Study on the Effectiveness of Wiki Application on English Learning Attitude and Writing Competence of Business Administration Talents in Taiwan

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ABSTRACT

This study aims to probe into effectiveness and influence of Wiki application on English learning attitude and writing competence of business administration talents in Taiwan. The study was based on research method of quasi-experiment, and the research period was one year. The subjects were 59 seniors in one university of technology in Taiwan. Research findings are shown as follows: (1) Wiki can enhance English writing learning attitude; (2) Wiki is effective to increase overall English writing competence; (3) Wiki can enhance wording /format, grammar and organization/content of English writing; (4) Wiki can effectively increase English writing organization/content competence of high and low learning achievement learners; (5) Wiki can improve wording /format competence of high and low learning achievement learners; enhancement of high learning achievement learners is higher than low learning achievement learners; (6) Wiki can effectively increase high and low learning achievement learners' grammar competence, and the progress rate of low learning achievement learners is the most significant.

Keywords: Web2.0, Wiki, English writing, business administration talents in Taiwan

1. Introduction

In era of globalization, English is the necessary requirement when recruiting business professionals. Many firms suggest that English competence is not an option, when selecting talents, but a must-be condition. In a competitive workplace, English writing competence becomes one of the most important criteria to select talents. In English instruction, technology is widely applied to language instruction and learning. Result of empirical studies shows that technology can increase learners' learning attitude, such as increasing learning motive, reducing learning anxiety, and encouraging learners to learn autonomously and cooperatively (Pellettieri, 2000). Web 2.0 era is the new internet era which transforms individual technology technique to individual information share and participation. It emphasizes interaction and

information exchange. Wiki is the typical technology of Web2.0 share and participation framework. Wiki can help provide an efficient, flexible, user-friendly and cost-effective interface for collaboration, knowledge creation and student interaction (Schwartz, Clark, Cossarin, & Rudolph, 2004). Many studies have started to appear on the application of wikis. The studies examine the application of wikis and explore their usage potential, the effects they have on student learning, and their effectiveness when used with appropriate instructional practices (Woo,2011). Wikis have been used in higher education in a variety of ways (Parker & Chao, 2007), for example, online collaborative writing (Baetens, Truyen, & Roegiers, 2007). This study examined the effect of Wiki, which emphasizes open and collaborative creation, allows adding and deleting the articles, on English writing. Moreover, it probed into the effectiveness of Wiki on scaffolding learning of low learning achievement learners' English writing. This study attempted to identify the influence of Wiki technology on English writing learning attitude of business administration talents in Taiwan, and effectiveness of Wiki application on English writing competence. It also analyzed characteristics of Wiki that are applicable to business administration talents with different writing levels. It is expected that new technology application will enhance English writing teaching capacity, increase students' English writing practices, and enhance students' English learning attitude and self-learning ability.

2. Method

2.1 Research subjects

The subjects were selected based on purposive sampling, and they were 59 students from the Department of Applied Foreign Languages of one university of technology. Among those, 27 were high-achievement students and 32 were low-achievement students. The department treats "business and leisure foreign language" as one of the main developments, and it emphasizes the combination between foreign language competence and business.

2.2 Research implementation

This study adopted quasi-experiment, and the research period was one year, conducted over e two semesters in two classes. Each semester was 12 weeks. Before the study, a pre-learning competence test was conducted, a concluding evaluation was conducted after the study. The test was paper-based written test. Before and after the study, closed questionnaire survey was conducted as pretest and posttest on 59 students. The content of the English writing course included introduction of products, local culture and English resume writing. The objective was to instruct descriptions and narrations of English writing. Wiki application in this study is as follows: the teacher designs 12-week course content on Wiki, and uses the Wiki writing page to invite the students for Wiki writing under the authority of administrator. English writing of different levels can be accomplished on Wiki platform. By Wiki platform, the teachers and students indicate errors and notes which can be reviewed by teachers and colleagues. Thus, learners can learn from others' errors.

2.3 Research tool

The research tool was WikiSpace(http://www.wikispaces.com/). Learning functions of WikiSpace are below: 1) learners can have personal accounts; 2) "EasyEdit" allows users to easily edit, modify, add and delete Wiki content; 3) online tracking of adding and deleting, and it can record and review new and old content; 4)

user interface is friendly.

Figure 1 WikiSpace(http://www.wikispaces.com/)

2.4 Competence test before and after the study

In order to assess the learning results, this study adopted multi-evaluation strategy. Two writing tests from intermediate level of GEPT were used for pretest and posttest, and each writing test was 30 minutes. Scoring of writing competence test was based on measurement of Jacobs et al. (1981): five indicators (content, structure, word choice, language use, punctuation, capitalization and lowercase letters) and four levels. According to the researcher's personal experiential rules, teaching strategy and research purposes, organization content, grammar and wording format were adopted. Content organization is 40 points, grammar is 30 points, and wording format is 30 points. There are three scorers for each writing piece in order to maintain the objectivity.

2.5 English writing attitude and technology acceptance scale

The questionnaire included five dimensions: English writing motive, English writing confidence, and English writing self-efficacy, under the aspect of English writing attitude, as well as perceived ease of use and perceived usefulness, under the aspect of technology acceptance. The measurement was based on Likert 5-point scale, from "strongly disagree" (5 points) to "strongly agree" (1 point). The description of the questionnaire items was positive items, and there were a total of 51 items. The design of the questionnaire referred to the definitions and levels of the above five dimensions indicated by experts and scholars.

3. Results

3.1 Influence of Wiki application on English writing technology acceptance

The influence of Wiki application on English writing technology acceptance was measured by "perceived ease of use" and "perceived usefulness". As shown in Table 1, for high and low-achievement learners, F values of ANOVA test regarding three dependent variables are .269 (p=.606>.05), .322 (p=.573>.05), .176 (p=.677>.05). It indicates that learners with different learning achievements do not reveal difference in "technology acceptance", "perceived ease of use" and "perceived usefulness".

Table 1.ANOVA test of high and low-achievement learners' technology acceptance

Variance sources	Names of dimensions	SS	MS	F	P
High and low-achievement learners	Technology acceptance	3.362	3.362	.269	.606
	Perceived ease of use	1.025	1.025	.322	.573

Perceived usefulness	.674	.674	.176	.677

3.21 Study on Wiki application on **English writing efficacy**

English writing competence tests were conducted before and after the study. The results showed that the mean of pretest is 31.67, and standard deviation is 19.40; the mean of posttest is 65.00 and standard deviation is 17.40. Test for homogeneity of regression coefficient showed that F value is insignificant (F=3.378, p=.71>.05), thus meeting the homogeneity assumption of regression coefficient for covariance analysis. The result demonstrates that Wiki significantly influences English writing learning achievement (F=25.793, p=.000>.05).

3.22 Study on Wiki application on **English writing** learning attitude

The influence of Wiki on English writing efficacy was measured by English writing efficacy, English writing learning confidence and English writing learning motive. According to Table 2, the average difference of English writing attitude before and after the study is -4.136; t of difference test =-2.667**. Average difference of English writing efficacy is -4.136 and t of difference test =-4.178**. The average difference of English writing confidence is 2.424, t of difference test =2.621**. The average difference of English writing motive is -2.424 and t of difference test =-2.730**. It means that before and after study, there is a significant correlation among English writing attitude, efficacy and motive. English writing attitude, efficacy and motive after the study are significantly higher than those before study. However, although there is a significant correlation between English writing confidence before and after the study, English writing confidence after the study is significantly lower than that before the study. Interviews with students revealed that the main reasons of students' low English writing confidence are below: by instruction and Wiki colleague learning, learners' self-demand for wording, grammar, article structure and content increases. However, it takes time and efforts to increase English writing competence. Therefore, students' English writing knowledge is enhanced; however, they lack of confidence in properly applying the said knowledge to their English writing. The outcome does not negatively influence students' English writing effectiveness. In fact, it results in positive influence on English writing since learners realize their insufficiency.

Table 2 .Paired sample t test of English writing learning attitude before and after the study

Before and after the study	Paired variable difference				
			95% Confidence interval of difference		
	Mean	Standard deviation	Lower limit	Upper limit	t
English learning attitude	-4.136	11.913	-7.240	-1.0311	-2.667**
English writing efficacy	-4.136	7.603	-6.117	-2.154	-4.178**
English writing confidence	2.424	7.103	.5726	4.275	2.621**
English writing motive	-2.424	6.818	-4.201	-.6469	-2.730**

3.12 Analysis on English writing error rate in pretest and posttest

High learning achievement learners: wording /format error rates are 6.86% and 4.45%, respectively, and progress rate is 55.3%, indicating that learners make positive progress in wording /format. Grammar error rates are 10.6% and 6.3%, respectively,

and progress rate is 38.8%, indicating that learners make positive progress in wording /format. Organization/content error rates are 9.8% and 0.9%, respectively, and progress rate is 90.8%, indicating that learners make positive progress in wording /format. Low learning achievement learners: wording /format error rates are 16.2% and 12.0%, respectively, and progress rate is 25.9%, indicating that learners make positive progress in wording/format. Grammar error rates are 15.4% and 10.0%, respectively, and progress rate is 35.1%, indicating that learners make positive progress in wording /format. Organization/content error rates are 29.3% and 11.0%, respectively, and progress rate is 62.4%, indicating that learners make positive progress in wording /format. Research findings show that Wiki enhances wording /format, grammar and organization/content of English writing. Regarding characteristics of learners with different writing levels, Wiki can effectively enhance competences of learners with different levels. The order of progress for high-level learners is below: organization/content, wording /format and grammar. Order of progress for low-level learners is organization/content, grammar and wording /format.

4. Conclusions and Suggestions

Based on the results, the conclusions are as follows: (1) Wiki can enhance English writing learning attitude; (2) Wiki is effective for overall English writing competence; (3) Wiki can increase wording /format, grammar and organization/content competence of English writing; (4) Wiki can effectively enhance English writing organization/content competence of low learning achievement learners; (5) Wiki is effective in increasing wording /format competence of high and low learning achievement learners; the progress of high learning achievement learners is higher than low learning achievement learners; (6) Wiki can effectively enhance grammar competence of high and low learning achievement learners; the progress rate of low-level learners is the most significant.

Technology application to English writing can enhance learners' learning attitude, such as learning motive and learning efficacy. The research finding is consistent with Pellettieri (2000) who suggested that technology can increase learners' learning attitude, and encourage learners to learn autonomously and cooperatively. Although technology-based learning is effective, technology use timing and subjects rely on the instructors' proper evaluation and planning to result in the optimized effect of technology. Technology should not be applied only for the sake of technology; instructors should make efforts on learners' effective and meaningful learning.

5.References

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