

ESP of New Media Art from Cross-disciplinary Perspective: Goals, Contents and Approaches

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Abstract. With the continuous development of computer technology and the rapid iteration of the media, the term New Media Art also emerged. New Media Art has strong cross-disciplinary attributes, which are mainly manifested in the subject objectives, the course content, and the training path. However, a survey of three universities in Hubei found that the cross-disciplinary characteristics of New Media Art majors in Chinese are slightly weak. Based on this, we should grasp the essence of cross-disciplinary , establish a systematic and complete teaching system for ESP of New Media Art.

1.Introduction

The second decade of the 21st century witnessed the continuous development of computer technology and the rapid iteration of the media, new media such as Weibo, We Chat and Facebook have gradually entered the field of vision. With the help of a variety of hardware and software, traditional art began to appear with new faces in front of people, and the term New Media Art was born and flourished. In order to keep up with this pace, more and more domestic and foreign universities offer New Media Art courses for students in journalism communication, digital media technology or digital media art, even the majors of New Media Art could be found in some universities.

Usually, the professional training program is a combination of multiple course modules or a series of courses, that is to say, the quality of a certain course and the quality of a certain profession is positively related to the final quality of a certain profession. In this sense, only the the teaching of a certain course, the scientific and rational design of its teaching objectives, content and implementation

methods could be studied specifically and totally, the quality of teaching of this course can be really improved, which would ultimately promote a certain profession. For ESP of New Media Art, we have to ask at least three questions, for example, what kind of teaching objectives should be set? What should be taught to students? In what ways should the content be taught?

2. Literature review

Cross-disciplinary is a widely used approach in learning, teaching and research. For many complex issues, many researchers believe that cross-disciplinary can synthesize background knowledge from different disciplines, adopt different research paradigms, and provide different perspectives for understanding. Crews (1998)[1] pointed out that when teaching technology is systematically integrated into a system that supports continuous thinking and learning activities, an “anchor learning environment” (ALE) architecture is needed, which is used for integrated curriculum teaching and learning. The emerging architecture is highly cross-disciplinary. ALE extends the well-established theory of educational practice to the field of computer-aided instruction. The resulting computer support environment helps learners to continue learning and help students understand the existence of complex real-world environments, various issues and opportunities. Jackson, J (2005)[2] collected semi-disciplinary ESP opinions from 45 business school teachers from five colleges and universities in Hong Kong through semi-structured interviews and panel discussions, he found that Chinese students' learning habits are usually poor, their reading and writing skills are insufficient, their ability to solve problems is weak, and they are not willing to express their opinions in the classroom. At the same time, Chinese students not only have differences in teacher expectations, course requirements and assessments, but also vary among sub-disciplines. He believes that in the cross-disciplinary teaching of ESP, teachers should be emphasized, for they could carefully design teaching plans, identify and solve the real needs of students, strengthen the collaboration between different colleges, and fully understand the pre-entry language situation of students. Adams et al. (2010)[3] found that because disaster relief usually involves a number of complex problems that need to span multiple disciplines, it is therefore necessary to develop students' ability to develop problems in a contextual and cross-disciplinary context, often involving research descriptions, data collection, and work to distinguish between group differences. Shabani et al. (2014)[4] used the Coxhead (2000) Academic Word List (AWL) to study 803 papers on ESP teaching research (RA), they found that the use of academic words is high. So they believe that academic vocabulary is related to ESP. It is very important in the academic literature and is essential for language learners. If teachers pay attention to

these academic vocabularies when designing the syllabus, students' writing and reading skills will be better developed. Hronova et al. (2015)[5] conducted brain activity monitoring, heart rate or eye tracking monitoring of college students' learning behaviors in the field of marketing communication research. They found that cross-disciplinary knowledge related to knowledge can optimize the syllabus and enhance students' interest in the profession. Cross-disciplinary collaboration requires the sharing of knowledge, principles, and practical skills within the framework of applied linguistics. But the Emphasis should be placed on second language acquisition, topic preparation, increased memory depth, and enhanced terminology learning. Perez-Llantada (2016)[6] believes that digital technology can change the information acquisition behavior and communication form of scholars. The new multimedia types are multi-modality, hypertextuality and interaction characteristics, which contribute to academic evolution and innovation. He believes that cross-disciplinary dialogue can be used in ethnography, academic/digital literature research and location type analysis and reception research, while in academic English teaching (EAP), special attention should be paid to adopting new types of corpus-based corpora. Language and rhetoric, pay attention to the attention, increase practice, and strengthen critical awareness of type innovation and change. Walker et al. (2018)[7] argued that integrating advanced biotechnology into research laboratories is a challenge for US universities that do not have a PhD grant (non-R1). However, the introduction of microarray technology through an cross-disciplinary approach can help students use mathematics in a biological context.

Obviously, cross-disciplinary can be used as a perspective, as a method, or as a model, it can be applied to social sciences and natural sciences, undergraduate and postgraduate, a profession Practice simulations and essay writing training. Therefore, as one of the important basic courses of New Media Art, how to achieve diversification, differentiation and globalization from the cross-disciplinary perspective of ESP teaching is an inevitable move based on reality and future considerations.

3. Research Method

Since the development of New Media Art is usually less than ten years, Chinese researchers and managers still have not reached a great consensus for it. Therefore, in terms of colleges and universities, different universities not only show different attitudes to New Media Art, but also not consistent with the level of input, their focus, level and type of focus are also different.

The establishment of New Media Art is not uniform enough between schools, which makes it difficulty to research. In addition, through network search and comparison, it is found that the schools

and enterprises cultivated in China's New Media Art are not concentrated enough in the geographical distribution. If all of them are compared, at least there is no comparability in the school.

For the convenience of research, this paper focuses on the colleges of three universities in Hubei Province, they are the School of Journalism and Communication of Wuhan University, the China-Korea New Media College of Zhongnan University of Economics and Law, and the School of Educational Information and Technology of Hubei Normal University. In the research, the content analysis method and interview method are mainly used. The interviewees selected are mainly the college leaders, classroom teachers and students related to digital media technology, news communication and art majors. From the perspective of object distribution, there are 10 college leaders and administrative staff, 20 general teachers and 60 students. In terms of student gender, 20 male students and 40 female students were selected. In the grade, 10 undergraduates, 20 sophomores, and 20 juniors were selected, and 10 graduate students were not graded. The interview methods included telephone consultation, online social tools (QQ, WeChat) communication and face-to-face dialogue. The main modules of the interview are the basic views and suggestions on the ESP teaching objectives, teaching content and teaching methods. The number of interviews questions is 22. On the object of content analysis, the paper focus on the textbooks, teaching methods, teaching methods and teaching modes used by these three colleges in the past three years.

4. The Findings

In China, what is the state of cross-disciplinary attributes in the teaching objectives, teaching content and implementation approaches of New Media Art English? What aspects of its cross-disciplinary characteristics are embodied? What are the main problems at present? An in-depth analysis of the interviews and content will inform us of the current status and reasons, and provide us a basis for further solutions.

4.1 The Teaching objectives need to be constructed cross-disciplinary

According to Bloom's classification of educational goals, the goals of teaching can be divided into cognitive domain, affective domain and psychomotor domain. In the cognitive domain, Bloom divides the teaching objectives into six levels, they are knowledge, understanding, application, analysis, synthesis and evaluation. In the affective domain, goals from low to high can be divided into acceptance or attention, response, value evaluation, organization of values, and character formation. In the psychomotor domain, Bloom only realized the existence of the field of action skills when creating educational goals, and did not set a specific target level. In 1972, Simpson EJ proposed

that the teaching objectives in the field of motion skills are divided into seven levels, namely, perception, set-up, reflection under guidance, mechanical movements, complex external reflection, adaptation, and innovation. In this three areas of cognitive, emotional and motor skills around the teaching objectives, this paper designed eight interview questions. Among them, 1-2 are cognitive domain, 3 to 4 are affective domain, and 5 to 8 are action skill goals:

- 1) Do you think ESP should be the core curriculum of the New Media Art profession?
- 2) Are you more aware of the New Media Art profession after you have studied ESP? Do you know more about the concept, knowledge system, development history and future direction of New Media Art?
- 3) By teaching the existing ESP course, do you think that students can increase their confidence in the employment of New Media Art?
- 4) What professional temperament and professional image do you think should be cultivated in ESP teaching? What kind of professional philosophy should be taught to students?
- 5) Do you think that the learning, application or analysis of new media should get more attention in the existing ESP courses?
- 6) Do you think that the students' imitative ability, adaptability or innovation ability should get more attention in the existing ESP courses?
- 7) What abilities do you think should develop for the students in ESP? Which proportion do you think is greater in listening, speaking, reading, writing and translating? Which is more useful?
- 8) Do you think that the specific operational skills or arrange specialized internship practice sessions should be taught in ESP? For example, computer and Internet practical skills? Media production practical skills? Painting production ability? What operational training was involved in the teaching you accepted?

The interview results show that, on the whole, the teaching objectives of the ESP of New Media Art can reach a medium level in design, and only a few can reach the highest level.

In the cognition domain, most of the teachers and students believe that, as a new subject, ESP should be viewed as the core curriculum of the New Media Art major. At the specific cognitive level, most students said that, Whether professional understanding became clearer, and the concept, knowledge system, development history and future direction of New Media Art could be better understood.

However, most students believe that the existing ESP courses pay more attention to the understanding and application of new media. Instead of analyzing, synthesizing, and evaluating, many teachers said, "In fact, it is very difficult for us to help students learn to integrate and evaluate problems," or to avoid or default on this issue. The limitations of objective school time are also affected by the lack of subjective experience of teachers and the limitations of professional vision.

In the affective domain, most teachers and students believe that the professional temperament and professional image that should be cultivated in ESP teaching, especially "poetics of liberal arts students and the freedom of artistic students". As for the professional philosophy taught to students, they believe that the current emotional factors in ESP are not obvious. In ESP teaching, they pointed out that "The employment confidence in New Media Art must to be enhanced firstly", and secondly, "Sensitivity to social events and social responsibility" should be enhanced. In their view, interest and responsibility are the core of the professional ethics of New Media Art practitioners, and they are the biggest motivation to encourage them to persist in the industry or cultivate the "Artisan Spirit". In the existing training target design, these affective elements have yet to be added. In the field of psychomotor domain, the responses of teachers and students are basically the same. Most ESP teachers realize that the current curriculum pays too much attention to training students' imitative ability and adaptability, and the emphasis on innovation ability is obviously insufficient. In this regard, they believe that in the design of follow-up teaching objectives, it should focus on how to help students to "keep critical."

In terms of the psychomotor domain, most of the teachers pointed out that ESP should comprehensively develop students' ability to listen, speak, read, write and translate, but this is usually written as the goal of the school year or semester, because "The school year plan and the semester plan are mainly used to cope with the check from above, so they are designed as ideal as possible." Therefore, in each class, most of the teachers find that the possibility of reading and writing goals is greater, but the goals of listening, speaking and translating are difficult to achieve. In practice, most teachers and students believe that ESP should teach specific operational skills and arrange specialized internship practice sessions, such as computer and Internet practical skills, practical media production skills and hand-painting skills. However, these skills are light. Relying on ESP teachers is more than enough, because "In the implementation of teaching, the teachers often need the support of multiple teaching and research departments and school teaching equipment management departments, but the management process is very complicated, so only one teacher could not complete them", therefore,

both teachers and students expect to gain more autonomy and control more resource power in the classroom.

4.2 The Teaching content needs to highlight cross-disciplinary characteristics

The teaching content mainly involves the selection of teaching materials, the design of teaching modules, the presentation of classroom content, the arrangement of difficulties and the development of learning resources. In this regard, eight questions were designed as follows in this paper:

- 1) What subject knowledge do you think ESP should cover? Is ESP learning content more focused on which module of the subject at present?
- 2) Do you think ESP teachers should have new media experience?
- 3) Can the ESP teachers bring their new media work experience into the classroom?
- 4) In the course of study, does the teacher consciously guide or ask the students to strengthen the study of a certain skill in listening, speaking, reading and writing, or a module of computer, news media and artistic creation? Do the teachers require balanced development and knowledge linkage on the skills and knowledge modules?
- 5) Could the textbook and learning resources the teachers selected reflect the latest era characteristics of new media, can they synchronize with the development of the times?
- 6) Do the teachers choose the materials and learning resources that fully take into account the student's professional interests and future choices? In what ways is this content reflected? Works creation, computer and internet software and hardware design?
- 7) Do the teachers choose a learning resource that focuses on paper materials or online resources? What about the domestic resources and foreign resources?
- 8) Are the learning resources you choose to be developed independently by university teachers or jointly developed by Internet companies and universities?

The researcher found that the teachers and students of the three universities have different views on the content of English teaching in New Media Art. In terms of content arrangement, most people believe that the subject knowledge involved in the ESP of New Media Art should be as wide as possible, because the New Media Art is not only the product of technological progress, but also the result of social changes.

On specific modules, each university is generally designed according to the existing faculty and professional expertise of the relevant colleges. For example, the School of Journalism and Communication pays more attention to the content of news dissemination, while the School of Educational Technology and Information attaches more importance to audio and video editing, the overall structure of the work. It is gratifying that most teachers and students believe that ESP teachers should have new media experience or work experience. However, some teachers said, “Although we do not have this experience ourselves, we are trying our best to learn from others.” However, this kind of teaching is not intuitive, which in turn increases the difficulty of understanding for students.

As far as the professional learning process is concerned, most students say that the instructors will guide or ask them to strengthen their study of listening, speaking, reading, writing and translating a certain skill, and also emphasize a certain module of computer, news media and artistic creation. The importance of learning, however, how the English skills and expertise modules achieve balanced development, how to form internal linkages, most teachers and students cannot give clear answers. Since the learning resources involved more content, four questions were designed in the interview outline.

In the choice of intention, most teachers and students believe that the textbooks of ESP of New Media Art should reflect the characteristics of the latest era as much as possible, and should try to keep pace with the development of the times. "It is the best choice to use paper materials. At least it is convenient for superiors. When you come to the classroom, at least the students have something to do at all". In fact, these universities use more paper materials than electronic textbooks. However, due to the limitations of the domestic textbook publishing system, the publishing speed of paper textbooks is still need to be promoted, in most cases, the informal form of learning content is used, for example, teachers answered, “Most of the time we make courseware ourselves or go online to download the latest published papers and ask students to read them”; Not only that, most teachers have no time or energy to collect and organize resources, let alone effective sharing.

In terms of the satisfaction of students' needs, most teachers said that they would try their best to consider the students' professional interests and future choices in the process of selecting teaching materials and learning resources. They could try to choose resources that combine the creation of works, computer and Internet software and hardware design. However, unfortunately, most teachers rarely know the professional background of the students in advance, and do not conduct a comprehensive investigation of their future employment choices, as one teacher said, “We have no

channels to obtain the students' previous information. We also have no responsibility or obligation to do this". Most students believe that there is still a big gap between the content presented in the classroom and their career planning, and their ability to grasp the difficulty of the classroom is not satisfactory.

4.3 The Teaching strategies need to present cross-disciplinary features

The teaching strategy mainly involves three aspects: teaching methods, teaching modes and test forms. Therefore, six questions were designed in the interview, they are follows:

- 1) Does the college's professional teachers invite Internet industry practitioners to attend classes or make lectures for the students? What are the major components of these lectures that involve ESP ?
- 2) Could the ESP teacher pay more attention to reading teaching, oral communication training or translation training?
- 3) Do the college arrange any British and American born teachers in the ESP class? If they do ,what skills do they mainly teach students?
- 4) Do the Chinese students communicate with foreign students or students from foreign universities in ESP? What are the forms of communication? Mail, mobile phone, or face to face?
- 5) In the ESP learning format, which one is more used? lectures, debates, speeches, English corners and MOOCs ? What role does the teacher play in it? Is the teaching activity effectively organized? Can students' enthusiasm and potential be fully tapped?
- 6) In terms of teaching evaluation, which form of written and oral test is used more? What is the approximate proportion of subjective and objective questions? Are there any mandatory requirements for writing professional papers?

From the actual situation of the interview, in the ESP teaching, the Zhongnan University of Economics and Law usually invited the Internet enterprise practitioners to attend classes or make lectures every semester. The other two schools usually make this in two to three years. However, the universities directly belong to the Ministry of Education of China are more qualified than provincial universities to arrange English and American teachers to participate in ESP teaching.. "Because these cities are often the preferred destinations for British and Americans," The skills taught by foreign teachers are still based on daily life, and the exchange of professional knowledge still needs to be strengthened.

From the perspective of teaching methods, most students told the researcher that teachers in the department frequently use reading and translation training in the classroom, and the proportion of oral training and audio-visual training is small. Reading or translation learning may be more suitable for art or computer modules, but to the production of works, the oral training required for news dissemination is not taken seriously. Many students think that “The students who can understand the original movies and TVs wants to go abroad. So the professional learning is not needed to at present, because we generally use online translation tools.” As for international exchanges, most students said that although the school recruits international students in the major of computers, journalism and art every year, but there are only opportunities for daily communication. Moreover, this kind of communication lacks organizational and institutional guarantees. Therefore, most exchanges still remain at the level of general life dialogue. If the school or college could carry out interactive activities related to professional learning which Chinese students and international students could both attended, it will be very popular among students.

Of course, the interview found that a small number of students who intend to go abroad can actively use e-mail or mobile phones to communicate with foreign university-related professional students, but the students expect to get more opportunity to make face-to-face exchanges with foreign students on campus or study as exchange students in foreign universities for short-term. “It is more formal, and the task is more clear, the communication is more motivated.” In the form of classroom teaching, among lectures, debates, speeches, English corners and MOOCs, the students said that MOOCs are slightly common, and several other forms are rarely used. As for the teaching evaluation method, there are professional papers written in general but no mandatory requirements. Most teachers believe that “Writing English papers is tantamount to murder for most non-English majors, even College English Four Levels are difficult to many of the students.” As for the propositional form of the test, the researchers found that the number of objective questions on the test paper is more than subjective. On the whole, the knowledge integration and innovation are seriously lacking, and the students' enthusiasm and potential have not been effectively played.

5. Conclusion

The employment usually runs through the whole process of talent cultivation, but the direction of talent cultivation is generally determined by the market. From the content and final orientation of the talent training program, the New Media Art is cultivated as designers or artists and entrepreneurs. These graduates should be able to meet the industries of film, television, video games, computer

software and hardware and network vision. The various influencing factors are behind the needs of a diverse and expanding job market, but interdisciplinary is at the heart of these factors.

For this reason, this paper attempts to find out whether the ESP of New Media Art in universities in China are cross-disciplinary through interviews with several teachers and students in three universities in Hubei Province and text analysis of relevant websites. Unfortunately, surveys and interviews show that the cross-disciplinary characteristics of these new media majors or courses are clearly insufficient to meet the needs of market.

Combining the results of the survey interviews with the research results of foreign media in the field of New Media Art, it can be foreseen that the interdisciplinary features of ESP in New Media Art must be strengthened rather than weakened; otherwise the construction of the New Media Art professional curriculum system would be severely constrained. To this end, the cross-disciplinary nature should be fully utilized, and various human resources, financial resources, material resources and other resources should also be taken seriously. Only in this way, could the cross-disciplinary teacher communities, industrial cooperation, and students' professional qualities be able to formed into a system, which would help to make the New Media Art teaching system more systematic.

Due to the geographical limitations and the narrow coverage of the texts and interviews, it is impossible for the researcher to cover all the universities in China that have New Media Art. In this way, it is caused that the ESP teacher structure, teacher accomplishment, the content course modules, the specific textbook selection and other information of ESP cannot be described in this study. With regard to these issues, as New Media Art is valued by more and more universities, the information of ESP courses and teaching systems of New Media Art will be noticed by more and more researchers. In a word, the more extensive the research, the more the results would be.

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References

- [1] Crews, T. R. J. . (1998). Instructional technology for cross-disciplinary learning. *Frontiers in Education Conference*. IEEE.
- [2] Jackson, J. . (2005). An Inter-University, Cross-Disciplinary Analysis Of Business Education: Perceptions Of Business Faculty In Hong Kong. *English for Specific Purposes*, 24(3), 0-306.
- [3] Adams, Robin S.; Beltz, Natalie; Mann, Llewellyn (2010) . Exploring Student Differences in Formulating Cross-Disciplinary Sustainability Problems. *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION* .26 (2) , 324-338.
- [4] Shabani, M. B., & Tazik, Khalil. (2014). Coxhead\'s awl across esp and asian efl journal research articles (ras): a corpus-based lexical study. *Procedia - Social and Behavioral Sciences*, 98, 1722-1728.
- [5] Hronova, Stepanka; Rosenlacher, Pavel(2015).A Cross-Disciplinary Approach: Esp Instruction and Implementation Of Neuromarketing Methods as Curriculum Innovation. 10th Disco Conference on Analog Education to Digital Education , Inst Cryptoanarchy, Prague, CZECH REPUBLIC .FROM ANALOG EDUCATION TO DIGITAL EDUCATION .179-186 .
- [6] Perez-Llantada, C (2016). How Is The Digital Medium Shaping Research Genres? Some Cross-Disciplinary Trends. *ESP Today-Journal Of English For Specific Purposes At Tertiary Level*.4(1) , 22-42.
- [7] Walker, D. E. , Lutz, G. P. , & Alvarez, C. J. . (2018). Article development of a cross-disciplinary investigative model for the introduction of microarray techniques at non-r1undergraduate institutions. *Cbe Life Sciences Education*, 7(1), 118.