Reflections on the Joint Cultivation of Undergraduate Animation Education in China and Thailand

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Abstract—In recent years, with the advancement of the "The Belt and Road", the cooperation between China and ASEAN countries is increasingly close, and the cross-border exchange of education between China and ASEAN has been further promoted. This article will research targeted at undergraduate animation education in Thailand. By studying the current educational pattern of the animation major in Thai universities and exploring the roots of the existing issues, combining the characteristics of the animation major in the College of Chinese & ASEAN Arts, try to put forward some ideas for the construction of a collaborative cultivating curriculum system for Chinese and Thai undergraduate talents. In order to provide some useful thoughts for the future development of international educational cooperation based on the College of Chinese & ASEAN Arts.

Index Terms—China-ASEAN academy of Arts, animation undergraduate talents, international collaborative education

I. INTRODUCTION

With the steady improvement of China's comprehensive strength and international influence in the world over the past decade, China's cooperation with neighboring countries has become increasingly close. The ten ASEAN countries, as the priority direction of China's peripheral diplomacy, are also the key construction areas of the "The Belt and Road". The B & Initiative, which is a development strategy proposed by Chinese President Xi Jinping that focuses on connectivity and cooperation with investments of billions in railway lines, pipelines, and ports, could provide a boost for cultural exchanges, international commercial cooperation, and also for insurance. With the establishment of the China-ASEAN Free Trade Area, the ASEAN region is becoming China's most dynamic partner. According to the data released by the Chinese General Administration of Customs on March 7, 2020, the total value of China-ASEAN trade between January and February 2020 was 594.11 billion yuan, accounting for 14.4% of China's total foreign trade value. This is the first time the ASEAN region has surpassed the European Union and the United States, it has historically become China's largest trading partner. The high degree cooperation

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between the countries has further promoted the cross-border exchange of education. Therefore, the international cooperation pattern of higher education in the cross-cultural perspective has strong research significance. In this article, the research objective is located in Thailand, which in the center of the ASEAN region. This paper takes the undergraduate animation majors of Chiang Mai University and Assumption University as the background, and analyzes their professional positioning and characteristics of the undergraduate animation curriculum. Combined with the current situation of cooperative education with Thailand and the characteristics of animation major of College of Chinese & ASEAN Arts, this research tries to put forward the construction conceptions of the animation talent cultivation pattern, and provides corresponding thinking for further to improving the collaborative cultivation system of international talents in the future.

II. STATUS OF UNDERGRADUATE CURRICULUM SYSTEM FOR ANIMATION MAJOR IN THAI UNIVERSITIES

Chiang Mai University and Assumption University are both the top universities in Thailand. The undergraduate animation course system of these two universities, representing two different models of animation talent cultivation in Thailand. Therefore, focusing on the animation curriculum system of these two universities has strong research value.

A. Chiang Mai University

Animation and Visual Effects department of Chiang Mai University is under the administered of the College of Arts, Media and Technology. The undergraduate Animation department of Chiang Mai University almost focuses on cultivating talents of Two - Dimensional & Three - Dimensional Animation and Visual Effects. As shown in Table I, the curriculum system consists of 10 core courses, 12 major courses and 30 major electives courses. The teaching method is based on the traditional face-to-face teaching and assisted by some network teaching resources. After the first 3 semesters of basic courses, students can choose two major directions such as Animation and Visual Effects by themselves.

TABLE I. THE CURRICULUM STRUCTURE OF CHIANG MAI UNIVERSITY
ANIMATION MAJOR [1]

Type of the course	Count	Percentage
Core Courses	10	15.6%
Major Courses (Animation)	12	18.8%
Major Courses (Visual Effect)	12	18.8%
Major Electives Courses	30	46.8%

There are four advantages of the undergraduate animation major curriculum system of Chiang Mai University:

• Reasonable education process

The animation major curriculum system of Chiang Mai University is reasonable and covers a comprehensive range of Two - Dimensional & Three - Dimensional Animation professional skills.

• Practical teaching

In the first semester of the senior year, the college arranged a 120 credit hours commercial work integration course, which practiced students' graduation design before the actual teaching mode of the project, which with favorable teaching effect.

• High-quality elective courses

There is a high openness of elective courses for animation majors. Not only some elective courses have high relevance and extensibility with core courses and major courses, but also some interesting contents such as "Cosplay Design for Animation Cosplay" and "Toy and Souvenir Product Design" are set up.

• Excellent hardware

The college provides a favorable environment and hardware guarantee for the animation major, and each class is arranged with a corresponding professional classroom. In addition to classroom teaching, the specialized professional classroom can also undertake a series of learning activities such as students' homework, exercises and self-study. Professional classrooms usually have a good learning atmosphere, and each classroom is equipped with a responsible teacher. Students can also participate in some exercises of teachers' business projects according to their own will.

And there are three deficiencies in the curriculum system of the undergraduate animation major of Chiang Mai University:

· Lack of relevance

In the first three semesters, there is an obvious low relationship between the content of the course group and the professional skills of animation. Among the 11 professional courses, there are 8 basic general art courses, and only 3 of them involve animation content.

• Unreasonable courses

There are certain issues in the curriculum setting of the professional direction. The distinction between the Two - Dimensional and Three - Dimensional courses in the animation professional direction is blurred, the teaching force of the two animation categories is averaged in a limited class time, and the Two - Dimensional & Three - Dimensional Animation professional courses are arranged

disorderly. As a result, students not only have insufficient learning intensity, but are also prone to confusion during the learning process. Meanwhile, the curriculum setting of Visual Effects was unreasonable. All the courses of 5 semesters, there was only one *Rotoscope* with 60 credit hours is the software course with the content of visual effect, and the intensity was obviously insufficient.

• Be short of the theoretical courses

As a public comprehensive university, there is a lack of animation theory research courses in the animation curriculum system of Chiang Mai University, and there is also a lack of creative courses in the curriculum system. Only the animation major has a 60 credit hours course "Artistic Conception and Digital Creativity", and among 30 professional optional courses, there are only 3 courses emphasize on creative design.

The talent cultivation method of Chiang Mai University's animation major is more representative in Thai public comprehensive universities: Mahidol University, Prince Songkhla University and other public institutions have the similar talent training ideas.

B. Assumption University

Unlike the public universities, the private Assumption University has established an independent secondary college for the animation major - Computer Generated Imagery. Assumption University's undergraduate major in animation is more pragmatic than that of Chiang Mai University, which emphasize on the practical training of Higher-Quality Three - Dimensional Animation and Visual Effect applied technology talents. After the first 4 semesters of basic courses, students can choose two major directions such as Animation and Visual Effects by themselves. We could see the course structure of the animation major at Assumption University in Table II.

TABLE II. THE CURRICULUM STRUCTURE OF ASSUMPTION UNIVERSITY ANIMATION MAJOR [2]

Type of the course	Count	Percentage
Core Course	12	30%
Major Required Courses	16	40%
Major Electives Courses (Animation)	5	12.5%
Major Electives Courses (Visual Effect)	5	12.5%
Free Electives Courses	2	5%

The undergraduate talent training program of Computer Generated Imagery in Assumption University which has four advantages.

• Relatively reasonable curriculum system

The animation curriculum system at Assumption University is more reasonable. Among the 18 professional basic courses in the first 4 semesters, only 5 courses are basic general art courses, and 13 courses are animation courses. Besides, the sequence, difficulty and logical relationship of the above courses have been carefully considered and gradually deepened. Before the division of the majors, students were fully aware of the technical characteristics and quality requirements of these two

majors, and the major division courses were also precisely designed.

• Emphasize hybrid education

There are obvious advantages of the hybrid classroom in the animation major of Assumption University over the traditional teaching method. The rotating hybrid model emphasizes an interactive teaching method that organically mixes face-to-face teaching, online courses, offline self-study, online discussion and other teaching technologies, and turns to students based on knowledge points. In particular, the animation subject naturally needs to rely on a lot of network resources, so hybrid teaching pattern can achieve better teaching results.

• Linked with the industry

Assumption University was founded as a business academy; the college attaches great importance to the combination of production and education. Not only integrated marketing and business operation lessons into the curriculum system, but also arranged the students to collaborate in groups at the first semester, and carried out group practice of project system in subsequent professional courses such as "Computer Graphics Design Studio I-V" to simulate the working environment after graduation in advance.

• High-intensity practice training

In junior year summer vacation students have 120 hours of the CGI practice courses. The university is responsible for transferring students to Three - Dimensional Animation and Visual Effects companies which have signed cooperation agreements for internship, through the high intensity of actual combat training to improve students' skills and provided a basis for the senior graduation design.

Similarly, there are four shortcomings in the training program for animation undergraduates at Assumption University.

Over-emphasis on the industry

The teaching content is relatively single, and excessive emphasis is placed on the combination of production and education. The core idea of Assumption University's animation professional course is to provide high-quality animation production personnel for enterprises, which has some characteristics of higher vocational education to a certain extent, and lack of the training which ordinary universities should have to develop students' comprehensive skills and research ability.

• Ignore the diversity

Abandoned other professional directions of animation, only focusing on the field of Three - Dimensional animation and film & television special effects. At the level of two-dimensional animation, only one course 2-dimensional foundation was set up, which only explains the motion rules to assist the action binding for three-dimensional animation courses, and have not considered any course about the comic, illustration, and conception design. This inevitably results in students' lack of comprehensive understanding of the entire animation subject.

Professional electives are scarce Major elective courses are relatively scarce. Only 10

Major electives courses, which their content is highly compatible with the core courses. Therefore, the content of major elective courses is so limited that could only be used as an auxiliary to the core courses, which could hardly broaden the horizons of students.

Lack of the research courses

Assumption University's animation major is even more lacking in creative training than Chiang Mai University. There is only one "Thailand Creativity" in all of the courses, which solidifies the students 'creative thinking in the local culture. Obviously, under this single high-intensity professional skills education mode, what level of research ability can students be cultivated.

The talent cultivation pattern of Assumption University's animation major is more representative in Thai private university: Thonburi University, Silpakorn University, Kantana Film and Animation Institute, and other private institutions have the similar talent cultivation ideas.

III. ROOTS OF THE ISSUES IN THAI ANIMATION EDUCATION

According to Dr. Dong liping's research: The cultivation of talents in universities is closely related to industrial transformation and upgrading and industrial technological progress in the process of national modernization. [3] And based on the theory of "Industry influences specialty, professional service for industry", the various unreasonable talent training models of Thai university animation undergraduates are generally affected by the immature Thai animation industry.

Although Thai animation used to be highly influential, Thai animation pioneers such as Saney Klaykleum, Payout Ngaokrachang, and other Thai animation founder have created a series of original animations with obvious Thai art characteristics since 1945. Among them, hand-painted animation film based on mythological themes in 1979: the highly artistic master piece "The Adventures of Sudsakorn" which was famous in the world. However, the current Thai animation industry is not only in the last team of Southeast Asia, but also at the weak link of the global animation industry chain structure. Although Thailand has a long history of animation, its animation industry has developed rapidly in the past decade: 74% of animation companies were founded in the last 10 years, and 28% of them were founded in 4-6 years.[4] Because the industry is relatively young, most companies are directly integrating their business with the popular 3d Animation. According to statistics from Southeast Asia Animation Report 2018: "more than half of the respondents said 3d Animation is their main business, followed by 2d Animation, Visual Effects, Modeling and Artwork." And most Thai animation companies are only engaged in outsourced foundry work, and only a few number of companies that insist on creating original animation. In 1996, Sayoko Kinoshita, the director of the Hiroshima International Animation Festival, interviewed Thai animation workers. She gave a high evaluation of Thai animation technology, but she thought that the final work lacked creativity and innovation. [5]

Meanwhile, based on the close combination of economy and culture between Thailand and Japan, the Thai animation market is also severely squeezed by Japanese animation. The excellent Japanese animation, comic, and peripheral products are extremely popular in Thailand. This makes the creation of Thai original animations to be more difficult. The famous Thai animation director Chalida Uabumrungjit convinces: "Thai animation is hardly considered a serious business. Animation is just a short filling between two TV series, it is severely squeezed by other cultural programs." [6]

According to this situation, although Thailand has a relatively large domestic market for animation, except for functional animation such as work products, advertising, medical treatment, etc., Thailand 's original animation is extremely small: Since the release of "The Adventures of Sudsakorn" 39 years later, Thailand has completed the second animation film "The Legend of Muay Thai: Nine Satra." At present, only a few Thai animation companies have their own original intellectual property, and these Thai original animations are also in the misunderstanding which Chinese animation has once fallen into: most of the original animation are children's theme, and only a few of the animation tries to tell some other story which fall into the "national animation" cycle, focusing on the accumulate Thai cultural symbols in the animation, but not in the scriptwriter with careful consideration on connotation and emotional expression. In addition, due to the characteristics of domestic language and monoculture in Thailand, these original animations, which are relatively rare, show a strong localization trend. Therefore, it is difficult for them to have a strong cultural appeal and have an international impact.

The characteristics of the Thai animation industry explain why there are many issues in the curriculum system on the animation major of the Thai universities represented by Chiang Mai and Assumption University. So what kind of international cooperation concept should we use to achieve simultaneous progress in China-Thailand animation education?

IV. THE INTERNATIONAL EDUCATION BASED ON COLLEGE OF CHINESE & ASEAN ARTS

A series of existed issues of the animation education which in Thai universities have made the educators of Thailand start to consider about the solutions, the international cultivation is an effective approach. China and Thailand have a long history of friendly exchanges. With the comprehensive improvement of China's national strength, studying in China has become the first choice for more and more Siamese students. In this context, we should be clear compared with the numerous university which have the animation major in China, what advantages does the College of Chinese & Asean Arts have?

A. The Fundamental Guarantee and Advantages in the College of Chinese & ASEAN Arts

Johann Friedrich Herbart believes: "The guarantee of fundamental conditions in the schools, is a prerequisite for ensuring educational results." [7] According to this theory, if we need to construct a reasonable theoretical conception of international education system between China and Thailand, we should analyze the fundamental guarantee and advantages in the College of Chinese & ASEAN Arts first.

The College of Chinese & ASEAN Arts is located in Chengdu, the national central city in southwestern China, which has the innate geographical advantage of international cooperation with Thailand. Furthermore, School of Film Television and Animation, the secondary academy which under the College of Chinese & ASEAN Arts, has mature international education capabilities. The School of Film and Animation not only has the qualifications to recruit undergraduate and postgraduate students from the ASEAN region, but also has already established a variety of international cooperation agreements with University of New Hampshire, Waikato Institute of Technology, Chiang Mai University and other international universities. They through joint training, teacher-student exchange, project development, short-term study tours, etc. Various forms continue to strengthen international exchanges and cooperation.

In addition, the Animation Department of the School of Film and Animation has strong power: it was approved as a national specialty of China in 2010, was rated as a five-star level major in 2016, and was awarded the first-class construction major in Sichuan Province in 2019; the academy has a provincial-level professional animation academic theoretical research institution: Sichuan Animation Research Center, and the provincial collaborative innovation platform: Sichuan Animation Cooperative Innovation Center. The Animation Department has a well-functioning teaching staff: including 3 professors, 5 associate professors, 12 lecturers and 2 teaching assistants. Among them, the proportion of teachers with "double capability" qualifications are as high as 80%, In addition, there are 5 teachers with overseas education background of doctoral education in Thailand.

The philosophy of running undergraduate animation program in College of Chinese & ASEAN Arts is unique. Comprehensive coverage in the animation professional direction: including Two - Dimensional animation, Three -Dimensional animation, Comic Design and Experimental Animation. The curriculum system covers the professional skills teaching with the whole process of the above four types of professional division from conception and creativity, script splitting, pre-design, mid-term production, and post-visual effects. In addition, the Animation Department clearly divides the cultivation categories of animation talents. According to the students' personal qualities, strengths and choices, we will provide targeted support for the "3.0 module". In other words, students can choose the suitable development direction in these three-talent cultivation pattern of creativity, research and application technology. In this regard, the animation department will provide comprehensive collaborative assistance to students' learning, research and creation through the teachers' professional studios, Sichuan

Animation Research Center and Sichuan Animation Cooperative Innovation Center.

Focusing on the cultivation of creative ability is the core concept of the animation major of the College of Chinese & ASEAN Arts. And the academy attaches great importance to the development of comic major: because comic is not only the source of animation, but also requires the highest professional intensity of required creative ability. In mature animation industry systems, such as Japanese and American, comics have always at the core position of their animation industries. After successfully attracting audiences through the first market operation of original comics, they are gradually adapted into television animation, movie animation, OVA & ONA animation, games, and even live action film in order to ensure the smooth implementation of the secondary market operation, finally form an enormous product system with the common intellectual property. Only when the industry has an enough proportion of creative animation professionals, the outstanding animation can continue to be raised. The core conception of this animation strategy that has been tested by Japan and the United States for nearly half a century is " Creativity is the first, content is the king". This is Not only the philosophy admired by the animation major of College of Chinese & ASEAN Arts, but it is also a worthy consideration for Thai animation education.

B. Suggestions on the International Cultivation of Chinese and Thailand Animation Cooperation

The cultivation of Chinese and Thai undergraduate animation professionals' talents can be expanded based on the current international education-running framework of the College of Chinese & ASEAN Arts. In the future, we can consider the implementation of three modes such as undergraduate international students, undergraduate exchange students, and short-term cooperative training programs. Undergraduate international students continue to recruit qualified Thai high school graduates with reference to the current operating plan. Undergraduate exchange students can consider signing a mutual credit recognition agreement with more institutions in Thailand to implement a policy of excellent student exchange. For short-term project cooperation, the difference between the Thai university system and the Chinese university can be used. During the vacation season in Thailand from April to June, Thai animation teachers could lead undergraduate students to Chengdu for academic exchanges. Based on the above framework, the author intends to propose the following ideas:

Determine the brand status of College of Chinese & ASEAN Arts' animation major in Southeast Asia, and promote the progress to further expand our school's influence and publicity in Thailand. In information era, the concept of brand has expanded from business to multiple fields. In the education sector, the construction of brand specialty has become a trend of major universities in China to present their own core competitiveness. The animation major of College of Chinese & ASEAN Arts has formed a famous brand in China and has a good reputation. However,

the international cooperation with Thailand is still in the preliminary stage: Thailand academia, the industry now knows about our animation professional relative few, therefore, there is still a large space to expand the international education of our academy. With the influence of China's "The Belt and Road" construction in the ASEAN region, the promotion of animation education in the international arena, and the historical opportunity for the re-emergence of Chinese animation, our academy should further establish its professional brand in the ASEAN region. However, the effects of professional brands need to rely on actual teaching quality.

Improve the teaching quality between China-ASEAN College of Art and Thailand's colleges in animation. For the international cooperation education, the first issue is language. In recent years, there has been a certain degree of language barriers among Thai international students which in China. In the view of these categories international education pattern mentioned above, we should consider the language problems of overseas students in a targeted manner: First of all, the undergraduate international students should have a detailed understanding of their learning at the time of enrollment. We can moderately increase their HSK test score line and review them through interviews. Secondly, for the undergraduate exchange students and short-term project cooperation students, it is recommended to implement English-Chinese bilingual integration. Because Thai universities generally emphasize the components of English in daily teaching, some universities represented by Assumption, Mahidol, and Ramkhamhaeng University are carrying out the whole English teaching. When Thai students have a temporary communication problem in Chinese, English can be an alternative supplementary plan.

In the professional education filed, we should consider the teaching concepts of cognitivism and constructivism, on the basis of ensuring the current teaching characteristics of animation majors, and according to the specific learning process of Thai students, we can consider developing five mixed teaching models such as rotation, flex, self-blend, online driver and online lab model. These five teaching models do not have a specific traditional classroom and online learning collaboration mechanism, which are used appropriately to ensure that international students can obtain the expected learning effect. Based on the neglect of the research and creative ability of students in Thai animation major, in addition to the corresponding teaching links in the curriculum system, the academy should also take the platform advantages from Sichuan Animation Research Center and Sichuan Animation Cooperative Innovation Center to vigorously expand the corresponding capabilities of Thai students.

At the same time, we should also pay attention to the impact of cultural differences between China and Thailand. Robert E. Slavin believes: "The specific psychology and behavior formed by students growing up in a specific cultural background have an important impact on classroom teaching." [8] Based on different cultural backgrounds, international students are prone to problems

such as insufficient local life and difficulties in integration. In addition, the unfamiliar environment of the eastern nations in foreign countries usually tends to gather their natives, lacks the motive to actively participate and integrate into the local life, and has the psychological basis to choose to stay away from local customs. According to Suhomlinski's pedagogical theory: "In the collective, everyone is under the education of others. Students exert mutual educational influence in the campus, and can even play a more effective role than teachers." [9] We can make the following solutions: Initially, we can try to provide Thai students with elective courses on cross-cultural communication so that they can understand, adapt, and love Chinese culture. Then the academy should try to adjust the current management mode of setting up professional classes for international students separately, gradually adjust to mixed classes with Chinese and Thai students, or even arrange for Chinese and Thai students to live together to relieve the isolation psychological effect of the international students. And we should also pay attention to mixing Chinese and Thai students in the same work team, through the positive influence to help Thai students in cultural confusion into the environment of studying abroad. Finally, Thai students should be encouraged to take part in various professional competitions to bring more active learning motivation to them with actual learning results.

Encourage teachers from College of Chinese & ASEAN Arts to study and communicate in Thailand. On the one hand, through on-the-spot investigations to understand the actual situation of the animation education in Thailand, to be better understood the learning background of Thai students, in order to formulate more reasonable and targeted teaching design. On the other hand, through cross-border academic exchanges, the brand and impact effectiveness of the College of Chinese & ASEAN Arts in Thailand will be further expanded.

V. CONCLUSION

Through the research of the current undergraduate animation professional education program in Thailand, and the analysis of the existing problems, we can see that both the Thai animation education and the Thai animation industry are still in the exploration stage that China has experienced. Therefore, it is of great significance to learn from Chinese experience for the Thai animation which is in urgent need of breakthrough. Under the background of "The Belt and Road" gradually advancing, the gradual popularization of education internationalization, and the re-emergence of Chinese animation, China and Thailand Exchange and Education Cooperation based on the College of Chinese & ASEAN Arts has made a lot of progress in recent years, but there is still need to be improved. It is hoped that this research can provide some useful thoughts for the future development of international

collaborative cultivation of animation talents between China and Thailand.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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