Teaching practice of Internet information technology in College English Course

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Abstract. The rapid development of “Internet+ Education” enables College English teachers to use the vast network platform with modern educational technology in teaching. The article put forward the practical mode of Micro-lecture in College English Teaching in this context to present a feasible approach to College English course.

1. Introduction
With the fast growth of information age, modern society has entered a new era - "micro era". Higher education should also keep pace with the times with continuous innovation and highlight the characteristics of the micro era.

In the era of micro propagation, College English teachers should use information technology to enhance English teaching combined with professional characteristics of colleges. And micro-lecture, as a micro media, supplements and enriches the traditional teaching way effectively for its flexible content selection and presentation. What’s more, it can meet the students' personalized learning needs, therefore it is widely used in College English teaching.

2. The summary of micro-lecture
Micro-lecture was proposed in 2008 by a senior teaching designer called David Penrose in San Juan College of New Mexico U.S. He pointed out that the core idea is to require teachers to combine teaching content with teaching goal closely and to produce a more focused learning experience. In China, the lecture was first proposed by Hu Tiesheng of Network Center of Foshan Education Bureau. He believes that micro-lecture is based on the new curriculum standards and the teaching practice is presented in the form of teaching video. Micro-lecture has various types with prominent theme, strong interaction, the real situation, and great convenience.

More and more educational researchers have recently studied micro-lecture. Micro-lectures of the English subject are common in primary school, middle school, occupation colleges, public universities and private universities. More and more College English Teaching Reform Projects are based on micro-lecture. Such as Guo Peng (2014) studied the teaching mode of micro-lecture in the current educational background of the information environment of College English classroom[1]; Wang Yang (2014) put forward methods to improve the English lecturing in colleges through the study of the combination of the lecturing practice of English Curriculum with micro-lecture [2]; Luo Rong (2015) proposed the designing principles and application strategies of micro-lecture in College English class according to the present situation of English lecturing in colleges[3]; Yu Jinyan (2016) summarized and reflected on the micro teaching model under the support of the College English classroom reform practice [4]; Wang Xiaofang (2017) pointed out teachers need to pour more energy to enhance teaching...
and achieve diverse mode of micro-lecture\textsuperscript{[5]}. Thus, micro-lecture, as a new teaching mode, has a broad application prospect in Teaching.

3. Teaching practice mode of micro-lecture in nursing major
Taking the nursing major of Changchun University of TCM as an example, the study expounds the practice mode of micro-lecture in College English Teaching.

3.1 The process of teaching practice

3.1.1 The practice objects. Students of grade 2016 in class 1 and class 2 of nursing major in Changchun University of Traditional Chinese Medicine were selected. The teaching practice is in the second semester of 2016-2017 academic year. Two classes have the same teacher and teaching contents, but teaching methods are different.

3.1.2 The practice methods. The control group (nursing class 2): The teacher used the traditional teaching content and methods; The experimental group (nursing class 1): The teacher used micro-lecture in College English teaching.

3.1.3 The application mode of micro-lecture in the experimental class. The construction of the application model of micro-lecture is based on four modules: micro-lecture, micro-assignment, micro-interaction and micro-test. The specific mode is shown in Figure 1. Micro-lecture runs through the three main procedures of College English Teaching: preview before class, classroom learning and review after class.

![Figure 1. The application mode of micro-lecture in the experimental class.](image)

Micro-lectures: The course of College English teaching lasted for 18 weeks. The subject of nursing English was designed from week 1 to week 17. The test week was week 18. And the students' Comprehensive English proficiency was tested.

Pre-class: In the final part of the micro-lecture, teachers assign learning tasks (micro-assignments).
In class: At the beginning of the semester, the teacher divided 58 students in class 1 into 10 study groups. The teacher checked the students' learning tasks of micro-lecture 10 minutes earlier before class began. Students discussed questions assigned in micro-lecture. Representative was chosen in each group and reported what they did under the teacher’s guidance (micro-interaction).
After-class: Due to the limited time in the class, the study group members who do not speak should accept micro-test. The forms of micro-test are flexible, such as recording related videos and completing listening, reading, cloze, composition and other questions.
3.2 The evaluation of teaching effect of the application mode

3.2.1 Evaluation content. Data in Table 1 appraise the students’ study outcomes in terms of the scores of mid-term, final term and integrated exams. Data in Table 2 appraise the students’ study outcomes in terms of the scores of integrated exams in week 1 and week 18. Students’ improvement in English was evaluated by exams at the beginning and the end of the semester to prove the teaching outcome of micro-lecture application model in English teaching of nursing major.

3.2.2 Evaluation method. Descriptive statistics, measurement data are expressed by \((\bar{X} \pm s)\). T test of "two independent samples" is used. P<0.05 is statistically significant.

3.2.3 Evaluation process.
\[X_1 \sim N(\mu_1, \sigma_1^2)\]
\[X_2 \sim N(\mu_2, \sigma_2^2)\]
\[X_1 - X_2 \sim N(\mu_1 - \mu_2, \sigma_{12}^2)\]

Establishing the original hypothesis and alternative construction:
\[H_0 : \mu_1 - \mu_2 = 0\]
\[H_1 : \mu_1 - \mu_2 \neq 0\]

Selecting test statistics:
\[t = \frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{\sqrt{\sigma_{12}^2}}\]

When the variance of the two population is unknown and equal,
\[\sigma_{12}^2 = \frac{S_p^2}{n_1} + \frac{S_p^2}{n_2}\]
\[S_p^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}\]
\[t = \frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{\sqrt{\sigma_{12}^2}} \sim t(n_1 + n_2 - 2)\]

When the variance of the two population is unknown and unequal,
\[\sigma_{12}^2 = \frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}\]
\[t = \frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{\sqrt{\sigma_{12}^2}} \sim t(df)\]
\[df = \frac{(\frac{S_1^2}{n_1})^2 + (\frac{S_2^2}{n_2})^2}{\frac{(S_1^2)^2}{n_1} + \frac{(S_2^2)^2}{n_2}}\]

SPSS19.0 software was applied to dissect the statistics. The test statistic and its statistical probability P value were calculated, and the test results were evaluated according to the P value.

3.2.4 Evaluation result. The average score of the experimental group was higher than that of the control group, and the difference was statistically significant (P<0.01), and the results showed in Table 1.
Table 1. The scores of the two groups were compared.

| Group         | Scores of Mid-term exam | Scores of Final-term exam | Scores of integrated exam |
|---------------|-------------------------|---------------------------|---------------------------|
| Experimental group | 92.40 ± 3.14            | 81.98 ± 9.43              | 85.22 ± 6.52              |
| Control group  | 87.22 ± 3.67            | 72.00 ± 12.35             | 76.61 ± 9.15              |
| P             | < 0.01                  | < 0.01                    | < 0.01                    |

The test scores of the experimental group and the control group in week 1 were similar and there is no significant difference between the mean (P>0.05) indicating that the difference of students in the first week is not obvious; There is obvious difference in week 18. The scores of the experimental group was significantly higher than that of the control group, and the difference is statistical significance (P<0.01). The results are shown in table 2.

Table 2. The scores of the two groups were compared in week 1 and 18.

| Group         | Scores in week 1 | Scores in week 18 |
|---------------|------------------|-------------------|
| Experimental group | 62.17 ± 7.32     | 72.86 ± 7.15      |
| Control group  | 61.66 ± 7.63     | 63.97 ± 6.69      |
| P             | >0.05            | < 0.01            |

4. Implication

The results show that the academic achievement in the experimental group was significantly higher than that of the control group. Students of the experimental group can participate in teaching activities more actively. Thus, to apply micro-lecture to English teaching plays a very important significance.

4.1 Micro-lecture improves students’ efficiency of learning

The conventional college English lecturing style is simple. It is difficult for teachers to arose students' interest in English study. Micro-lecture has the advantages of short time and small scale and so on. With the help of up-to-date information tools, it enables learners to fully take part in the teaching performance of each teaching process and makes learning English a pleasure to develop their learning passion and productivity.

4.2 Micro-lecture promotes students’ personalized learning

Micro-lecture enables students to watch micro-lectures repeatedly before class and after class. It can also extend time and space of the classroom, which is convenient to satisfy the different needs of students to learn English.

4.3 Micro-lecture enhances the students’ practical ability in English

Micro-lecture not only contains English vocabulary, phrases, conversation, etc., but also contains the knowledge and ideas of nursing profession, which is really vital to better the practical ability of students in English.

5. Conclusion

Along with the healthy and efficient growth of medical training in recent time, there is a growing demand for nursing professionals at home and abroad. As a fundamental component of advanced TCM schooling, College English teaching should get full attention. We need to reform traditional English teaching mode with micro-lecture. Only by doing so can we innovate the teaching mode of College English and develop the calibre of College English lecture.
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