Application of Audition CS6 Adobe in College English Multimedia Teaching

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Abstract

Digital audio is one of the important elements of teaching media. This paper discusses the important role of digital audio in teaching, summarizes the types of digital audio, introduces the basic knowledge of Adobe Audition software, and summarizes the planning steps of College Students' English courses teaching materials and the steps of using Adobe Audition software to develop college English courses audio materials. In order to evaluate the influence of digital audio and Adobe Audition software on College Students' English listening and speaking ability, the author designs a related experiment. In this experiment, It can be drawn a conclusion that, the digital audio and Adobe Audition software can significantly improve the students' English listening ability, however, they have little effect on the students' oral English ability.

Keywords: ADOBE AUDITION, DIGITAL AUDIO, COLLEGE ENGLISH, TEACHING, MULTI-MEDIA

1. Introduction

With rapid development of information technology, digital audio technology has been increasingly mature [1]. Digitization of all kinds of media information is an inevitable trend of teaching media. Digital audio is one of important constituent parts of multimedia teaching. According to the sound contents displayed by voice frequency, college students English teaching voice frequency materials can be classified into three types [2]: (1) voice. It refers to human voice which is usually used to present teaching information, such as English word pronunciation and sentence reading; (2) music. It generally refers to background sound in teaching materials, such as background music used to render the situation in reading process; (3) effect sound. It mainly refers to natural sound in teaching resources, such as phone ringing, tap-tap and thunderstorm sound.

Digital audio can enrich learners' auditory sense and play a role in the following aspects [3]: (1) motivate learners' learning interest. Digital audio can simulate various situations and bring different sound stimuli to learners so as to motivate their learning enthusiasm; (2) arouse learners' attention. Learners will suspend or divert attention under long-time learning pressure. Digital audio can improve students' attention, and students can learn consciously through voice frequency; (3) adjust tense emotion. Learners highly centralize their mind in study, so they may easily generate the feeling of fatigue. Adding music in proper time can effectively relieve the feeling of fatigue, cultivate their taste and contribute to learners to accept new knowledge.

The trend of digital audio application in teaching field cannot be halted. Sound as one of key elements for multimedia teaching influences learners' emotion and interest as well as comprehension and acceptance

degree for the knowledge. Jiang Yan discussed the application of audio instructional software to boost students' operation and creation ability [4]. Fan [5] probed into the method to make audio teaching resources with Adobe Audition software. Xiong [6] sorted common functions and operation process of Adobe Audition software, and expounded the methods to make multimedia teaching courseware which meets requirements of aural comprehension teaching in foreign language teaching through collecting, editing and handling voice materials. AL-Hammadi [7] verified through teaching experiments that, during teaching English aural comprehension, the application of multimedia software involving aural comprehension skills could boost students' English aural comprehension skills.

The above researches discuss application methods of digital audio and Adobe Audition software in teaching domain from the perspective of application, and it can generate positive effects on teaching acquiescently. However in fact, it is still necessary to scientifically analyze and estimate whether digital audio and Adobe Audition software can improve teaching effect. The author applies digital audio and Adobe Audition software in college English course through designing relevant experiments in order to evaluate and analyze their influence on English aural comprehension and speaking competence of college students.

The author introduces basic knowledge of Adobe Audition software in this paper, expounds the functions of digital audio in teaching domain, proposes the steps to design college English audio teaching materials and the steps to develop college English audio teaching materials by use of Adobe Audition software, evaluates and analyzes the effects of digital audio and Adobe Audition software on college students speaking and aural comprehension competence.

2. Adobe Audition Software

2.1. Development of Adobe Audition software

In September 2012, Adobe Company released Adobe Audition v5.0 version of Audition. Because this version is a part of Adobe Creative Suite software package, this version is also called Adobe Audition CS6 [8]. In this paper, Adobe Audition CS6 version is used to handle relevant audio files.

2.2. Functions of Adobe Audition software

Adobe Audition is a professional audio editing and mixing environment. Adobe Audition CS6 with strong audio editing function, supports multi-track editing stretching, voice alignment and control surface with parameter automation as well as such functions as tone t control, file management, format extension and batch processing [9].

2.3. Digital audio principle of Adobe Audition

During recording audio in Adobe Audition, sound card starts recording n process and specifies the sampling rate and bit depth. The sound card receives analog audio and carries out digital sampling according to the specified sampling rate through "line input" or "microphone" port. Adobe Audition stores each sampling according to the sequence until the recording stops [10].

The opposite process proceeds during playing the file in Adobe Audition. Adobe Audition sends a series of digital sampling to the sound card, and the sound card rebuilds original waveform sends it to the loudspeaker through "line output" port in the way of analog signal.

3. Design of college English audio teaching materials

Before Adobe Audition software is used to formally develop audio teaching materials, it is necessary to plan the teaching contents first, including specifying teaching problems, analyzing the materials needed and existing materials and making material script etc [11].

3.1. Specify objective of teaching materials

Confirm the teaching problems needed to be solved by audio teaching materials to be developed, the teaching objective and the direction.

3.2. Analyze the materials needed and existing materials

Confirm the materials needed according to audio teaching materials to be developed and in combination of students; features and actual teaching situation. Meanwhile, analyze existing audio, text and other materials and confirm which materials need to be made gain and which materials need to transform the format.

3.3. Make material script

If teaching materials to be developed involve many materials and especially different materials need to be made by different types of work, it is better to form formal material script and standardize follow-up manufacturing process.

4. Development of college English audio teaching materials by Adobe Audition software

After teaching material planning is finished, Adobe Audition software can be used to develop audio teaching materials, including making the prototype, recording audio material, transforming audio material format, integrating audio material and releasing audio material et.

4.1. Make the prototype

If teachers are not familiar with audio making technology, they may first choose a small part of

teaching content to experience complete audio teaching manufacturing process. On the one hand, they can know well manufacturing method; on the other hand, feasibility of technical proposal can be verified. Meanwhile, technical proposal can be adjusted according to the verification result.

4.2. Record audio material

This step decides sound quality of final teaching materials. It is better to choose high-quality recording equipment.

Adobe Audition software supports two recording modes: single track recording and multitrack remix. When multitrack remix mode is selected, click "multitrack remix" button to enter the page of new mul-

titrack remix; after filling in the information about multitrack remix, the recording starts, as shown in Figure 1.

4.3. Transform audio material format

During making teaching materials, existing material resources should be well utilized, such as existing CD, VCD or video file. Adobe Audition software can be used to extract the sound in these materials or transform the format.

For example, if existing long audio needs to be transformed into several sections, blade tool of Adobe Audition software can be utilized to segment the audio through clicking left mouse button at a proper position of audio material, as shown in Figure 2.
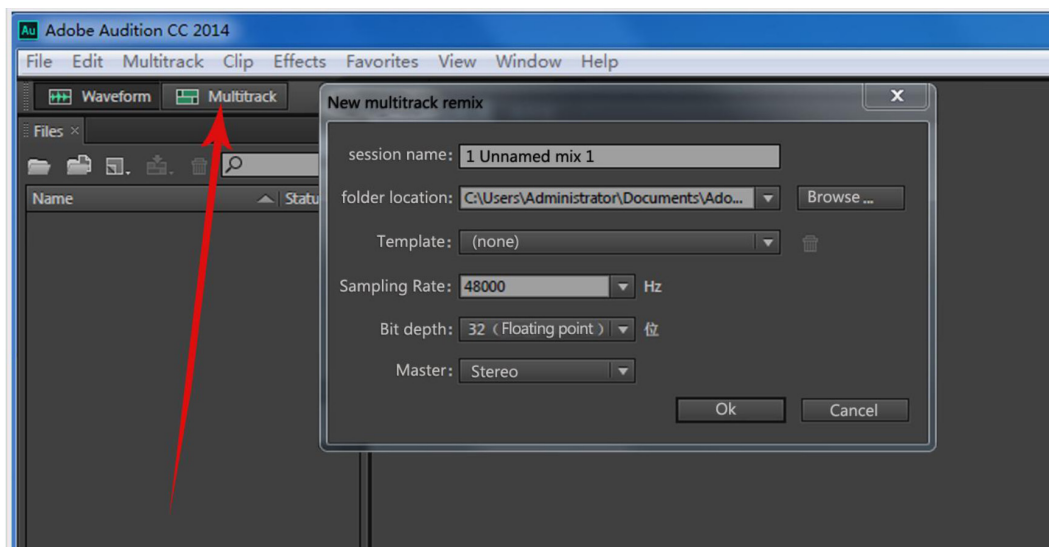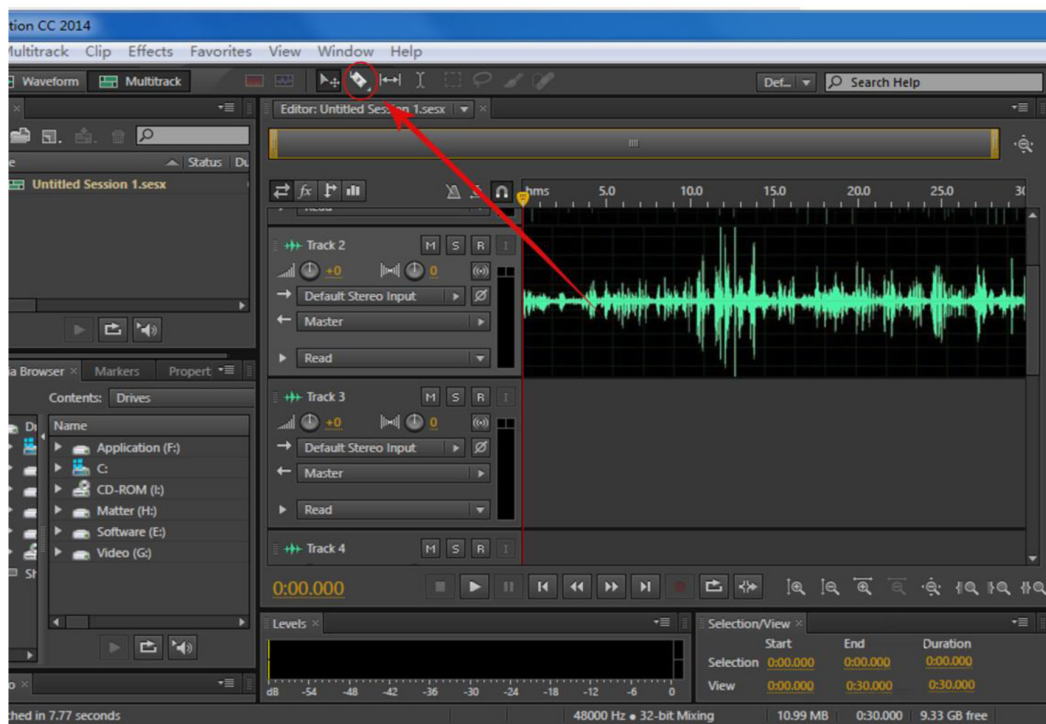

Figure 1. Multitrack remix recording mode

Figure 2. Audio segmentation by blade tool

4.4. Integrate material

Usually, an audio teaching material needs to integrate multiple materials, such as adding instructions before explaining the formal content, providing background music and adding segmentation prompt in continuous recording.

4.5. Release audio material

According to application environment and release mode of audio teaching materials, integrated audio is transformed into the most suitable format. Usually, MP3, WMA and other formats with large compression ratio which are suitable for storage and network communication re adopted.

5. Effect of college English audio teaching material

5.1. Experimental design

To evaluate the influence of digital audio and Adobe Audition software on college students English aural comprehension and speaking competence, the author chose students from 8 classes in the same grade as the objects of study and chose two classes as the experimental group (62 students). Digital audio teaching materials developed by Adobe Audition software were adopted for the experimental group. The students from another 6 classes served as the control group (184 students) and taught by natural voice mode. The research duration lasted two academic years. The whole experiment includes pre-test and post-test of aural comprehension competence as well as pre-test and post-test of oral English competence.

In terms of pre-test of aural comprehension competence, 30 choice questions of aural comprehension part in TOEFL were selected for both experimental group and control group. Every question has one score, with a total of 30 scores. These questions were used to test whether average aural comprehension competence of students in experimental group and control group were different significantly before the experiment started. After two academic years, 30 choice questions of aural comprehension part in another set of TOEFL were used for post-test of aural comprehension competence, with the full score of 30. Aural comprehension competence of students in experimental group and control group were evaluated after the experiment.

For pre-test of oral English competence, 6 questions of oral English part in TOEFL were selected. The every question has 5 scores, with a total of 30 scores. These questions were used to test whether average oral English competence of students in experimental group and control group were different significantly before the experiment started. After two academic years, 6 questions of oral English part in another set of TOEFL were used for post-test of oral English competence, with the full score of 30. Oral English competence of students in experimental group and control group were evaluated after the experiment.

Statistical method: the data are analyzed by SPSS16.0 statistical software. The scores of two groups are expressed with mean ± standard deviation. Independent sample T test is adopted for inter-group comparison, and paired T test is adopted for intragroup comparison. $P < 0.05$ means the difference has statistical significance.

5.2. Experimental results

(1) Aural comprehension test result

According to experimental design, aural comprehension pre-test score and post-test score of students in experimental group and control group are shown in Table 1. It can be seen from aural comprehension test result that, aural comprehension pre-test scores of experimental group and control group are basically same. This indicates average aural comprehension level of students in two groups has no significant difference before the experiment ($t=0.655$, $P=0.513$). After the experiment for two academic years, aural comprehension post-test score of students in two groups generate great difference. Compared with pre-test score, the difference has statistical significance ($P < 0.05$). Regardless of pre-test score ($t=4.353$, $P < 0.001$) and the changes in pre-test score and post-test score ($t=4.652$, $P < 0.001$), aural comprehension post-test score of students in experimental group is apparently higher than that of students in control group. This indicates digital audio and Adobe Audition software have positive and significant influence on college studentss' English aural comprehension level.

(2) Oral English test result

Oral English pre-test score and post-test score of students in experimental group and control group are shown in Table 2. It can be seen from Table 2 that oral English pre-test scores of experimental group and control group differ little. This indicates average oral English level of students in two groups has no significant difference before the experiment ($t=0.327$, $P=0.744$). After the experiment for two academic years, oral English post-test scores of students in two groups improve to some extent. Compared with pre-test score, the difference has statistical significance ($P < 0.05$). Besides, regardless of post-test score ($t=0.227$, $P=0.821$) and the difference with pre-test score ($t=0.875$, $P=0.328$), the rising range of two groups are almost same. This shows digital audio and Adobe Audition software have very limited influence on college studentss' oral English level.

Table 1. Table of aural comprehension scores

Group	Aural comprehension pre-test score	Aural comprehension post-test score	Difference value
Experimental group	20.28±3.23	24.24±3.33*	3.96±2.30
Control group	19.96±3.36	22.14±3.27*	2.18±1.70
Statistical result	t=0.655, P=0.513	t=4.353, P<0.001	t=4.652, P<0.001

Note: * means P<0.05 compared with intra-group pre-test score

Table 2. Table of oral English scores

Group	Oral English pre-test score	Oral English post-test score	Difference value
Experimental group	18.29±3.14	21.29±3.67*	3.00±2.40
Control group	18.46±3.67	21.18±3.17*	2.72±2.10
Statistical result	t=0.327, P=0.744	t=0.227, P=0.821	t=0.875, P=0.328

Note: * means P<0.05 compared with intra-group pre-test score

According to oral English scores, oral English pre-test scores of experimental group and control group differ little. This can explain average oral English level of students in two groups has no significant difference before the experiment. After the experiment for two academic years, oral English post-test scores of students in two groups improve to some extent, and the rising range is almost same. This shows digital audio and Adobe Audition software have very limited influence on college studentss' oral English level.

Conclusions

Information processing process of cognitive linguistics and Swain's "output hypothesis" theory hold that, human attention is restricted; when learners conduct aural comprehension, only a small part of their attention is used to receive language, and most attention is used for semantic processing; otherwise, the voice received cannot be correctly understood. When language is outputted, speakers not only need to concentrate on semantic s, but also focus on grammatical structure of the outputted language. So, relative to listening, speaking is a very complicated psychological linguistics process.

Digital audio and Adobe Audition software provide learners with rich comprehensible speech input and greatly help learners improve aural comprehension level. But, digital audio and Adobe Audition software cannot offer real language communication activity and fail to motivate learners' psychological language discourse output process. Hence, in this experiment, aural competence of experimental group improves significantly, compared with control group, while oral English has no significant difference.

In the experiment designed, it is believed the time for classroom learning and extracurricular learning used by students in experimental group and control group is same, and the influence of different time for classroom learning and extracurricular learning in actual condition is not considered. In order to eliminate the impact of time difference for classroom learning and extracurricular learning on the scores, the author will add data statistics and questionnaire survey about listening and speaking time in both class and after class on the basis of pre-test and post-test in the future experiment so as to make the experiment more scientific.

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Research on The Psychological Problems of Private Higher Vocational Students By Using Network And Mobile Terminal

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Abstract

The psychological problem of the students in higher vocational colleges is one of the key factors influencing the healthy growth of students and the quality of higher vocational education. Traditional method, however, does not propose effective solutions to handle the existing psychological problems of students. Using Internet and mobile terminal to solve psychological problems of higher vocational students and exploring its feasibility and effectiveness is a positive and beneficial practice for higher vocational colleges education, which would conduct positive explorations and researches of the psychological problems of higher vocational students.

Key Words: HIGHER VOCATIONAL, PSYCHOLOGICAL PROBLEM, INTERNET, MOBILE TERMINAL

1. Introduction of the Problem

Higher vocational education plays a very important role in China's education system. On one hand, the economic development of China requires more skilled workers; on the other hand, university students now face severe employment difficulties af-