

A Comparative Study of Talent Training Models Between China and Australia —Taking China University of Geosciences (Wuhan) and Macquarie University in Australia as Examples

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ABSTRACT: This paper selects the electronic music professional training mode of China University of Geosciences (Wuhan) and Macquarie University as the research object, compares the similarities and differences between the two universities in talent training mode, teaching system, curriculum, research direction and teaching team, and analyzes the respective characteristics of talent training of similar majors under different cultural backgrounds. It is hoped that the research can provide some reference for the development of similar schools in China.

Key Words: *China University of Geosciences (Wuhan) ; Macquarie University in Australia; Comparative Perspective; electronic music; Talent training mode*

1. INTRODUCTION

China University of Geosciences (Wuhan) (hereinafter referred to as: CUG) and Macquarie University of Australia are both international universities of Geosciences, which are comprehensive universities of science and engineering. They also attach great importance to the humanities. China University of Geosciences (Wuhan) was founded in 1952. And the school of Arts and Communication was established in May 2006, which is one of the youngest colleges in the University. Macquarie University, founded in 1964, is a new and famous innovative university. Founded in 1999, the Department of Modern Music is committed to interdisciplinary and multi angle mode research and wide participation in various new music activities. It has made great achievements in the practice and theoretical research of pop music, electronic music and art industry management, and has a high international reputation. The two professional departments of the two universities are similar in terms of time and background.

Through understanding, it is found that there are great differences in teaching contents between the two schools. For example, there are many differences in the curriculum setting and requirements, the depth of course teaching and the allocation of teachers. This leads to the author's thinking and in-depth discussion, so the author wants to explore the similarities and differences between China University of Geosciences (Wuhan) and Macquarie University in electronic music education and teaching, to study whether the education mode of similar majors can be used for reference and the possibility of learning from each other based on the

different music literacy in different countries. This may be helpful for the establishment of talent cultivation and training objectives in the future.

2. INTRODUCTION TO THE TRAINING OF ELECTRONIC MUSIC MAJOR IN CHINA UNIVERSITY OF GEOSCIENCES (WUHAN)

2.1. Talent Training Mode

As a comprehensive university of science and engineering, China University of Geosciences (Wuhan) pays more attention to the training of students' professional skills. The goal of professional training is to cultivate compound music talents with solid music theoretical knowledge, comprehensive quality, excellent professional skills, artistic innovation pursuit, artistic innovation ability, music production, editing, planning and communication ability. School education attaches great importance to the cultivation of students' creative ability and hands-on production ability.

2.2. Teaching system and Curriculum

Undergraduate teaching is 4 academic years(8 semesters). The curriculum arrangement fully reflects the talent training mode and professional characteristics.

Table 1: classified statistics of music courses

	Liberal Education Courses		Disciplinary Fundamental Courses	Main Specialty Courses	Specialty Elective Courses	Practical Work	Freedom Study	Total Hour	Total Credits
	Required Course	Elective Course							
Class Hours/ Credits	536/33.5	192/12	640/40	624/39	256/16	29 周/29	/5	2328 +30 周	174.5
Proportion of Credits	26.07%		22.92%	22.35%	9.17%	16.62%	2.87%		100%

A total of 174.5 credits are required for four-year undergraduate study. The course plate includes Liberal Education Courses, Disciplinary Fundamental Courses, Main Specialty Courses, Specialty Elective Courses and Practice Course. Practice Course includes Practice work and Freedom Study.

The Liberal Education Courses mainly covers the *Ideological and Political*, *Modern History*, *Sports* and *English* courses, which are set up in accordance with the unified provisions of the Ministry of Education.

Disciplinary Fundamental Courses include *Music Theory*, *Chinese Folk Music*, *Solfeggio*, *Piano*, *History of Western Music*, *History of Chinese Music*, *Piano Accompaniment*, *Introduction to the 20th Century Music*, etc. This kind of course is a compulsory course for students majoring in music. It mainly cultivates students' music foundation, artistic accomplishment and comprehensive music ability.

Main Specialty Courses fully reflect the important course content that electronic music major students need to master.

Theory of Composing paves the way for laying a solid foundation for the basic theory of creation. *Basic Audio Technology and Audio Editing*, *MIDI Foundation and Music Sequencer Production*, *Timbre and Effects Plug-ins Use*, *Popular Music Arranging*, *Sound Recording and Mixing*, *Film and Television Music* are all important courses for electronic music majors, focusing on building students' ability in electronic music major(Chuanbo Liu, 2011). The Disciplinary Fundamental Courses and Main Specialty Courses is 22.92% and 22.35% respectively, and the proportion of other Specialty Elective Courses is 9.17%, Practical Work is 9.17% and Freedom Study is 2.87%.

Specialty Elective Courses are composed of *Score Software Application*, *Chamber Music Rehearsal*, *Chorus rehearsal*, *Piano*, *Appreciation of Chinese and Foreign Music*, *World Nationality Music* and *Animation Music*. Students can choose according to the credit requirements. According to the analysis of course selection in recent years, *Score Software Application*, *Chamber Music Rehearsal* and *Animation Music* are several courses with high selection rate.

These courses are very consistent with the objectives of personnel training. After investigation and interview, students are very interested in similar courses supplemented with Main Specialty Courses. Other courses, as the improvement of quality and cultivation, are also the enrichment and supplement of the basic courses of the discipline. Students who have spare power are interested in learning. From the perspective of curriculum, most of the Disciplinary Fundamental Courses are arranged in the first or the second semesters. The Main Specialty Courses is initially involved from the second semester, and the focus is from the third to sixth semesters, lasting for five semesters. The

Disciplinary Fundamental Courses has made a good foundation for the main professional courses.

2.3. Research Direction and Mode

The teaching goal of Electronic Music Department in CUG is to cultivate talents of electronic music creation and production. The requirements that students of this major need to achieve and the ways to achieve the requirements are as follows:

Table 2: graduation requirements and implementation approaches

Number	Graduation requirements	Realization approach (teaching process)
1	Have the basic theory and skills of music creation and production	Classroom teaching: <i>Theory of Composing , Harmony , Musical Form , Polyphony , Gametophyte , Music Acoustics, MIDI Foundation and Music Sequencer Production, Basic Technology and Audio Editing, Sound Recording and Mixing, etc.</i>
2	Pay attention to the comprehensive training of music foundation, artistic accomplishment and comprehensive quality	Classroom teaching: <i>Music Theory, Solfeggio, History of Western Music, History of Chinese Music, Chinese Folk Music, Introduction to the 20th Century Music, etc.</i>
3	Pay attention to the practice of music creation and production	Out-of-class Activities: <i>Art practice , Social Practice Music Tour</i>
4	It integrates the innovative achievements of Chinese and foreign music creation and production, and has a certain ability of music creation and production	Out-of-class Activities: <i>Music Tour, Graduation Concert, etc.</i>

3. INTRODUCTION TO PROFESSIONAL TRAINING OF MODERN MUSIC DEPARTMENT OF MACQUARIE UNIVERSITY

3.1. Talent training mode

There are two major areas of study for students in the Music Department of the University. , the first one contains traditional vocal music research, music production technology, instrument performance, as well as unique rhythm research and DJ courses. Secondly, modern dance is also a part of the this department. Both undergraduate and graduate students in the University pay attention to students' creativity, expressiveness and team work ability, pay attention to students' practice and editing ability. "Interdisciplinary" scientific

research and teaching have become the teaching characteristics of Macquarie University. Music technology has also expanded from the traditional music field to multi industry fields such as film and television, multimedia and so on. The teacher team composed of famous musicians has become an important resource for music technology teaching research and teaching practice(Xiang Li, 2015).

3.2. Teaching system and Curriculum

The school mainly focuses on basic music technology and students' editing ability. Most basic music courses are completed by students themselves, such as music theory courses. Some courses are integrated into other courses for unified explanation, such as composition courses. The specific curriculum arrangement is as follows:

Table 3: courses and credit arrangement of Department of modern music, Macquarie University

School Year	Optional credits	Course
Freshman (Compulsory)		Experiencing Popular Music
Sophomore (elective)	6 points elective	Music Authorship and Song writing
		Music Production1
		Music Production2
		Experimentation and Innovation
		Introduction to Vocal Studies
		Intermediate Vocal Studies
		Guitar Principles
		The Music Business
		Sound Cultures
		Studies in Rhythm
		African Drumming
Junior (Compulsory)	3 points elective	Music Creativities :Projects and Directions
Junior (elective)	9 points elective	Music ,Sound and Moving Image
		Advanced Music Production
		Word Music
		Sound,Image and Interactive Media
		Advanced Vocal Studies
		Advanced Guitar
		Digital Music:Performance,Remixing and DJ
		Musical Literacy

The University's three-year undergraduate study requires 69 credits, including 42 credits for music major, and the remaining 27 credits need to be obtained from the media major of Bachelor of media arts. There is no fixed semester for the course. Students can choose the courses according to their own foundation and learning.

Through comparison, we can find that the courses of Macquarie's modern music department are quite different from those of China University of Geosciences (Wuhan). Because Macquarie University does not recruit students majoring in music, the first course for freshmen is to experience pop music. Since sophomore, there has been a professional course injection. Both the primary and intermediate courses

will be completed in sophomore, such as: *Music Production 1&2* and *Introduction to Vocal Studies* and *Intermediate Vocal Studies*. Because the direction of talent training is in favor of commercial music editing and production, students will also learn music and business courses. Junior students have joined thesis courses and advanced courses, such as: advanced music production, advanced vocal music and advanced guitar. Electronic music production, vocal music and guitar are all systematic learning from junior high school to advanced level. Moreover, *Sound, Image and Interactive Media* as well as *Digital Music: Performance, Remixing and DJ* embody the combination of digital technology media and music, and complement the talent training mode of Macquarie University's modern music department.

4. COMPARATIVE ANALYSIS OF TEACHING BETWEEN ELECTRONIC MUSIC DEPARTMENT OF CHINA UNIVERSITY OF GEOSCIENCES (WUHAN) AND MODERN MUSIC DEPARTMENT OF MACQUARIE UNIVERSITY

4.1. Comparison of Talent Training Mode

As a discipline of musicology, Electronic Music major in China University of Geosciences (Wuhan) emphasizes the foundation of music and creation. The enrollment mode is the current popular enrollment mode of art in China. It is necessary to investigate students' musical skills and basic literacy before selecting the college entrance examination for cultural courses. The enrollment of Modern Music Department of Macquarie University does not require a separate assessment of music skills. Students who like or love music can apply for admission.

Although China's basic education is developing rapidly, compared with many developed countries, it is still an indisputable fact that the domestic education level is generally low, and the study of music literacy is not as good as that of foreign countries. However, the popularity rate of music majors in Australia is 74% and that in China is 69%. The gap between them is not very significant. If we consider the comprehensive development level of culture, society, science and technology, economy and culture between the two countries and the development status of electronic music education, coupled with the relatively late start in China, and the immature facilities and related conditions, it is very gratifying that the electronic music education in domestic comprehensive colleges and Universities can have such a scale (Jia Liu, 2004).

The different ways of enrollment determine the different training plans. Macquarie University is the cultivation of diversified and compound talents. Students with other professional backgrounds, such as media, electronics and computer, are selected to study in electronic music specialty to ensure their diversified professional background and

knowledge structure. It emphasizes the cultivation of compound talents and pays attention to the editing and editing abilities of students. Electronic Music major in CUG(Wuhan) focuses on the cultivation of students' application on the basis of creation and the cultivation of electronic music knowledge.

4.2. Comparison of curriculum

There are great differences between the two schools in the setting of music creation courses. For example, as a major course of China University of Geosciences (Wuhan), *Theory of Composing* needs to be studied for four semesters. Students will study systematically the creation and adaptation of songs and the creation of instrumental music, so as to lay a good foundation for music creation. Macquarie University has only one semester of song creation, which is called "*Music Authorship and Song writing*", which integrates simple creation theory with music copyright. In the teaching of instrumental music, Macquarie University lists guitar and drum as an independent course, which makes students learn guitar and drum more carefully. On the basis of music courses, the two schools have very different settings. The Electronic Music major of CUG(Wuhan) enrolls students with music foundation. In freshmen and sophomores, basic courses such as music theory and solfeggio are arranged. However, in Macquarie University, where students with other professional backgrounds, such as media, electronics, computer and so on, have not opened such basic music courses. Instead, many professional elective courses have been added, allowing students to choose the professional knowledge they want to know more. One third of the elective courses in Macquarie University are closely related to the media industry. The elective courses in CUG (Wuhan) are divided into professional elective courses and general elective courses, and the general elective courses no longer emphasize and restrict the major. The Department of modern music of Macquarie University pays more attention to the training of recording, media and other multimedia industries, while CUG (Wuhan) emphasizes the cultivation of the ability of music innovation, creation and production.

4.3. Comparison of teaching teams

The full-time teachers in the electronic music department of CUG (Wuhan) all graduated from musicology related majors, and all have master's degree. The Faculty of Macquarie University is mainly composed of famous music producers. Howard Gelman, a former BBC producer and American radio producer, and Diane Hughes, the current president of the Australian Vocal Music Teachers Association, are teachers of the Department. Teachers' academic background can be divided into two categories: traditional music professional background and non-traditional music professional background. Among them, the background of non-traditional music includes communication, physics, computer, electronics and specialized electronic music. They

have their own studio and often work with popular stars to produce songs, MV, etc. When they cooperate, they also let students participate in learning and practice.

The faculty team of CUG (Wuhan) reflects the current unified requirements for university teachers in China, and attaches great importance to teachers' educational background and academic level. However, the faculty team of Macquarie University pays more attention to teachers' practical experience and social work experience.

5. SUMMARY

From the comparison of talent training mode, curriculum and requirements and teacher structure between the two schools, it can be seen that there are great differences in the training of similar majors in different countries, cultural backgrounds and educational backgrounds. In China, we pay more attention to the basic learning of students, and emphasize the cultivation of students' basic ability, while in foreign countries, they pay more attention to the cultivation of practical ability. Of course, the electronic music major pays more attention to practical ability, which is also a place worthy of consideration and optimization in talent training and curriculum setting in the future. At the same time, school enterprise cooperation or the establishment of off campus practice base are also the aspects that should be paid attention to in domestic personnel training. Only by emphasizing the basic learning, paying attention to the ability training and expanding the practical field, can we cultivate the specialized talents who meet the requirements of the discipline and the social needs.

Based on the comparison between the two universities, the author also puts forward some suggestions on the development of Electronic Music in Chinese universities :

① Pay attention to the combination of Art and Science
Strengthen the connection and cooperation with electronic engineering, mechanical engineering, physics and computer science (Yifei Yang, 2015). Using the resources of comprehensive universities, strengthening the communication between departments and setting up interdisciplinary elective courses, and also can encourage engineering or media students to combine their research direction with electronic music.

② Strengthen academic exchanges

The establishment of flexible foreign exchange system can maintain a good academic atmosphere and scientific research environment. We should not only enhance the exchange of academic centers, but also strengthen academic exchanges at home and abroad, learn from each other's strengths and complement each other's strengths, so as to maintain the advanced level of academic theoretical research.

③ Increasing the role of social practice in Teaching

Electronic music is a subject closely combined with business, which has a wide range of living space in the market. Each region has its own unique electronic music industry. Through the needs of local music industry, we can constant-

ly reform the teaching methods and methods, strengthen the contact and exchange with the local and surrounding related industries, and widely establish the electronic music practice base and practice base. Actively explore a better way of art practice, encourage students to participate in the whole process from creation to completion (Kai Yang, 2011). The training plan also needs to conduct market research on social needs, so as to adjust the teaching content in time, so as to ensure the cultivation of useful talents to meet the social needs.

ACKNOWLEDGMENT

Supported by Teaching Research Project in 2016 of China University of Geosciences (Wuhan)

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