55	1.37	1	5
19. The courseware is sufficiently helpful to improve writing skills for Hotel English.	38	3.63	1.20	1	5
20. The courseware is sufficiently helpful to improve translation skills for Hotel English.	38	3.55	1.22	1	5
21. The sentence patterns for a variety of situational context in Hotel English are applicable.	38	3.74	1.22	1	5
22. The English content of the courseware is relevant.	38	3.42	1.22	1	5
23. The courseware layout for a variety of situational context in Hotel English is relevant.	38	3.68	1.21	1	5

Table 5

Perceived implications of courseware (N=38)

Factors	*n*	Mean	SD	Min	Max
Continuance intention (CI) 0.91 (Lin, 2011)	38	**3.71**	1.00	1	5
24. I will continue using the e-learning service for study purposes	38	3.68	1.04	1	5
25. I intend to continue using the e-learning service for life-long learning	38	3.74	1.06	1	5
Relevance - CILES 0.91 (Chuang & Tsai, 2005)	38	**3.53**	1.20	1	5
26. The courseware lessons shows how complex real-life environments are	38	3.63	1.20	1	5
27. The courseware lessons presents data in meaningful ways	38	3.39	1.26	1	5
28. The courseware lessons presents information that is relevant to me	38	3.63	1.30	1	5
29. The courseware lessons presents realistic tasks	38	3.42	1.29	1	5
30. The courseware lessons have a wide range of information	38	3.55	1.25	1	5

5. Significant of the study

Recently, much concern regarding the students English language proficiency is observed. More so, the need

of developing fresh talents for the upcoming needs of the tourism industry has placed great emphasis on ESP Tourism English courses. In essence, this shall study shall be able to provide various important implications not only to the academic community, but also to the hotel industry.

> ➢ First, as students' learn better English, contribution to future society will not only be limited to the increased human resources, but also the strengthening of the overall individual competitiveness of future graduates. Hence, produces a more productive citizen for the benefit of the future society.

> ➢ Second, the concept of using CALL in learning Hotel English is a new approach. More, importantly, the use of activities that are non-threatening and familiar to the students will be able to increase their learning motivation.

> ➢ Third, this study shall be able to contribute to the "Customized Industry Education Program", for results shall help reinforce programs related to the Tourism industry.

> ➢ Lastly, this study shall open up new ideas and concept of combining information technology and language learning through an experiential pedagogical approach.

6. References:

Atan, S. F. (1997). The effect of textual/visual support on students' listening performance. Unpublished Masteral Thesis. Universiti Teknologi Mara.

Beatty, K. (2003). *Teaching and researching computer-assisted language learning*. New York: Longman.

CENS. (2011). Taiwan's trade surplus growth with China drops in first half. Retrieved September 10, 2011, from http://cens.com/cens/html/en/news/news_inner_37616.html

Chapelle, C. A. (2001). *Computer applications in second language acquisition*. New York: Cambridge. http://dx.doi.org/10.1017/CBO9781139524681

Chuang, S. C., & Tsai, C. C. (2005). Preferences toward the constructivist internet-based learning environments among high school students in Taiwan. *Computers in Human Behavior, 21*, 255-272. http://dx.doi.org/10.1016/j.chb.2004.02.015

Clarity Language Consultants. (2012). Retrieved December 1, 2012, from http://www.clarityenglish.com/program/englishforhotelstaff.php

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. New York: Routledge.

Dunn, J. (2012). How technology is changing education as we know it. Retrieved November 30, 2012, from http://edudemic.com/2012/01/tech-changing/

Flowerdew, L. (1995). Designing CALL courseware for an ESP situation: A report on a case study. *English for Specific Purposes, 14*(1), 19-35. http://dx.doi.org/10.1016/0889-4906(94)00027-B

Jiménez, P. M., & Casado, E. (2004). Electros: Development of an educational software for simulations in electrostatic. *Computer Applications in Engineering Education, 12*(1), 65-73. http://dx.doi.org/10.1002/cae.10050

Kozma, R. B. (1991). Learning with media. *Review of Educational Research, 61*(2), 179-211. http://dx.doi.org/10.3102/00346543061002179

Levy, M. (1997). *CALL: Context and conceptualisation*. Oxford: Oxford University Press.

Lin, K. M. (2011). e-Learning continuance intention: Moderating effects of user e-learning experience. *Computers and Education, 56*(2), 515-526. http://dx.doi.org/10.1016/j.compedu.2010.09.017

McMillan, J. H., & Schumacher, S. (2010). *Research in education: Evidence-based inquiry* (7th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey Bass.

Rusanganwa, J. (2012). Multimedia as a means to enhance teaching technical vocabulary to physics undergraduates in Rwanda. *32*(1). Advanced online publication. Retrieved November 30, 2012. http://dx.doi.org/10.1016/j.esp.2012.07.002

Salaberry, M. R. (2001). The use of technology for second language learning and teaching: A retrospective. *The Modern Language Journal, 85*(1), 39-56. http://dx.doi.org/10.1111/0026-7902.00096

Taiwan External Trade Development Council. (2010). The status of Taiwan's tourism and recreation industry. Retrieved September 20, 2011, from

http://sourcing.taiwantrade.com.tw/db/IndustryOverview/12.Tourism_recreation%20industry.pdf

Tsai, S. C. (2009). Courseware development for semiconductor technology and its application into instruction. *Computers & Education, 52*(4), 834-847. http://dx.doi.org/10.1016/j.compedu.2008.12.010

Tsai, S. C. (2010). Developing and integrating courseware for oral presentations into ESP learning contexts. *Computers & Education, 55*(3), 1245-1258. http://dx.doi.org/10.1016/j.compedu.2010.05.021

Tsai, S. C., & Kung, T. W. (2005). *Development of e-learning content for English for specific purposes on tourism and travel*. Paper presented at the World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2005.

Warschauer, M., & Healey, D. (1998). Computers and language learning: an overview. *Language Teaching, 31*(02), 57-71. http://dx.doi.org/10.1017/S0261444800012970

Wyatt, D. H. (1983). Computer-assisted language instruction: Present state and future prospects. *System, 11*(1), 3-11. http://dx.doi.org/10.1016/0346-251X(83)90003-9

Yin, R. K. (1984). *Case study research: Design and methods*. Newbury Park, CA: Sage.