

Research on the Application of Podcasting Technology in the Teaching of *Music Appreciation*

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Abstract:

The article is based on the problems which are existing in the college course music appreciation, combining with the concept of the "Music Curriculum Standard for compulsory Education" after the New Curriculum Reform, and makes an empirical study on the new model of music appreciation teaching with the podcast technology to assist through a contrast experiment. The results showed that podcasting technology can stimulate students' interest and motivation in music appreciation, promote the interaction of teaching and learning between teachers and students, thus achieving better teaching effects.

Keywords: Podcasting technology, Music appreciation of university, Teaching, Interest, Interactive.

I. INTRODUCTION

Under the tide of realizing the great rejuvenation of the Chinese nation and promoting the all-round development of students, how to put the concept of quality education into practice and highlight the important role of music education in improving the college students' aesthetic perception, emotional recognition and value identification is the university course "*music appreciation*"^[1]. Music appreciation is an important part of music education in university, which is an activity to guide students to feel music. Through appreciation and analysis of works, on the one hand, it promotes the development of students' cognitive ability, on the other hand, it has a positive impact on students' mind and education. University music education should take it as duty — play the aesthetic effect and educational function of music appreciation in today's school education and strive to realize its own value^[2].

1.1 Problems in the Teaching of *Music Appreciation*

At present, there are still many problems in the actual teaching of "*music appreciation*" in colleges and universities whose function of appreciation and enlightenment have not been fully played, mainly manifested in:

1.1.1 Single teaching mode

In the implementation of process in ordinary universities, *music appreciation* is mainly played music by teachers, and students listen to music and teachers intersperse their explanations. Although such a

model highlights the academic characteristics of "listening", it also nourishes the learning situation of "receiving". In the long run, students only need to bring a pair of ears into the classroom, receive auto and the teacher's explanation, but leave nothing behind when they go out of the classroom. Due to the lack of feelings, experiences and communication behaviors, it cannot satisfy the emotional experience of students deeply, and at the same time, students will be deprived of learning enthusiasm.

1.1.2 Insufficient depth of teaching content

The teaching aim of the common course of "*music appreciation*" in colleges and universities is to take music aesthetic as the core, to cultivate students' interests as the driving force and train students' ability of music appreciation, improve the cultural taste and aesthetic literacy of students by imparting knowledge of music appreciation, especially appreciating the works." Music appreciation" is a course with a large amount of information and knowledge. In the limited teaching time, many knowledge cannot be involved or explained in depth.

1.1.3 The evaluation effect is not high

The evaluation of music appreciation is not separation from the traditional curriculum-mainly in the form of the final exam or small paper. In this way, teachers are unable to master the students' study comprehensively and synthetically, guiding further reflection and exploration; students will not use the harvest of appreciation classes as part of their own growth to improve their personal and cultural qualities. Evaluation is only in the form, which makes the effect of discipline small.

1.2 The Concept of "*Music Curriculum Standard for compulsory Education*" after the New Curriculum Reform

Many of the above problems are incompatible with the teaching concept and methods advocated by the Ministry of Education in the *Music Curriculum Standards for compulsory Education* in 2011, which emphasizes that the "curriculum nature" of music is the aesthetic nature of "aesthetic education", the "curriculum concept" is "taking music aesthetics as the core and interest and hobby as the motive force". and "course content" made it clear that feelings and appreciation is an integral part of music learning, is the foundation of music learning, is an effective way to cultivate students' music aesthetic ability. The new curriculum reform has changed the cognition that the course is knowledge and static, and regarded the course as a dynamic mode in which students consciously generate various kinds of experience and pay attention to the development of students' overall quality. From the original "knowledge-based" to "people-oriented", from the original "teacher-centered" to "student-centered", the classroom is no longer teacher-oriented classroom, but a student-oriented classroom. Especially in the era of information, the sustainable development and economic globalization, new requirements have been put forward to student's basic literacy, such as the ability to collect and process information, and to acquire new knowledge independently, communication and cooperation ability, and positive values of caring for nature and others etc. It can be seen that the mode of information and self - service learning has become the inevitable trend

of teaching and learning in the new era. The suggestion of the implementation of "New Curriculum Standard" clearly stipulated that we should "use modern teaching technology means reasonably", in addition, the "Interpretation of New Curriculum Standard," also explicitly put forward: "the teacher should recognize the the new situation brought by modern education technology." Under the premise that teachers make reasonable use of modern education technology, it has become a good helper for teachers' teaching and a good partner for students' study. Students in "music appreciation" class which has a variety of situations to set up and combines sound and image becomes more active, and their interest in learning has improved. Meanwhile, they can effectively cooperate with teachers to complete the corresponding teaching task. It can be seen that a reasonable modern teaching method is bound to be integrated with the new curriculum organically, and the integrated teaching means will add glory to the modern "music appreciation" teaching mode after the new curriculum reform^[3].

1.3 Theoretical Basis and Practice of Podcast Technology

Podcasting, also known as "audio blogging," is one of the technologies used in mobile language learning. It combines the advantages of MP3 and broadcast, and is a new digital broadcasting technology that distributes digital video and audio content over the Internet. The technology allows individuals to create and publish information online and share it with others over the Internet. The biggest advantage of podcast is that users have option to choose the material they are interested in from the Internet, and download it to local computer or other digital mobile terminal to watch (listen) such as MP3 without restriction of time and location. On August 4, 2017, the China Internet Network Information Center (CNNIC) released its 40th "Statistical report on the Development of China's Internet Network" in Beijing, indicating that the number of Chinese Internet users had reached 751 million and the number of mobile Internet users had reached 724 million by June 2017. Digital Survival has become a normal way for Post-90s college students. This objective reality provides the feasibility for the application of podcast technology in teaching^[4].

In "Music Appreciation" teaching, the application of podcast can not only use the form of "audio and video" to provide students with a large amount of actual and authentic phonetic materials, stimulate students' interest in learning. Moreover, its own technical characteristics are more helpful to the students' autonomous learning and cooperative learning. Not only can teachers use this platform to disseminate multimedia music appreciation materials such as audio, video and Flash animation, but can publish their own teaching plans, electronic teaching plans and homework assignments, etc. After uploading the podcast teaching program, students can download, copy and save it freely, review and supply their notes using the platform; students can also upload their own homework and some learning resources through the platform for other students to learn from, or discuss, so as to achieve more free communication and interaction.

Currently, the selections of podcast website on the Internet are very numerous, besides the Himalayas (<http://www.ximalaya.com/explore/>) used in this experiment, there are Podomatic (<http://musicanaweb.podomatic.com>) and some other excellent podcast website that can also offer plenty of music appreciation material.

Based on this assumption, we have designed the teaching empirical research, trying to verify the learning effect of using podcast technology in the teaching of music appreciation to provide new ideas and methods for college music appreciation teaching.

II. RESEARCH DESIGN AND DISCUSSION

2.1 Research Questions

Through teaching, testing and questionnaire and interviews, this study attempts to answer the following two questions: first, is the application of podcast technology in teaching helpful to improve students' music appreciation level? Second, whether students accept and recognize the teaching and autonomous learning methods of music appreciation based on podcasting technology?

2.2 Research Design

The subjects of this study were 70 students in the first semester of the second year of music public elective course in a university in Hubei Province. These students were selected from more than 200 students according to their music appreciation. And then, according to the student individual willingness and experimental requirements, 35 of them were selected as the experimental class, the remaining 35 people as comparative class. The two classes were taught about the music appreciation separately by the same teacher in the multimedia classroom. The textbook was *music appreciation* published by Southwestern Normal University Press. In addition to the normal classroom teaching, the teachers in experimental classes also adopted a podcast as auxiliary teaching model. The specific methods were as follows: first, the teacher go to the Himalayas to download podcasts suitable for students' music appreciation exercises. Classified according to the comprehensive style arrangement, one kind was vocal music works and instrumental works; the second was folk songs and art songs, large-scale vocal music works and operas, pop songs, folk instrumental works, instrumental solo and orchestral works, large-scale instrumental music works, etc^[5]. There were two principles to master when selecting podcast content: one was to keep pace with the times, adapt to the mainstream of modern society, the dominant ideology of current teaching, and suit the needs of contemporary young students. The other was that the selected materials should be closely related to students' life in order to stimulate students' interest in learning. Secondly, teachers would upload selected documents to the Himalayan platform for students to download and listen to. Finally, curriculum activity design: in order to give priority to students, stimulate students interest in learning, the activities of the interaction between teachers and students were blended in: 1. The mysterious composers: teachers chose a mysterious composers every month, and released part of his work and biography to the podcast, let the students guess the composer. 2. My song: each student chose a favorite song and sang the main melody of the song and upload it to the podcast so that other students can find out the name and author of the song. 3, We sing: teachers sang a difficult song, recorded it and to the podcast. The students imitated the melody of song, recorded and posted line. All the students and teachers voted for the best impersonation. 4, Learning music history: as a group, for the unit in music history

development order, selected a theme, combined with the main reference books which were related to this time period, pictures and words to introduce music development in this period, recorded and published on the podcast, review by teachers with students, thereby enhancing students' interest in learning music history^[6].

2.3 Research Steps

This study was based on the teaching of "music appreciation" for 16 weeks. In addition to the teaching of "music appreciation", this experiment also included three parts: test, questionnaire and interview. Pre-school test was conducted during the first teaching week and post-test in the last. In order to ensure the validity of the exam to the maximum extent, the teacher of music theory teaching and research office jointly designed the AB volume of "music appreciation" as the pre-test and post-test paper. In 14 weeks of teaching, the experimental classes of students were carried on the questionnaire survey, which involved three aspects: the first was to investigate the students' attitude towards learning music appreciation by using mobile devices based on podcast technology, the other was to investigate the students' understanding of podcast technology in improving their music appreciation level. The third was to investigate the popularity of the design of four curriculum activities. Finally, according to the results of the investigation, some students with different opinions were interviewed to analyze the deeper reasons behind the questionnaire.

III. RESEARCH RESULTS AND DISCUSSION

From the fact that 35 students in the experimental class owned and used mobile devices such as computer, i Pad and mobile phone (see Table I), the students all have the equipment for mobile learning. The students with computers also accounted for 80%, and the frequency of using mobile devices was very high. At the same time, 96 percent of the students in the experimental class often used mobile phones to learn, 88 percent of the students sometimes used computers to listen to the materials related to the course, and 18 percent of the students often used the iPad to download learning materials (see Table II). This provides a guarantee for the smooth implementation of teaching experiments.

TABLE I. The statistics of the case about the possession and use of mobile devices from the experimental class

Equipment	The number of people possession and their proportion	The number and proportion of people who use the equipment frequently
Mobile phone	35 (100%)	35(100%)
PC (desktop or laptop)	28 (80%)	28 (100%)
i Pad player	4 (11.4%)	3 (75%)

TABLE II. The statistics of the frequency about the use of mobile devices to study from the experimental class

The use of mobile device	Frequency of utilization		
	never/seldom(the number of people)	sometimes(the number of people)	always(the number of people)
Write homework on the personal computer/thesis, collecting information	0% (0)	12% (4)	88% (31)
Listening to information of study with i Pad	60% (3)	22% (1)	18% (1)
Surf the internet with mobile phone and download learning materials	0% (0)	4% (1)	96% (34)

In the middle of the experiment, we conducted a questionnaire survey on the frequency of downloading the podcasts to practice music appreciation in the experimental class. The results are shown in the Table III.

TABLE III. The frequency of music appreciation of podcasts download from the experimental class

Frequency	The number of student and their proportion
Never	2 (5.7%)
1-2 times a week	5 (14.3%)
3-4 times a week	20 (57.1%)
Everyday	8 (2.9%)

Then, two students who never downloaded podcasts for music appreciation exercises were interviewed. The results shows that one of the students didn't think podcasting was helpful to improve music appreciation, so he didn't want to download it. Another student had no time, which suggests that their attitude toward the effectiveness of podcasting determines how they learn.

For the pre-test and post-test results of the experimental class and the control class, we use SPSS 16.0 statistical analysis software to carry out basic data statistics and independent sample t-test. The relevant data analysis results are shown in Table IV.

TABLE IV. Music appreciation related statistics of pre-test and post-test scores and independence sample t test results

		The number of text	Average score	Standard deviation	P value
Pre-test	Constructive class	35	52.6285	4.2640	0.6178
	Experimental class	35	53.1143	3.8331	
Post-test	Constructive class	35	72.4632	3.8945	0.0147
	Experimental class	35	83.2347	4.3546	

The data in Table IV shows that in the pretest, the average scores of "music appreciation" in the control class and the experimental class are about 52.6285 and 53.1143, the standard deviation are about 4.2640 and 3.8331, $P=0.6178>0.05$. There was no significant difference in music appreciation scores between the two classes. In the post test, the average score of the control class is 72.4632, the experimental class improves to 83.2347, the average of the experimental class is higher than that of the control class, and the $P=0.0147<0.05$. These shows that there are significant differences in the test results of the two classes. Therefore, we can see that the music appreciation level of the two classes has improved on the original basis with different degree after a semester of different patterns of the music appreciation teaching, but the level of "music appreciation" in the experimental class is obviously higher than that of the control class. The application of podcasting technology in teaching is helpful to improve students' music appreciation level.

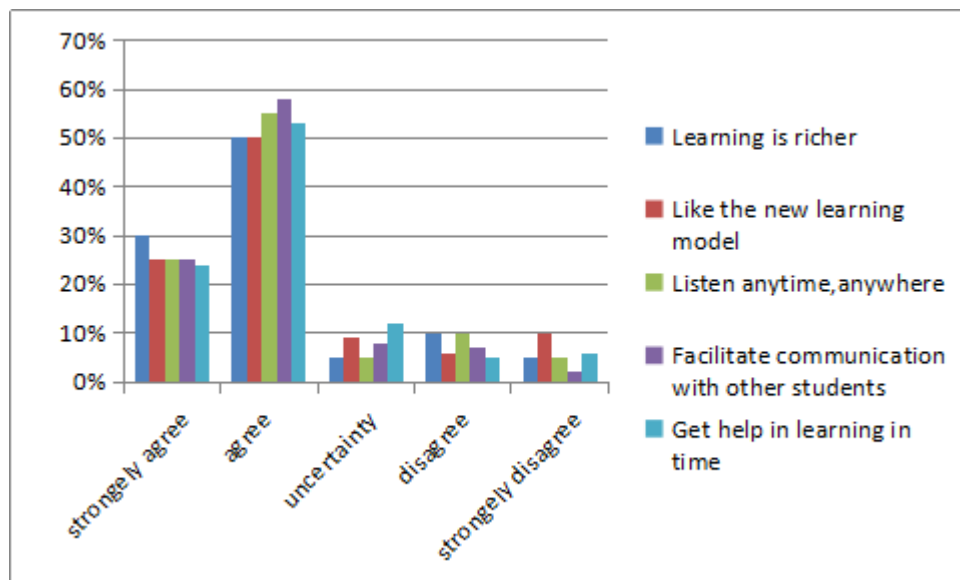


Fig 1: Students' attitude towards the teaching and independent learning mode of music appreciation based on podcasting technology

As for the attitude of students towards the study of "music appreciation" based on podcast technology, the questionnaire data shows that (see Fig 1) most students hold a positive attitude. Eighty percent of

students agreed that "music appreciation" learning, based on podcast technology, provides them with rich learning content, and 65 percent accepted and liked the new "music appreciation" learning model. 80% of the students think that this mobile learning method is convenient for them to consolidate the knowledge learned in the classroom at any time and anywhere, while 61% of the students think that they have the opportunity to communicate and share information with their teachers and classmates in the process of practice. In addition, 57% of the students think that this learning method is convenient to solve the problems they encounter in the process of learning, improving their learning efficiency. Only a small number (about 13%) of the students proposed that they do not approve of the mobile learning mode for this learning method does not conform to their study habits, and they prefer to accept the traditional teaching mode and read books under the guidance of their teachers.

From the data in Table V, about 74.3% of the students believe that use podcast technology can stimulate their interest in learning. Up to 94.3 percent of the students think it is helpful to improve their music appreciation. 54.3% of the students think that blog learning is fun, which can stimulate their enthusiasm for learning and change their learning attitude. 45.7 percent of people think this method is conducive to more effective autonomous learning and cooperative learning, and the use of podcasting technology is convenient for them to learn music anytime and anywhere after class. But there are also a small number of students (about 5.7) who do not endorse or are not sure whether this learning model will help them improve their level of music appreciation, mainly because this model conflicts with their original study habits, and they are not very comfortable with it, furthermore, sometimes there are some technical obstacles to the operation. As a result, podcast as a new learning tool in the use of the process of performance is not very active, to some extent affecting their music appreciation level. The proportion of these students is basically consistent with the proportion of students who do not like podcasting applied to the teaching and learning of music appreciation. From a side, it also shows that there may be a certain correlation between learning attitude and academic achievement.

In addition, about students' favorite podcasts activities, the questionnaire data shows (see Table VI) that everyone's favorite is the mystic composer, then my song, and then our history of singing and learning music. Most students show that they enjoy the process of searching for new composers. It can be seen how important it is to give full play to students' curiosity and motivate their enthusiasm in teaching.

TABLE V. About the effectiveness of podcasting technology in improving students' music appreciation skills

Reason	Number	Proportion (%)
It can stimulate interest in learning	26	74.3
It is interesting	19	54.3
It can help learn music appreciation	17	48.6
It can complement the activities in class	16	45.7
It can enhance the teamwork	12	34.3
The course is interesting	12	34.3

It can develop personal work	4	11.4
I don't think podcast works	2	5.7
It is useless teaching resources	0	0
It wastes time	0	0
It is hard for me to understand the use of podcast	0	0
I prefer teaching without podcast	0	0

TABLE VI. Students' favorite podcasting activity

Task	Number	Proportion (%)
Mystery composer	20	57.1
My music	10	28.6
We sing	3	8.6
Learn history of music	2	5.7

From the students' acceptance attitude to podcast technology and whether to improve the learning effectiveness of music appreciation, we can see that the teaching mode of *music appreciation* based on podcast technology has been affirmed by most of the students. They believe that compared with traditional classroom learning and multimedia classroom, this learning model can stimulate learning interest. It not just enables students to choose materials suitable for their own learning according to their individual learning situation and interests, increases effective input, but also can actively carry out autonomous learning and cooperative learning, so as to improve their music appreciation level. The results of this teaching experiment also prove the validity of this teaching model.

4. CONCLUSIONS

The teaching experiment shows that the teaching mode of music appreciation assisted by podcast technology conforms to the trend of the times, highlights the high level of understanding of the new educational concepts, and meets the new requirement of students in the new situation. Using the new means of modern teaching not only enables students to make full and effective use of their extracurricular time, consolidates what they have learned in class, arouses curiosity and enthusiasm, and strengthens the interactions which are not limited by time and place between teachers and students, students and students, marginalizing to improve the learning effect and humanizing the relationship between teaching and learning. Of course, the application of this model in the actual teaching process may also encounter some problems, such as how teachers improve their technical awareness and application ability, how to choose the appropriate podcast content, and how to guide and supervise students to interact and explore more actively, these problems will become the direction of further study.

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