

# THE APPLICATION OF MOOC FOR CAREERS GUIDANCE OF YEAR 3 UNIVERSITY STUDENTS IN HEILONGJIANG PROVINCE, CHINA

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#### Thesis entitled

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was submitted in partial fulfillment of the requirements for the degree of Master of Education in Curriculum and Instruction

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#### **Abstract**

This mixed methods research compared Year 3 university students' learning achievement before and after the use of MOOC and examined their attitude towards the use of MOOC in a Careers Guidance course in Heilongjiang Province, China. The sample group consisted of 30 students who enrolled in a Careers Guidance course in 2021 Academic Year. Quantitative data and qualitative data were collected applying four lesson plans, pretest, posttest, questionnaire, and focus group interview. The quantitative data were analyzed using mean, standard deviation as well as Paired Sample T-Test. The qualitative data were analyzed using thematic analysis.

The results showed that after the use of MOOC, the students' posttest score ( $\bar{x}$ =52.20, SD=13.21) was higher than that of the pretest score ( $\bar{x}$ =35.67, SD=14.04), resulting in the significant mean difference of 16.53 points. The data from the questionnaire revealed that the average mean score of all items was rated in a high level ( $\bar{x}$ =3.44, SD=0.74). The students' responses from focus group interview suggested that the students had positive attitude towards the use of MOOC in a Careers Guidance course. Therefore, the use of MOOC may be considered as a new effective way of teaching and learning a Careers Guidance course in the university in China.

(Total 153 pages)

Keywords: MOOC, Careers Guidance courses, Students' learning achievement, Students' attitude

Student's Signature......Thesis Advisor's Signature.....

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#### CHAPTER 1

#### **INTRODUCTION**

This chapter explains the background and rationale of the study; research objectives; research questions; research hypothesis; scope of the study; conceptual framework of the study; operational definitions; expected outcomes of the study, and limitations of the study.

# 1.1Background and Rationale of the Study

It is a new era in which mankind has entered the era of a global information society. It has also brought revolutionary changes to education (as cited in Pappano, 2012). As multimedia technology matures and becomes more popular, its application in network teaching is becoming more and more popular, and it has become an integral part of computer teaching.

As technology and the World Wide Web have rapidly developed and expanded, they have profoundly changed the way we think about education, how we teach, and how we learn. As the information superhighway took off in the 1990s, information technology was introduced into education. In September 1993, the United States proposed the construction of the National Information Infrastructure (NII), commonly called the "Information Superhighway," in an attempt to develop an integrated service system based on the network and promote widespread adoption of information technology. One of the best ways to reform education in the 21st century is by using online video education. As a result of the United States' move, a number of countries around the world have developed plans to implement web-based video education (Hone & El Said, 2016).

Since the mid-1990s, Chinese society has rapidly adopted and introduced network technology, and its development has become closely bound with information technology. Recently, a proposal was made for integrating information technology into social life. Furthermore, the integration of information technology into education began at the same time as the reform and development of education. As Liu (2013) points out, computer education, technology education, computer shop-assisted education, and distance learning make up the bulk of China's information technology in education.

With the development of information technology and the diversification of learning methods, higher education is no longer limited to traditional school education, but will involve more and more learning through the Internet in the future, which means more quality resources for learning. The core concepts of OCW are "openness" and "sharing," which maximize the value of educational resources, allow resources to be reorganized or modified according to individual needs, and focus on the sharing of resources (as cited in McAuley, Stewart, Siemens, & Cormier, 2010).

While the initial distance education could only achieve one-way video recording and on-demand, MOOC platforms such as Cousera can record teaching videos and also include online Q&A, student forums, virtual interaction between teachers and students, and assignment grading systems (through software or other students).

It can be defined by the Oxford Dictionaries as a Massive Open Online Course (MOOC). A MOOC is a learning course that is freely accessible to a large number of people via the Internet and can be taken by anyone by logging on to a website and registering (as cited in Dictionaries, 2013).

The main characteristics of MOOC (Massive Open Online Courses) courses are massive, online, and open. The so-called massive is expressed in the unlimited number of learners, whereas traditional courses have only a few dozen or a few

hundred students. Unlike traditional courses that have only a few dozen or a few hundred students, a MOOC course can have hundreds, or even tens of thousands of learners. The so-called open means open to all, and learners around the world can take quality courses as long as they meet the Internet access requirements. The so-called online means that the learning task is mainly completed online, not restricted by time and place (Waldrop, 2013).

The massification of education is an inevitable choice for the development of higher education, which is also the successful experience of western developed countries; however, the shortage of higher education resources and insufficient supply are the main reasons that restrict the development of higher education equity in China, higher education equity is a high level of educational equity, and the comprehensive development of MOOC provides a certain solution for higher education equity (Tian & Zhang, 2012).

At present, Chinese educational institutions have also invested in large-scale online open courses, and a large number of online education course projects have emerged. After the national high-quality courses and university online open courses, Chinese universities have also planned to launch their MOOC courses at Peking University, and in 2012, the Shanghai University Course Alliance has also realized the exchange of high-quality courses among Shanghai universities and can obtain school-recognized certification. In 2012, the Shanghai University Course Consortium also realized the exchange of high-quality courses among Shanghai universities and could obtain credits recognized by the schools.

In May 2013 Tsinghua University and Peking University joined the edX learning platform at the same time, and in July Shanghai Jiao Tong University and Fudan University signed a contract with Courser to join the MOOC platform. At the same time, Tsinghua University, Peking University, Fudan University, Zhejiang University, Tongji University, Dalian University of Technology and Chongqing University jointly established a Chinese MOOC network, and five transportation

universities including Shanghai Jiao Tong University and Hsinchu Jiaotong University jointly launched an online learning consortium as their open course learning platform and provided free learning opportunities to Chinese learners, and in September, the East-West University Course Consortium will be opened to the public. MOOC is developing rapidly in China (Cai & Wang, 2012).

A broader perspective, in terms of facilitating learning, the openness of MOOC allows students to easily and quickly find the highest level of courses in various disciplines around the world (as cited in Wang, 2013). Even for the same topics, courses from different universities can be compared and integrated to analyze the differences, which helps students understand the course content more deeply and comprehensively. At the same time, students can also take other related courses according to their interests or development needs, helping to build a more complete body of knowledge that is difficult to achieve with a traditional university education.

A MOOC is a way of learning that is more flexible since it does not require students to study at a fixed time and place with fixed numbers of classmates (as cited in Li & Wang, 2012). It is possible for students to overcome place and time limitations and learn self-help according to their own situation (as cited in Liu, Chen, L., Shi, & Chen, H., 2010). They can watch the videos again and again if they don't understand something; they can repeat the exercises they made mistakes on; they can skip the boring parts of the lesson and focus on what's important to them; and they can discuss course-related issues with students all over the world, thus improving their learning efficiency (Greene, Oswald, & Pomerantz, 2015).

Promoting competition in teaching and learning: From the perspective of education, MOOC can effectively and fairly promote competition (Huang & Lan, 2020). In the context of openness, quality courses will quickly stand out, while courses with old ideas and outdated methods will be eliminated, which on the other hand, motivates teachers to work harder to improve their teaching and promote the reform of teaching.

The MOOC provides real-time data collection, accumulation, and analysis of a large number of students' learning processes, which provides a better way to optimize the learning process. The MOOC website records the whole process of students' learning, such as repeatedly watching video clips, repeatedly making mistakes in exercises, and comparing the length of learning time for each knowledge point. Through the analysis of data and its further mining, students' mastery of knowledge, experience, and familiarity with skills can be analyzed in depth, which also lays the foundation for providing more targeted guidance according to individual differences.

China has seen the emergence and rapid development of Internet companies with online courses as their core since 2012. Massive open online courses (MOOC) provide learners with a new channel of knowledge acquisition and learning mode, becoming a new way for people to learn in the Internet era (Deng, Li, Chi, & Tan 2013).

When it comes to educational innovation and development, MOOC have shown to be a productive and positive endeavor on the part of educators (Reichert, 2006). Knowledge and answering questions aren't the only aspects of education, but it's also about helping students develop the interpersonal skills they need in today's increasingly divided society. Traditional education excels at this. Education professionals have been hired to teach MOOC, which has increased the demand for teachers. There is a lack of interaction between teachers and students in online courses, which necessitates the creation of innovative teaching methods, tailored instruction, and psychological counseling by teachers for students. To a certain extent, this means that MOOC can't really replace traditional teaching techniques, but can only improve the education business in a complementary manner.

The history of the MOOC dates back to 2007, when D. Wiley of Utah State University proposed the prototype MOOC (as cited in Pisutova, 2012). By 2008, D. Cormier of the University of Prince Edward Island began using the concept of a

MOOC to describe a course offered by G. Siemens and S. Downes of the University of Manitoba to 25 students that was also open to the public (as cited in Mehaffy, 2012). Then, MOOC began to gain popularity. in 2011, two courses offered by Stanford professors S. Thrun and P. Norvig had 90,000 and 160,000 students enrolled, bringing the MOOC to its zenith.

Some university professors who have worked in the Ivy League and large institutions have started to collaborate on MOOC or set up their own MOOC technology provisioning platforms, such as edX, Khan Academy, Courser, MIx, Udacity (as cited in Mahraj, 2012).

In 2012, 10 UK universities led by the Open University announced the formation of Futurelearn's first non-US MOOC consortium (as cited in Cook, 2012). University of New South Wales is the first Australian university to launch its own MOOC (as cited in Dodd, 2012).

In addition, the University of Southern Queensland, Deakin University, University of Tasmania, and Western Australian Universities have also undertaken related practices or expressed a desire to do so (as cited in Rowbotham, 2013).

In March 2013, the Open University of Australia (OUA) community announced the launch of its own MOOC platform, 0pen2Stud. The European Association of Distance Learning Universities (EADTU) has also announced a Europe-wide MOOC initiative. The new MOOC platform, "Openuped," was officially launched in April 2013, and its partners include universities in Turkey, Israel, and Russia (as cited in Rosewell & Jansen, 2014).

On the contrary, traditional classroom teaching in various countries is delivered face-to-face by teachers in our schools, and many schools are unable to hire good teachers from other schools to teach due to the cost of teaching, which may result in certain schools not learning certain good lessons.

But with the MOOC, perhaps some colleges and universities could move away from having a department for teaching public foundation courses and instead allow students to take public courses offered by teachers at other schools through the MOOC. This might solve the professional development problem of non-core course teaching staff, and also allow school organizations to focus more on their core business. Universities in Shanghai, China, have launched a Chinese MOOC: organized by the Shanghai government, several local universities have joined together to establish the Shanghai Universities Course Resource Sharing Management Committee to accelerate the opening of high-quality courses from each school to students from other universities. These schools no longer have a public basic teaching department, allowing students to take relevant courses through the MOOC platform and also to take similar courses from other schools simultaneously via the Internet; for example, the students from multiple universities can take a public course on "Situation and Policy" from one university online together (as cited in Sun, Zheng, & Chen, 2016).

The emergence of the MOOC has prompted a change in the classroom teaching model. With the help of MOOC and other online courses, ordinary colleges and universities can offer classes that were not available before or of poor quality, integrate innovative teaching modes with traditional classes, or several colleges and universities can jointly form a teaching community, with teachers lecturing in one school and students scattered in other schools to listen to the lectures simultaneously, and then obtain credits through official or university-organized examinations, which may really realize teaching and examinations to some extent. This flexible approach to course selection and learning provides great freedom for students to develop their creativity (as cited in Zheng, Li, & Chen, 2015).

MOOC is not only about sharing quality resources from outside the campus, but also about organizing The Flipped Classroom with MOOC resources, which will completely change the traditional way of teaching in the classroom. Under the Flipped Classroom teaching model, students complete their initial learning at home through MOOC learning, come to class to do homework and discuss with everyone to achieve

the purpose of consolidating learning, and to a certain extent, can also promote educational equity, but also to achieve a fundamental innovation in the classroom teaching model (Jin, Ying, & Bao, 2012).

Teachers are a key factor in ensuring the quality of teaching in schools, and in a MOOC teaching environment, bad teachers are in danger of being eliminated. MOOC can be used by hundreds of thousands of people to learn together at the same time, which is unreachable by traditional classroom teaching, and this teaching method requires the main teacher to have several assistant teachers to complete some work such as teaching design and courseware. In the MOOC era, teachers may no longer be the traditional image of a single teacher, the teacher group will be more diversified, specialized and professional, among which there have lead teachers, tutors, teaching assistants, and even experts in teaching design, courseware design and teaching resources. Only with the cooperation of such a teaching team composed of multiple roles can a better teaching effect be achieved, and one person cannot complete a MOOC. MOOC teachers and teaching assistants have very important roles, they have to focus on the course they are responsible for, and they have to consider the actual situation of online learning, the psychological characteristics of online learners, choose appropriate teaching strategies, arrange appropriate course content, create course descriptions, and provide detailed answers to the difficult questions asked by learners in the forum (Bishop & Verleger, 2013).

Therefore, the school should train both expert and competent teachers who can deliver lectures on the MOOC platform and a team of teaching assistants for MOOC platform learning, who are required to be familiar with the skills of acquiring information and guiding online learning, maintaining online teacher-student interaction, question-answer and discussion activities, and giving timely feedback to the questions raised by students.

Since currently there are a number of learners on the MOOC learning platform, a large amount of data will be generated in the learning process. By

analyzing this massive amount of data through data mining technology, the learning behaviors and patterns of learners can be developed. With the help of technologies such as big data and learning analysis, it is possible to analyze the massive learning process data, discover the laws hidden behind the data, and give students targeted learning suggestions, as well as keep track of students' learning status and provide timely feedback and guidance and push excellent learning resources, which can continuously improve MOOC teaching content and teaching process design, and truly realize personalized teaching on the MOOC platform. Through big data analysis, we can develop more reasonable teaching strategies and change the traditional teaching method of relying solely on empiricism to educate students. In addition, we can check students' browsed forum posts and their completion of extra-curricular assignments to predict and judge the correct rate of students' answers to questions, and then compare and analyze these results to push appropriate learning resources to students (Knight & Shum, 2017). MOOC promote equity and the massification of higher education. Currently, MOOC are mainly offered by leading universities in various countries, either alone or in partnership with companies. These free, high-quality online courses in higher education enable many people whose families are poor and cannot afford to pay tuition fees to receive a quality education. The free model of MOOC provides equitable access to education, gives more people equal rights to education, and promotes the mass development of higher education. This improves the quality of the workforce and promotes economic and cultural development. The development of MOOC accelerates the transformation of higher education from elite education to mass education (Ping, 2013).

MOOC promote groundbreaking innovations in learning styles and methods. The choice of advanced educational technology tools and media has now become the mainstream of teaching and learning. The integration of new technologies with traditional teaching models has improved the efficiency of teaching and learning as well as provided more convenient teaching and learning services. In the MOOC model, students only need to rely on the Internet, computers or other Internet access devices to participate in learning instead of following the traditional rigid lecture schedule and

concentrating on traditional classrooms within a specified period of time. Many people who are unable to access education due to time and geographical issues can arrange their study schedule according to their own situation. In addition, the MOOC model includes both lectures and testing sessions, and participating learners can interact and quiz with the instructor and other students through social networking, email, timely communication, and other software tools. Compared with the previous online education of watching multimedia courseware and course videos alone, MOOC place more emphasis on students' personalization and independent development, which is conducive to fostering students' subjectivity. MOOC provide diverse knowledge services and meet diverse higher education needs (Subbian, 2013).

MOOC promote the internationalization of higher education. In the past, studying abroad and exchange visits were usually required in order to receive international higher education. Today, MOOC provide a global, open educational platform that allows people to receive international higher education without having to leave home. The educational philosophy, educational content, educational cooperation and educational resources of MOOC courses currently offered have all been internationalized. Compared with traditional university courses, MOOC each focus on the internationalization of course structure and content. In addition, the online interaction between students and teachers and students cultivates students' international perspective and global awareness, and improves students' ability to communicate across cultures and international competitiveness (Hegyesi, Kártyás, & Gáti, 2018).

At the moment, traditional means of college education and degree attainment continue to be the most popular options. When compared to MOOC, the traditional classroom provides a number of distinct advantages. The most significant distinction between conventional teaching and online teaching is in face-to-face delivery, where teachers can alter the teaching pace and delivery methods in a mobile and flexible manner in response to the actual situation of students in a traditional classroom setting. Communication and interchange between teachers and students at

the appropriate time, as well as focused Q&A, not only assist to excite students, but they may also considerably improve the effectiveness of instruction. In comparison to MOOC, traditional education style makes it simpler to build interpersonal networks, social contact, and engagement between teachers, students, and other students in the real world, and to stay in touch with one another even after the course has ended. With fewer pupils in the conventional form of instruction, teachers become better acquainted with their students and are able to personalize their instruction to meet the needs of each student on an individual basis. As a result, MOOC will be available in the school system as a supplement for a limited period of time (Wu, 2013).

The Careers Guidance courses are mandatory courses in Chinese universities that have been established by the Chinese Ministry of Education. Here all students are required to take and pass an exam before they graduate. The purpose of the course is to help college students make the transition from student status to job seeker status (as cited in Yao, 2019).

Through the teaching of the Careers Guidance courses, college students cannot only gain a basic understanding of the characteristics of career development, a clearer understanding of their own strengths, the characteristics of the major, and the social environment, but also gain an understanding of the current employment situation and policies and regulations.

Generally, in the school's Careers Guidance courses, students are required to master the ability of self-awareness, the ability of information gathering and planning their own career, the ability of job interviews, etc. Through the course, students will also improve various general skills, such as communication skills, problem-solving skills, self-management skills, and interpersonal skills (Chen & Ben, 2017)

Traditional offline classroom Careers Guidance teaching often has had many problems, the most prominent of which is the difference between the classroom content and the actual objective environment. Of course, since the social environment is constantly changing and the teaching materials in schools cannot keep pace with the speed of social changes, the problem of course content lagging behind will occur. For example, it has become popular to use apps on phones for resume submission, while school textbooks still teach students to go to the job market for resume submission.

From this perspective, MOOC may be an excellent way to address the issue of offline career guidance classes. To begin with, MOOC will be enormous online classrooms with often updated course materials, allowing schools to select the most relevant course for current students to use as teaching material. This can assist students in comprehending the job climate and policies of different regions, which can serve as a reference for students interested in working in other locations. While MOOC may reduce communication between students and professors, career guidance courses demand more employment information and the most up-to-date and detailed employment information. MOOC can also be an excellent way to address this concern. (Zhang, 2017) say that standard online career counseling courses don't include any of these things.

Based on the information presented above, the purpose of this study is to employ a MOOC to enhance the teaching and learning experience for a career guidance course at Heihe University in Heilongjiang Province, China. According to the researcher, who anticipates that using MOOC as a learning tool in this course will result in a positive attitude toward using MOOC as a learning tool among Year 3 students, The researcher expects that this study will provide some insight into the usage of technology (MOOC) in learning and teaching, which will ultimately result in more effective teaching and learning results across the board.

# 1.2 Research Objectives

1.2.1 To compare the learning achievement in a Careers Guidance course before and after the use of MOOC by Year 3 university students in Heilongjiang Province, China.

1.2.2 To examine Year 3 university students' attitude towards the use of MOOC in a Careers Guidance course in Heilongjiang Province, China.

# 1.3 Research Questions

- 1.3.1 Would the Year 3 university students' learning achievement in Careers Guidance course in Heilongjiang Province, China be higher after the use of MOOC?
- 1.3.2 How would Year 3 university students' attitude towards the use of MOOC in a Careers Guidance course in Heilongjiang Province, China be like?

# 1.4 Research Hypothesis

Year 3 university students' learning achievement in Careers Guidance course would be higher after the use of MOOC in Heilongjiang Province, China.

# 1.5 Scope of the Study

This study was conducted within a scope as being described here. Therefore, generalization of the results must be undertaken with caution, especially in the contexts of different educational levels and with the use of different research instruments.

Firstly, this study was conducted at Heilongjiang University in Heilongjiang Province, China. Furthermore, data were collected exclusively from the third-year university students through achievement tests, questionnaire and focus group interview.

Secondly, the teachers in China received a Handbook on Careers Guidance course, which included the exercises and the manuals for teaching. However, they were free to develop and implement their own teaching and learning materials according to the students' requirements. Following this study, the researcher wanted to

suggest that students use MOOC as a learning source to help them improve the careers guidance course achievement and their attitude towards the use of this teaching and learning tool in the course.

#### 1.5.1 Location of the study

The study was conducted at a university in Heilongjiang Province, China. The school was a university with 11,000 students and 876 teachers. The university was located in an urban area. Figure 1.1 below shows the location of the study school.



Figure 1.1 Location of the Research School

Source: Baidubaike, 1938

# 1.5.2 Population and sample

Population: The target population of this study consisted of 90 Year3 students from three classes in the University in Heilongjiang Province, China. They ranged in age from 19 to 22 years old with mixed genders and Careers Guidance achievement.

Sample: The researcher used a clustered random sampling method to select one class (N= 30 students) from a population of three mixed-ability classrooms of

Year 3 university students. The sample included the students with mixed genders and abilities in Careers Guidance achievement.

#### 1.5.3 Time frame

The study was conducted during the first semester of the January 2022 academic session. The experiment lasted for four weeks and the course was run twice a week. A total of eight 50-minute lesson plans were formulated. As shown in Table 1.1, the study was conducted over a period of one year as follows.

Table 1.1 Timeline of the study

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Literature												
Review												
Research												
Proposal												
Data												
Collection												
Data												
Analysis									1/6			
Report	2	9										
Writing		225							70			
		12	20					110				
Final			(4)	2			محأ					
Defense			167	EITY	สิต	Ra'	UAS					

## 1.5.4 Content of lesson plans

For the study, the researcher selected four MOOC instructional videos for the study with eight lessons of 50 minutes each. The MOOC videos were also be selected based on the following criteria: age and student interest, length of the video, the student's region of employment, and the content of the video. In addition, the lesson contents were selected based on the topics and objectives outlined in the Careers Guidance syllabus used in the research university (Careers Guidance, 2009). Table 1.2 below provides an overview of the courses.

Table 1.2 Elements of the study

Lesson Plan	Theme	Date/Time		
Lesson	Session 1: MOOC video on "Career and Self"	2022.1.29		
plan1	Session 2: MOOC video on "Career and Self"	2022.1.30		
Lesson	Session 3: MOOC video on "Understanding	2022.2.5		
plan2	Careers in Depth"			
	Session 4: MOOC video on "Understanding	2022.2.6		
	Careers in Depth"			
Lesson	Session 5: MOOC teaching video on	2022.2.12		
plan3	"Professional Literacy Enhancement"			
	Session 6: MOOC teaching video on	2022.2.13		
	"Professional Literacy Enhancement"			
Lesson	Session 7: MOOC video on "Career Decision	2022.2.17		
plan4	Making"			
	Session 8: MOOC video on "Career Decision	2022.2.18		
	Making"			

# 1.5.5 Independent and dependent variables

In this study, the independent variable consisted of MOOC teaching with videos, and the dependent variables included students' learning achievement in Careers Guidance course and their attitude towards using MOOC for Careers Guidance course. The independent variable, MOOC teaching with videos refered to the course content itself; the dependent variables, learning achievement in Careers Guidance course refered to the students' pretest and posttest scores, and the students' attitude towards using MOOC for Careers Guidance course refered to the students' questionnaire results and focus group interview results.

# 1.6 Conceptual Framework of the Study

In this study, the independent variables consisted of MOOC teaching with videos, and the dependent variables included students' learning achievement in the Careers Guidance course and students' attitude towards using MOOC for Careers Guidance course. Figure 1.2 illustrates the conceptual framework for this study.

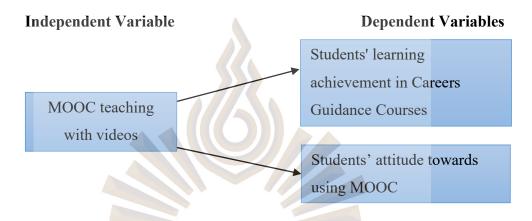


Figure 1.2 Independent Variable and Dependent Variables

## 1.7 Definition of Terms

**MOOC** teaching videos

In 2012, top universities in the United States have set up online learning platforms to offer free courses online, and the rise of three major course providers, Coursera, Udacity, and edX, has given more students the possibility of systematic learning. The courses of these three big platforms are all aimed at higher education and have their own learning and management systems just like a real university. Further, their courses are all free. MOOC is to be applied in a Career Guidance course at Heihe University in Heilongjiang Province, China. In a traditional class, students often use outdated employment information because textbooks are often not updated in a timely manner, but the content of career guidance courses changes very quickly

and requires rapid changes in lecture content. Using a MOOC can be a good solution to this problem.

## Year 3 university students

The third-year university students at Heihe University in Heilongjiang Province, China are a group of people who are receiving basic and professional higher education and have one more year to graduation. They enroll in a Career Guidance course as a requirement of the program.

# Students' attitude towards using MOOC for Careers Guidance

Students' attitude towards using MOOC for Careers Guidance include the learning atmosphere in the classroom, the use and practice of career skills, and the teaching performance by the instructor. This will be investigated by using 5-points Likert scale questionnaires and focus group interviews. The questionnaire will consist of 15 questions, including questions about students' satisfaction with using the MOOC for lectures, the richness of the course content, and whether it is helpful for employment. The focus group interviews consist of six questions that are grouped into three main categories: Part A: interest and motivation; Part B: attitude toward using MOOC in education; and Part C: quality of the course.

#### **Big Data**

Big data refers to information that is so large that it cannot be extracted, managed, processed, and organized in a reasonable amount of time to help make business decisions in a more proactive manner by using the current mainstream software tools.

#### **Careers Guidance courses**

Employment Guidance for College Students is a book published by Beijing Broadcasting Institute Press on January 1, 2006, and is written by Jiang Naxin. This book is about policy guidance, technical guidance, legal guidance, entrepreneurship guidance, career planning guidance, and pre-employment guidance for college students' employment. It is a required course at Chinese universities.

# Students' learning achievement in Careers Guidance Courses

Learning achievement of Career Guidance course is organized twice a year; three weeks before the end of the semesters of each academic year, and students should take the examination at the end of the semester. Students may take the examinations of their own choice. In this study, the learning achievement will be assessed by the students' achievement tests including pretest and posttest (pretest and posttest questions are the same but in different order of answer choices). Before and after learning with the MOOC, participants' performance will be evaluated using an exam paper that covers four broad topics. Preparation for Interviews, Career Planning, Career Skills Development, and Interpersonal Communication. Ten multiple-choice questions and one subjective question will be included in each topic. A total of 40 multiple choice questions and four subjective short answer questions.

# 1.8 Limitations of the Study

- 1.8.1 This study was limited to a single non-core course in a university in China. Therefore, generalization of the findings to students in other grades or other courses may not be reliable.
- 1.8.2 To be unable to attend offline classes, students may not have sufficient opportunities to interact with their teachers; therefore, the results may not be as viable as the results that are obtained from the offline settings.

# 1.9 Significance of the Study

The significance of the study can be stated as follows:

- 1.9.1 The use of MOOC helped improve the university students' Careers Guidance courses achievement.
- 1.9.2 Year 3 University students in Heilongjiang had a positive attitude towards using MOOC for Careers Guidance course.



#### **CHAPTER 2**

#### LITERATURE REVIEW

This chapter reviews the literature and the background of related teaching and learning theory, and other related details regarding the research. At the end of the chapter, the related research and studies are summarized to give a clearer perspective of the areas concerning the study.

# 2.1 The Development of Careers Guidance in China

In 1999, the Chinese government approved the Ministry of Education's Action Plan for the Revitalization of Education for the 21st Century, which established a system for the employment of university graduates. Because of the expansion of university education in terms of enrolment, the issue of employment of university students has become increasingly important. It has highlighted the feasibility and necessity of Careers Guidance courses to serve the employment of college students and greatly promoted the construction and development of Careers Guidance courses for college (Zhou, 2009).

In 2003, the Chinese Ministry of Education incorporated Careers Guidance courses into daily teaching as an important part of student's education at school. 2007, the Chinese Ministry of Education issued the Teaching Requirements for Careers Development and Careers Guidance courses for College Students, detailing the nature and objectives of the courses, main contents, curriculum, teaching assessment, teaching management, and conditions support for college students' Careers Guidance courses. 2009, the Chinese Government In 2009, the Chinese government required colleges and universities nationwide to offer a compulsory course on Careers Guidance. Since then, the Chinese Ministry of Education has been attaching great importance to the discipline construction and curriculum construction of the Careers

Guidance course. At this stage, China's Careers Guidance courses have entered a period of development in curriculum construction, with further popularization of the courses, a complete curriculum system, and more standardized course implementation (Liu, 2014).

# 2.1.1 The Education policy in China and Career Guidance

In 1990, China's Ministry of Education issued the Circular on Further Improving Ideological and Political Education for Graduates of Higher Education Schools, which stated that schools in a position to do so we're encouraged to offer Careers Guidance courses or lectures. In 1995, the Circular on Offering Optional Courses on Careers Guidance in Higher Education Schools proposed that Careers Guidance courses be offered as optional courses on a trial basis (as cited in Fu, 2013). In 2007, the Circular on Teaching Careers Development and Employment Guidance Course for College Students required that the Careers development and employment Guidance course for college students be offered as a compulsory or elective course and required that after three to five years, all schools transition to a compulsory course. In 2009, the Circular on Strengthening the Employment Work of Graduates from Ordinary Higher Education Schools again stated that colleges and universities should offer employment Guidance courses and make them mandatory courses. Since then, the Careers Guidance course for college students has completed the evolution from encouraged to mandatory and from optional to compulsory in terms of policy (Zhu, 2009).

## 2.1.2 Changes in the content of Careers Guidance courses

From choosing Careers Guidance to planning Careers Guidance, the concept of Careers Guidance courses for college students has experienced a change from initially assisting graduates to be successfully employed to focusing on the Careers development of college students (as cited in Wang & Li, 2012). Early Careers Guidance courses for college students were theoretically guided by the match between

students and Careers, with students' employment success as the goal, and Careers Guidance work was mainly focused on the employment stage and conducted for graduating students. Nowadays, Careers Guidance courses focus on both the employment and developmental needs of students, teaching college students to learn to assume appropriate social roles and helping them to prepare.

Careers is a continuous process, and Careers Guidance has begun to be implemented throughout the university study Careers. The implementation of the curriculum is gradually becoming full-fledged, mainly in the sense that the teaching of Careers Guidance courses begins to run through the entire university study process, combining the characteristics, problems, and individual differences of college students of different ages, and continuously carrying out targeted Guidance. It also begins to penetrate into all aspects of the study through teaching various disciplines, student education activities, university management, and other means (Ma, 2009).

# 2.1.3 The impact of Careers Guidance programs on university education

The demand for employment of university students is the most direct reason for the development of Careers Guidance courses. Graduates enter the job market after graduation and compete in the market according to their individual abilities and conditions. Therefore, it is necessary to continuously improve one's professional ability in order to win in the fierce market competition. This realistic demand forces the government and universities to continuously strengthen the construction of Careers Guidance courses to make it a more convenient and effective way to help college students succeed in employment (Lai, 2008).

The real needs of university students directly affect the reform of the content and form of university Careers Guidance courses. Society's demand for talents makes it necessary for university students to pay attention not only to short-term training and upgrading of employment skills but also to long-term education and cultivation of

development potential, which makes it necessary to constantly update the educational concept and enrich the teaching content of university Careers Guidance courses. The implementation of the curriculum should be carried out throughout all the educational and teaching processes in universities. At the same time, university Careers Guidance courses must take into account the commonality and individual differences of students' groups and adopt diversified forms of course implementation so as to effectively improve the effectiveness of course teaching and achieve the goal of talent cultivation (Wang & Qian, 2011).

# 2.2 Courses for Career Guidance in MOOC Environment

The emergence of MOOC has brought a huge impact on human technology, culture, and life, and at the same time has brought a huge change to education. In recent years, the new educational tool, the internet, has been changing our learning patterns and has unparalleled advantages over traditional teaching (as cited in He, 2001).

In the traditional teaching process, the information is only the teacher's voice, the textbook, and the blackboard, the amount of information is small, while the MOOC can use the relevant content and principles in the form of text, animation, short films, and other graphic and realistic and vivid performance, students accept it to save time and effort. In addition, the discussion of problems in the classroom can also be made more reliable by inviting relevant experts to discuss through the internet (Yao, Sun, Wu, Wang, & Shang, 2011). Therefore, students can also learn more information about employment, and the information source will be more abundant.

In a MOOC, students are confronted with questions, and ideas are open. It is possible to be free from the limitations of classrooms, teachers, and classmates. In addition, the audience of student communication is expanded to more classmates, teachers, and even experts for cross-territory communication through modern means,

which is a world away from traditional offline teaching methods (Zhang & Chang, 2008).

In a MOOC, students can learn at their own pace of understanding, and they can think about difficult points repeatedly until they figure them out, without affecting the content and progress of future learning, which is better than the consistent pace of teaching in traditional education, which leads to some students not being able to keep up with the teaching speed (Zhang & Guo, 2008). Careers Guidance courses have a lot of useful content that can be learned repeatedly also help students can practice at their own pace.

One of the great advantages of MOOC is its time-spanning feature. As long as one has access to the internet, one can enjoy a good and caliber variety of education. Online education can also ensure the best teachers, and secondly, it can ensure that it meets the students' own characteristics so that they can get more job information and job search skills that meet their needs (Sun, Cao, & Bian, 2005).

MOOC-based online teaching is mainly supported by the network environment. With the medium of the network, teachers and students communicate through real-time interaction or non-real-time interaction, and may also be assisted by a small number of other interaction methods to improve the teaching process. Web-based teaching and learning activities can be used to train students in remote areas to make up for the lack of teacher resources in some areas so that students in some remote areas can also learn excellent Careers Guidance courses, which can help students to better achieve employment (Ni, Li, Cao, & Ma, 2010).

Real-time interaction is achieved through Internet technology, where teachers use the Web as a real-time communication channel to communicate with students at the audio, graphic, and textual levels. Non-real-time teaching and learning activities are designed by the teacher to put the teaching materials on a web server, and students can learn at any time and any place by connecting to the teaching website (as

cited in Yuan, 2008). MOOC is the latter, which overcomes the disadvantages of using large bandwidth resources and relying on network stability for real-time transmission, and gives students more choices. The communication between teachers and students in this teaching method can be solved by regular tutorials by teachers and online question-answer systems (Ou, 1996). Similarly, this approach is more suitable for Careers Guidance courses because the course is more practical and teaching through MOOC allows students to learn or communicate with the instructor anytime and anywhere.

# 2.3 Standards of Careers Guidance in China

According to the Chinese National Standards Announcement No. 11 of 2017 issued by the Chinese National Standardization Administration, the published Specification for Careers Guidance Services for College Graduates (2017) outlines that graduates in their fourth year of college will demonstrate that they can:

#### Careers Planning.

- 1) Understand the meaning of a Careers.
- 2) Mastering the characteristics of a Careers.
  - 3) Develop your own Careers plan.
  - 4) Develop a strategy for your own Careers development.

#### Self-awareness.

- 1) Students recognize the professional personality of the self.
- 2) Students evaluate their own professional competencies.
- 3) Students determine their own position in life.

#### Occupational environment.

- 1) Master the characteristics of your field of study.
- 2) Students master the characteristics of their intended Careers.

- 3) Students understand the relationship between their professional role and their life role.
  - 4) Students take control of their current employment environment.

Pre-job search preparation.

- 1) Requires a Careers program.
- 2) Ask students to list the factors that affect their Careers.
- 3) Create a resume of your own.
- 4) Develop a Careers plan for your next three years.
- 5) Students design a virtual interview among themselves and each experience as an examiner and interviewer, respectively.

Therefore, the main goal of Careers Guidance programs in China is to help students develop and hone their work skills. Skills in Careers planning, self-awareness, interviewing, and resume building are necessary for future graduate work. Two key factors to consider in order to achieve these goals are teaching methods and case presentations.

Some of the classroom practice guidelines that teachers need to follow are (Careers Guidance, 2009).

- 1) Employment-oriented, with the goal of enhancing students' comprehensive employability, highlighting the Guidance on employment throughout the students' school years.
- 2) Strengthen the publicity and education on the employment situation and policies to help students establish a correct concept of employment.
- 3) Make full use of modern technology and means, and adopt flexible and varied methods to organize teaching and training in Careers planning and employment Guidance, mobilizing students to participate wholeheartedly.
- 4) Teaching sessions include classroom lectures, group discussions, case studies, extra-curricular practice, and post-curricular question and answer

sessions. Modern teaching methods such as multimedia are used in the teaching process.

5) Enhance teacher-student interaction and show more cases to students through teachers conducting employment experience.

Steps of teaching class.

search?

In this study, MOOC is applied in a Careers Guidance course. The teaching process can be illustrated as follows:

At the beginning of the class, the instructor asks the students 3 questions below:

- 1) Where should I go if I want to learn more about local labor policies?
  - 2) What should I do if I run across difficulties throughout my job
- 3) If I am having trouble with my job search, where should I go to find a solution?

Students will enter the class with the questions and spend 5 minutes.

After that, the students will watch a video on how to obtain the career policy handbook and the handbook's major features. The primary contents are employment policies, employment channels, common employment problems, and how to resolve them. Additionally, students are provided with a link to download the electronic version of the manual during class, and they are instructed to carefully read the manual's contents after class, which will take 20 minutes in total. Then, the students will view a video presenting Chinese labor law and will become familiar with three labor regulations. The first law establishes a legal rest period; the second establishes a legal salary system; and the third establishes a legal means of defending their rights, which will take 15 minutes. Finally, the students will be asked 5 questions and they will write down their answers on paper and upload them to the MOOC system for the instructor to review.

- 1) How to find out about local employment information?
- 2) What are the current methods for finding work? Provide two or more examples.
- 3) What should I do if I come across a company that does not adhere to the legal criteria for contract signing?
- 4) Is it necessary to have a career plan before looking for a career and why?
  - 5) What career do you want to pursue and why?

Therefore, the purpose of a Careers Guidance course is to give students regular time and periodic opportunities to practice working skills in a variety of situations (Careers Guidance, 2009). To achieve this, teachers can choose any materials that are of interest to students, as long as they help develop their employability skills.

# 2.4 The Importance of Career Skills

Employment theory based on Marx (as cited in Qiao, 2006) explains why employment requires practice to be successful. When learners leave the learning environment and use the skills that they have learned to find a job, they first become resistant to unfamiliar surroundings. In addition, job seekers are often confused by the fact that the actual work environment can vary from what is expected. This is why job search skills are so important for job seekers.

Employment skills can help students become familiar with national employment policies, understand social and vocational information, recognize the employment situation, and change their employment concepts (as cited in Chang & Xiao, 2004). At the same time, they can constantly improve their own quality, master the skills of job hunting, and enhance their competitiveness in the workplace and their ability to adapt to society.

The employment problem of university graduates has become a social issue. The Careers Guidance course in university teaching is an important part of university education. Schools should pay full attention to the teaching methods, the construction of faculty, and the development of professional disciplines for the Careers Guidance course. It is necessary to adopt scientific teaching methods, multiple modes of teaching and cultivate professionally competent teachers (Wang & Meng, 2003).

In recent years, the employment situation of students graduating from Chinese universities has not been optimistic, with the contradiction between supply and demand prominent and the overall employment rate not high. On the one hand, the transformation of state-owned enterprises has narrowed the employment channels for college students. On the other hand, the number of university graduates has been increasing year by year with the expansion of universities (as cited in Liu & Li, 2007).

Careers Guidance courses can build a bridge between students and (enterprises 2013). Schools can provide university graduates with extensive and accurate recruitment information through the courses, and they can also introduce information about graduates' learning outcomes, professional knowledge, and interests and strengths to enterprises so that enterprises and other organizations can easily select suitable talents (Li, 2008).

The development of the economy requires a large number of talents to power it, and universities are the talent pool of society. The focus of the employment Guidance work of university graduates is mainly to reasonably deploy talent resources and avoid wastage of talents. Some graduates blindly aspire to regions with developed economic construction, but the number of talents in these regions themselves and the existing number of talents are already in greater supply than demand, while the requirements for talents and the increasing pressure they face may not be the best choice for graduates. The employment Guidance system of colleges and universities can provide timely Guidance to guide students to work in more suitable areas and also encourage graduates to start their own business and make their own development.

Cultivate the correct employment concept of graduates to avoid the loss of talent resources and enhance the reasonable deployment of talents (Wang, 2009).

Universities have established information network platforms to enhance the fluidity of communication information. At present, graduates do not have timely and comprehensive information about job search, and the phenomenon of scattered, lacking, and distorted information is more prominent (as cited in Zhao & Wang, 2004). Careers Guidance courses can enhance the communication between graduates and enterprises. At the same time, the rapid development of information technology, the constant updating of communication means, and the popularity of computers have facilitated the transmission of information. By creating an employment information network, universities collect and update relevant information from various aspects in a timely manner and network the information of campus graduates with various domestic social talent information websites in China to form an open employment information network (Chen & Zhong, 2006).

Subsequently, enhancing students' employment skills during the university teaching process, as well as proactively providing good employment guidance for college students, play an important role in promoting both the future development and construction of the university, as well as the education of students. Implementing a scientific and modern management system, strengthening the university's employment service department and enterprises to establish long-term information communication, understanding the direction of talent demand, improving the ability of college students' employment, and encouraging two-way selection between college students and enterprises can all contribute to providing good preparation for college students' graduation and subsequent employment (Chi & Zhang, 2003).

## 2.5 Benefits of Technology in Education

In traditional teaching models, there is often a great deal of indoctrination-based knowledge, which also neglects the development of creative

thinking in students. The most distinctive feature of creative thinking is its ability to provide novel, original, and valuable thinking outcomes. Since technology teaching discards the conventional thinking patterns developed in traditional subjects, it is fresh for students, and their creative desire can be greatly stimulated, so it can cultivate their creativity (Zhang, 2015).

Instead of chalk scribbling on the blackboard, technological teaching tools are turned into good-looking pictures, film, and television materials displayed on the screen, and students can feel what they are learning more intuitively. The classroom teaching is richer and more vivid. By creating teaching scenarios, students are motivated and induced to actively participate in the learning process. The teacher has guided the students to broaden their horizons in the process of teaching. Students are accumulating a lot of material under the condition that the classroom atmosphere is really active and stimulates students to take the initiative to acquire knowledge (Bloomberg, 2012).

Students often encounter difficult points of knowledge that are not easy to solve. This is when technology is used to create scenarios that use students' visual and auditory senses to deepen their understanding of difficult points, thus achieving effects that other teaching methods cannot (as cited in Wang, 2005).

Modern technology, such as network information, multimedia teaching software, and other applications, can provide us with powerful scenario resources (as cited in Qi, 2002). One teacher used PowerPoints to create dynamic planar vector courseware in the teaching of Basic Concepts of Planar Vectors and Coordinate Representation of Planar Vectors. Students can understand the basic concepts of planar vectors more intuitively and deeply understand the meaning and role of coordinate representation of planar vectors. So, the scenarios generated by technology are useful for education in a way that traditional teaching tools cannot match (as cited in Dang, 2019).

Targeted exercises can be prepared using computer multimedia technology. It can turn to learn from passive to active, abstract to concrete, and consolidate what has been learned through entertaining exercises, thus stimulating students' inner interest in learning. For example, various forms of multiple-choice, fill-in-the-blank, and right-wrong questions are compiled in the exercises, and the computer is used to judge whether the students' answers are correct or not, and according to the exercises, necessary praise and encouragement or repetition are given, etc (Zhong & Zhang 2007).

## 2.6 MOOC as a New Medium for Careers Guidance Courses

MOOC teaching characteristics: giant student size, diversified student identity, well-designed structure and content, and novel model. The syllabus and teaching schedule can be announced before the study. Advance announcement of weekly course topics, reading materials, exercises, and assignments, including submission time, grading policy (Deng et al., 2013).

The MOOC provides a realistic and practical way to teach Careers Guidance courses; students can choose their suitable paths and pace according to their own time, learning starting point, and knowledge and experience. The MOOC provides a realistic and practical way to teach Careers Guidance courses.

In addition, because of the differences between individual students, teachers can make suggestions for different students through online tools, which are more conducive to independent learning. In traditional teaching, students' thinking activities are limited to the classroom. In MOOC teaching, the teacher's role is changed (from a dominant to a supporter), and the teacher only gives a little advice, so the students' thinking is not influenced by the teacher (Shi, 2017).

MOOC allow students to break through the geographical and time constraints and participate in student-student and student-teacher communication as

equals. Because it is online, it avoids the shyness of some introverted students. Because of the comprehensive coverage of the internet and a large number of participants, students can learn from the merits of others on a broader scale. This will be very helpful for students' employment because employment often means experience, and a lot of communication can help students grasp a lot of experience quickly (Zhou & Zhang, 2018).

The introduction of MOOC has made it possible to teach in categories. College students have different job-seeking intentions; some want to take civil service exams, and others want to join companies. Different types of units require different abilities for job seekers. With various practical constraints in Careers Guidance classes, traditional teaching methods can only be explained in the classroom, making it difficult to provide accurate and in-depth Guidance to students with different job search intentions (Fan, 2017). Students are not interested in content other than their job search intention during the lecture, and class participation is low, which affects the overall atmosphere of classroom teaching. Using MOOC teaching can modularize the lecture content and explain in-depth online the requirements of different types of units for job applicants and the corresponding interview skills, achieving more targeted education (as cited in Zhao, 2018).

# 2.7 The Benefits of MOOC Applied to Careers Guidance Courses

#### 2.7.1 Learning time and place on a whim

As long as you have the network and equipment you can go online to study, instead of having to go to class at a fixed time and place like a traditional classroom, MOOC can enable students to flexibly arrange their study time according to their own needs, breaking through the various restrictions on time and place, students can study courses at any time and any site through MOOC. It meets the needs of many students to review while seeking employment.

## 2.7.2 Arbitrary scheduling in learning progress

Each student's ability to comprehend and the lesson's difficulty is different, and some students with a high level of comprehension learn faster. Some students with poor comprehension skills will learn more slowly. However, traditional education is uniform in terms of teaching schedule, and it isn't easy to consider the learning speed of individual students. It will not re-tutor the course because a student did not understand a specific chapter. At the same time, the MOOC video is made in advance on the internet, which chapters you want to learn, how long you want to know is entirely in the hands of the students, familiar knowledge can be quickly passed, and their more difficult to understand can be arranged for a significant amount of time, completely free of any restrictions on the repeated. There is absolutely no restriction on repeated learning. You can also watch the Careers Guidance course repeatedly before the interview, which better solves the problem of students quickly forgetting the classroom content.

## 2.7.3 Sharing of resources for outstanding teachers

In traditional education, due to the different actual teaching conditions and teaching resources in other regions, there is a severe lack of teachers in many remote areas, and in some areas, there are no teachers, which restricts the local education level to a high level. The advantage of MOOC is that it can bring together excellent teachers from all over the country so that students from all regions can hear courses taught by famous teachers, thus better-improving students' employability, because teachers may come from all areas, so they can also understand the employment policies of each site.

#### 2.7.4 Adequate time for question and answer

One of the critical aspects of students' learning Careers Guidance is communication, which includes communication between students and teachers, and communication between students and students, through which students can timely find and solve some problems encountered in employment. The MOOC extends students' questions beyond the classroom through its unique tools, such as chat-box, forum, etc. It is no longer limited to the limited classroom time, and students can ask questions anytime they find them in their minds and get detailed answers in a short time. They can also check the questions mentioned by others and fill in the gaps in their learning.

#### 2.7.5 Expanded scope of communication

Traditional Careers Guidance courses are limited by time, space, and people, and communication among students is often limited to dozens of students in the class, while MOOC connect students from all regions through chat-boxes and forums, providing a broader space for communication.

## 2.7.6 Timeliness of relevant information sharing and feedback

Many times, in order to find a piece of relevant information, policies, and regulations, the entire library is searched, and a lot of time is wasted, and sometimes the information is not found at all due to the lag in delivery. MOOC, on the other hand, can provide a rich online library along with online courses, so that students only need to enter keywords to find the information they need, and the latest policies about exams and the latest changes in textbooks can be delivered to students at the first time.

# 2.8 Selection of Appropriate MOOC Videos

MOOC is a new teaching model that started to prevail with the rapid development of computer networks. Compared with traditional classroom teaching, it has the characteristics of resource sharing, the autonomy of learning, the openness of course structure, and the collaboration of learning.

Selecting an appropriate MOOC course for students from a large online library of MOOC videos is complex, and what is ultimately chosen will depend

heavily on the level of the students and the course objectives. Therefore, it is necessary to select the most appropriate MOOC course for students in order to use MOOC courses to improve their performance in Careers Guidance courses. At the same time, it is crucial to adopt a set of criteria in Careers Guidance course learning and teaching that will provide a clear basis for students when measuring their own performance. Some of the factors that need to be considered when selecting MOOC courses for students are discussed below.

## 2.8.1 Selecting content

Each unit, topic, and project in the teaching process has certain teaching objectives and specific teaching requirements. To achieve different teaching objectives, we need to use different media to transmit teaching information, such as explaining the current employment environment. It is difficult to speak clearly with plain text or language, it is much better to use graphics or images, and it is clearer to show data with statistical charts (as cited in Wu, Tan, & Song, 2017). Therefore, the selection of MOOC course content must take full consideration of students' needs, such as students' employment direction, students' employment location, students' employment type, etc., and select MOOC courses that meet students' needs according to their specific needs.

# 2.8.2 Age and student interest Range

The MOOC course chosen because of its pedagogical purpose must be interesting to the students. The age of the students is about 19 to 22 years old. So the course content needs to be engaging enough, and more importantly, it needs to have very clear steps to follow and be practical. Since the Careers Guidance course is for graduating college students, the course content must have detailed instructions to assist students in learning how to get a job and plan for their future. Students will only be interested in the course if it is necessary for them.

#### 2.8.3 Classroom time control

Since students' attention span and enthusiasm are limited, especially for college students, teaching with a MOOC is best kept to 50 minutes. For a course on Careers Guidance, it is more important for students to practice rather than just watch the MOOC video, so the course needs to give clear steps to practice and engage students more in the practice of employment.

# 2.8.4 Identifying the employment needs of students

The employment needs of each student are inconsistent, so in determining the employment needs of students, much depends on the needs of each individual student and the objective conditions of the current area of employment. Therefore, when selecting a MOOC for teaching, it is important to choose the appropriate topic based on the needs of the students.

# 2.9 Cognitive Theory of Multimedia Learning

The cognitive theory of multimedia learning was proposed by Richard E. Mayer, a contemporary American educational psychologist, and cognitive psychologist, in his book Multimedia Learning, and proved to be correct and scientific through numerous psychological experiments. Richard believed that multimedia information designed according to the way people work mentally is more likely to produce meaningful learning than multimedia information not designed according to the way people work mentally. Richard argues that multimedia messages designed in accordance with the way people work are more likely to produce meaningful learning than multimedia messages that are not designed in accordance with the way people work (Liu, Zhao, Chai, & Xu, 2007). Simply put, multimedia instruction has a richer delivery medium than traditional instruction and therefore has a more positive impact on the process of learning. The main means of teaching in this study using MOOC is

part of multimedia teaching and learning. The cognitive theory of multimedia learning has the following three basic assumptions.

Dual-channel hypothesis: this hypothesis states that people perform cognitive processing with corresponding information processing channels for both visually represented and auditorily represented material. A MOOC will use students' visual channels more than traditional offline Careers Guidance instruction and can more fully invoke human visual channels (Zhang & Shao, 2009).

Capacity-limited hypothesis. People need to consume cognitive resources when they perform cognitive processing, and cognitive resources are limited, so the amount or load of information that a person can process in any of the dual channels at the same time is limited. Compared with traditional offline Careers Guidance instruction, MOOC has the advantage of repeated learning, so it can be independent of the current time cognitive capacity. If a problem is not learned, one can choose a different time for repeated learning (Wang, 2009).

Active processing hypothesis. People actively engage in cognitive processing in order to establish a consistent mental representation of the presented material in relation to their experience. Active cognitive processing involves forming attention, organizing newly accessed information, and integrating the newly accessed information with another knowledge (Wang, Zeng, & Zheng, 2013). MOOC has more visual information than traditional classrooms that can only deliver lessons through what the teacher says and the information on the board, so there will be more image information involved in the active processing, which will help students remember the content in the classroom more, for example, MOOC classes may use a lot of video pictures for teaching, and students will be more likely to remember the images as well as the videos.

Student participation in MOOC is a highly effective modern teaching method, in which students are constantly engaged in a learning environment that involves moving their eyes, ears, brains, mouths, and hands while trying out new things, exploring new things, and discovering new things, and in which they are always in an excited, happy, and eager psychological state while learning, and in which their primary role is effectively played. MOOC, on the other hand, are simply auxiliary tools, and they cannot be used to replace contact between teachers and students, nor can they be used to replace the guidance of teachers or the primary role of students. However, by making acceptable use of contemporary technology, it will be possible to enhance the Careers Guidance course, provide a large scope for the investigation of teaching techniques, and provide strong conditions and a large space for the development of students' employability in a variety of fields.

# 2.10 Related Studies on the Use of MOOC

MOOC have had a significant impact on current network technologies and online learning forms based on these technologies, as well as posing new and higher-level challenges to the education of Career Guidance courses in schools, overturning the traditional teaching model and posing a new and higher-level task for school education, particularly for higher education at the advanced stage of talent development.

The emergence of MOOC has had a significant impact on current network technologies and online learning forms based on these technologies, as well as increased challenges to the education of careers guidance courses in schools, causing the traditional teaching model to be overturned and posing a new and higher-level task for school education, particularly for higher education at the advanced stage of talent development.

The Chinese education sector places a high premium on the development of MOOC in university education and has made significant educational investments, including in the development of Career Guidance courses. China Education Network's April 2013 edition features a series of articles about MOOC, including one by Jiao Jianli, who asserts that MOOC would have a significant and far-reaching impact on

the informatization, internationalization, and democratization of Career Guidance courses. He makes five recommendations to Chinese universities: incorporate open educational resources and MOOC into university development strategies; assist teachers and students in mastering cutting-edge job search techniques; actively investigate innovations in university curricula and MOOC teaching models; and assist teachers in incorporating OER into their own classroom instruction (Wang, 2013).

In 2013, the Ministry of Education of China hosted the first national university MOOC teaching competition, which was won by the University of Hong Kong. Participating teachers design their own courses, make extensive and reasonable use of a variety of modern educational technology tools and equipment, and record a knowledge point or teaching session using video as the primary carrier of the information they share. Create an exercise for teaching that is both brief and comprehensive. The tape is approximately 10 to 20 minutes in duration, and it is accompanied by supporting materials such as a teaching design text and multimedia teaching materials, among others. The total number of submissions approached 12,000, with approximately 8,000 courses making it through to the replay. This competition has significantly aided the advancement of MOOC courses in China, as well as the popularization of MOOC among many ordinary people, including those who have not previously attended university (Zhang, 2013).

MOOC shifts the education model from teacher-centric to student-centric and promotes personalized learning. This is an epochal and dramatic change in education. In addition, online courses will become the cornerstone of the college experience for current students, and the convergence of virtual classrooms and real classrooms will drive academic growth. Exam results at San Jose State University have proven that online education technology can improve pass rates in college courses. The pass rate for exams with integrated online content was 91 percent. The pass rate for exams that did not include online content was only 55% (as cited in He, Ma & Sun, 2012). Anant Agarwal, the founder of edX, said, "We are revolutionizing education, and MOOC will change the world." Not only that, the emergence of

MOOC reflects the internationalization of higher education, with Coursera, edX, and Udacity registering regardless of nationality, a wave that is surging across the globe as an excellent way to globalize and equalize education.

Jilin Animation University used a MOOC to teach students in the course "Interactive Media Marketing" in 2015. The final results show that the hybrid teaching model under MOOC is not simply a combination of traditional classroom teaching advantages with digital teaching advantages, but a combination of complex online teaching system advantages with physical classroom teaching system advantages, including multiple combinations of different learning theories, learners, teachers, learning environments, and teaching methods.

Through the provision of an online Interactive Media Marketing lesson, Gilligan Animation University makes academic knowledge content available as courseware or video for repeat study. An information transfer procedure is being performed. Student self-study prior to class serves as the primary means of information transmission. The teacher gives not just videos but also online tutoring to assist students in transferring their knowledge. Students are also given the freedom to plan their own studies, choose their own level of difficulty and materials, and make efficient use of their spare time to accomplish their learning activities. Using online questioning sessions and repeated repetition, students are able to overcome challenging and critical learning challenges. Furthermore, teachers can plan classroom lectures depending on the input they get from their pupils. Seminar-style lectures in the classroom are used to help students improve their critical-thinking and communication abilities. As the course progresses, students get more and more immersed in it.

All of the research presented thus far has produced extremely encouraging findings. Researchers throughout the world have shown that MOOC may be used to help students enhance their academic abilities. There were several drawbacks to these studies, but they also made recommendations for future researchers to focus on a few

select areas in order to improve their work and boost their awareness. Mentors and academics have been proposed by a few of them to do studies at various levels and grades. They said that they should use the MOOC to its fullest potential in the classroom by collecting the most important findings from the research and using them in a way that makes the most sense in the classroom.



#### **CHAPTER 3**

#### RESEARCH METHODOLOGY

This research aimed to compare Year 3 Chinese University students' learning achievement in a Careers Guidance before and after using MOOC and examine their satisfaction in using MOOC in a Careers Guidance course. In this chapter, the researcher is going to present the methodology of this research. It includes the research design, the sample group, the research instruments used to collect data, the validity and reliability of the research instruments and the data analysis.

## 3.1 Research Design

A mixed-mode research approach was used to conduct this study. According to (Judy, 2012), mixed methods research involves the collection, analysis, and interpretation of quantitative and qualitative data in a single study. Furthermore, (Li & Zhao, 2004) argue that mixed methods offer an alternative to traditional quantitative and qualitative methods. Furthermore, "mixed methods refers to the researcher's tendency to base knowledge claims on pragmatism. It employs an inquiry strategy that involves collecting data either simultaneously or sequentially to best understand the research question. Data collection also involves gathering numerical information and textual information so that the final database is representative of both quantitative and qualitative information."

Additionally, (Zhang & Wang, 2014) suggest using multiple methods and data sources to withstand criticism from colleagues. In addition, (Ma & Zhang, 2011) noted that using a mixed-methods approach can develop a greater degree of understanding than using a single method for a specific study. Another reason for adopting this approach is to obtain valid and reliable results. Furthermore, (Huang, 2013) suggested the use of multiple methods to produce more robust and convincing

results than single-method studies. Figure 3.1below describes the research design of the study.

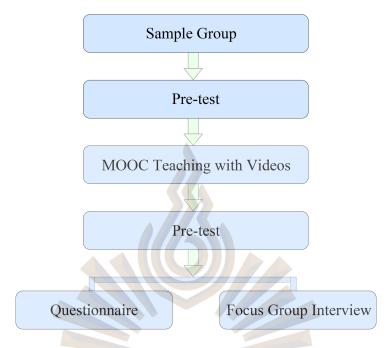


Figure 3.1 Illustration of Research Design

# 3.2 Population and Sample

The study was conducted at a university in Heilongjiang Province, China, with a sample group of 30 third-year university students. The chosen institution was a large metropolitan university in China's northeastern region. This university previously had 11,000 students and 876 faculty members up to the fourth year of college.

The researcher used a simple random sampling method to select one class (30 students) from a population of twenty mixed-ability classrooms of Year 3 university students who enroll in Careers Guidance course in Semester 2 of 2021 Academic Year. The sample included the students with mixed genders and mixed ability in Careers Guidance achievement.

#### 3.3 Research Instruments

According to (Hinds, 2002), research instruments are a tool used to collect, measure, and evaluate data on a topic of interest to the participants of the research. As a result, pretest and posttest, the satisfaction questionnaire survey, and focus group interviews served as the primary research instruments in this study, as they were used to collect data to support the research questions (Birmingham & Wilkinson, 2003). Details of the research tools used to accomplish the study objectives are shown in Table 3.1 below.

Table 3.1 Research Objectives and Instruments

	S1.	Research Objectives	Research
No.			Instruments
		To improve the learning achievement in a	Pretest and posttest on
		Careers Guidance course through the use	Careers Guidance
		of MOOC by Year 3 university students in	course achievement.
		Heilongjiang Province, China.	1
		ع <u>م</u>	S
		To examine Year 3 university students'	Questionnaire and
		attitude towards the use of MOOC in	Focus Group Interview
		Heilongjiang Province, China.	

#### 3.3.1 Instructional Instrument

#### 3.3.1.1 Lesson Plans

The researchers developed four 100-minute lesson plans for one month (1 lesson plan = 2 sessions). A sample group of 30 students was instructed twice per week over eight sessions. Lesson themes were determined by the educational

level of the sample group and the course materials. Before delivering the lectures to the sample group, the researcher received approval from the professors of the relevant disciplines. For the pretest and the posttest, students required 60 points out of a possible 100 points to pass the course. In addition to 40 multiple-choice questions (each worth two points; a total of 80 points), there were also 4 short answer questions (5 points per question; a total of 20 points).

The pretest and posttest topics covered the topics such as interviewing skills, career planning skills, employability skills, and workplace interaction. The achievement tests (pretest and posttest) were used to analyze students' performance in terms of their total score, mean score, and standard deviation. There were three parts of the questionnaires: Part A was related to students' learning achievement; Part B was related to the courses; and Part C was related to MOOC. A questionnaire was administered to collect the scores, and the results were analyzed using means and standard deviations. The focus group interview topics included Part 1: Interest and Motivation, Part 2: Attitudes toward MOOC education, and Part 3: Course Quality, respectively. Based on the results of the interviews, we were able to evaluate the academic performance of year three university students who enrolled in the Careers Guidance course and their attitudes toward the use of MOOC instruction.

# 3.3.2 Instruments of Quantitative Analysis

#### 3.3.2.1 Careers Guidance Achievement Exam (Pretest and Posttest)

The Careers Guidance Achievement Test was a pretest and posttest design to compare the achievement of the students in a sample group before and after a career coaching intervention. Participant learning performance was assessed before and after the MOOC study by using exam papers that covered four broad topics. These topics included interview preparation, career planning, career skill development, and interpersonal communication. The test consisted of ten multiple-choice questions and one subjective question. There were also 40 multiple-choice questions and four

subjective short-answer questions. These topics were specifically selected to complement the content of the MOOC and to align with the general career guidance topics for third-year Chinese students. The educator evaluated the tests using the Career Guidance analytical scoring methodology (2009). Subjective questions were evaluated according to three criteria: reasonableness, accuracy, and fluency. The results of each student's examination were administered both pre-and post-test by two assessors (including the researcher).

## 3.3.2.2 Careers Guidance attitude questionnaire

A questionnaire consisting of 15 statements, rated on a five-point Likert scale, was administered to examine the students' attitude towards the use of MOOC for careers guidance. Each statement was rated on a Likert scale from 1 to 5, with five being the highest or Strongly Agree, (4) Agree, (3) Neutral, (2) Disagree, (1) Strongly Disagree. The statements were classified into three broad categories: interest, course outcomes, and the effectiveness of MOOC to improve the quality of learning. For the data collection, the researcher used questionnaire since they appeared to be an efficient method of collecting data in various ways to accomplish the study's objectives and address the study's target audience (Gillham, 2008). Additionally, researchers collected a large amount of data from a large number of participants in a short period, which enabled them to generalize their findings. Stone (1993) indicates that people who come to the institute are provided with a briefing by the institution. Each statement is then explained in detail to them.

## 3.3.3 Qualitative instrument

#### 3.3.3.1 Focus group interview

According to (Pan, Yao, & Huang, 2010), the disadvantage of using questionnaires is that unclear or ambiguous statements can be misinterpreted, and respondents do not have the opportunity to elaborate or verbally respond to the

statements. In order to confirm and complement the qualitative data collected through the questionnaire, focus group interviews were conducted. Similarly, a researcher can prepare a set of questions for use in focus group interviews in order to get specific data pertaining to the research objectives (Huang, Pan, & Wang 2008). A researcher developed six questions to assess how students were using MOOC in the career guidance classes. In this focus group interview, questions were divided into three broad areas: student interest and motivation, attitudes towards using MOOC for education, and the quality of the course. After the intervention period, these questions were clearly explained to the three groups of students who volunteered to participate in the focus group interviews. Then, the responses were audio-taped for the following analysis.

## 3.4 Validity and Reliability

#### 3.4.1 Validity

A valid study, in general, measures what the study is intended to measure or whether the results are accurate (Jing & Sun, 2004). The research instruments were examined and validated by three experts, one from Rangsit University and two from China. The Item-Objective Congruence Index (IOC), which Rovinelli and Hambleton developed in 1997 (Zhang & Zhao, 2007), was developed to analyze this study. The IOC range is between -1 and +1.

- 1) + 1: the item clearly matches stated objectives.
- 2) 0: the item is unclear whether the measures meet the stated objectives or not.
  - 3) -1: the item totally does not match the stated objectives.

Moreover, the operative score range domain is from 0.67 to +1. If the value of the item is between 0.67 to 1.00, this item will be applied as a part of instrument. However, if the value is under 0.67, this is considered as unclear and should be edited,

rephrased or removed. The average IOC validity score of all research instruments was 0.99 which was acceptable for the further study.

## 3.4.2 Reliability

The reliability of results is measured by determining whether they are replicable and can be maintained over time (Cai, Du, & Jiang, 2011). Two methods were used to check the reliability of the achievement test and the questionnaire, KR-20 and Cronbach's alpha respectively. According to Heile and Zhang (2007), reliability refers to the consistency of results obtained through repeat testing of an instrument. Accordingly, the researcher administered the test and questionnaire to another group of 30 students of the same grade level.

The reliability of the data was examined by using Cronbach's Alpha to determine the internal consistency, which is as follows:

Table 3.2 Cronbach's Alpha Rule of Thumb

Cronbach's Alpha Rule of Thumb	Internal Consistency	
92.	E	
o≥0.9	Excellent	
0.8≤α<0.9	Good	
0.7≤α<0.8 7 ยัวงลิต	Rangs Acceptable	
0.6≤α<0.7	Questionable	
0.5≤α<0.6	Poor	
α<0.5	Unacceptable	

Source: Habidin, 2015

The higher the score, the greater the reliability. All items of the questionnaire were tested using Cronbach's Alpha. If the score is less than 0.7, the item is considered unreliable and is deleted. In this study, the results of the achievement test reliability applying Cronbach's alpha was 0.75 and of the

questionnaire reliability applying KR-20 was 0.82. In short, all results here were acceptable.

#### 3.5 Data Collection Procedure

## 3.5.1 Approval and Ethical Consideration

Based on ethical considerations, the researcher submitted the letter of approval to the Ministry of Education (MoE) for authorization to conduct the study in the academic year 2022. After receiving an official letter of approval, the researcher was assigned to the District Education Officer (DEO). The researcher obtained the letter from the district education officer and requested approval from Heihe University, Heilongjiang Province.

Participants were also informed of study objectives prior to implementing the strategy. Additionally, study participants must sign consent documents to protect their legal and moral rights. As study participants were under 18, their parents countersigned the consent forms.

# 3.6 Data Analysis

Analyses of the data were conducted based on two different methods, both of which conformed to the two research goals. By using quantitative data from pretest and posttest as well as questionnaire, it was possible to assess the employability of the sample group as well as their ability to conduct interview and plan careers. In addition, students' attitude towards using MOOC in career guidance courses was examined based on quantitative data from questionnaire and also from qualitative data from focus group interviews.

## 3.6.1 Quantitative Data Analysis

Through achievement tests (pretest and posttest), students' achievement was evaluated by computing their total scores, mean score, and standard deviation. Furthermore, in order to better assess students' employability, the first ten multiple-choice questions were used primarily to test for interview skills, the eleventh multiple-choice question to twentieth multiple-choice question were used to test career planning ability, and the final ten multiple-choice questions were used to assess students' career planning ability. Students were tested on their workplace interaction skills using multiple choice questions. These tests were generally used to assess students' career planning abilities. Additionally, the subjects of the four subjective questions were based on the same theme as those of the multiple-choice questions. Afterwards, the mean scores of students from pretest and posttest were analyzed using a computer program with a correlation t-test ( $P \le .05$ ) in order to assess the significance of the differences among the two scores.

#### **Questionnaire**

In this study, achievement scores (pretest and posttest) were collected and analyzed by means and standard deviations, as well as answers to the questionnaire by means and standard deviations.

These methods were being applied to examine the academic performance of third-year Chinese university students and their attitudes towards MOOC instruction. The following mean score interpretation applies to further analysis of the data. (Source: Baidu Document Library).

Table 3.3 The Range of Mean Score Interpretation

Mean Score Range	Students' Perceptions Level
4.21 – 5.00	Highest
3.41 – 4.20	High
2.61 – 3.40	Moderate

Table 3.3 The Range of Mean Score Interpretation (Cont.)

Mean Score Range	Students' Perceptions Level
1.81 - 2.60	Low
1.00 – 1.80	Lowest

## 3.6.2 Focus Group Interview

Focus group interviews consisted of six questions that were classified into three main categories. Part A: Interests and Motivations; Part B: Attitudes towards the use of MOOC education; and Part C: Course quality. To obtain valid and reliable interview data, respondents' responses were recorded, transcribed, organized, analyzed, analyzed using thematic analysis and finally interpreted to answer research questions by the researcher. In addition, respondents were asked to ensure that the researcher had accurately transcribed the information they provided in the interview and all data were kept confidential throughout the study.



## **CHAPTER 4**

#### **RESULTS**

This study applied a quasi-experimental design to compare careers guidance course achievement among Year 3 Chinese university students before and after the use of MOOC instruction well as to examine students' attitude towards using MOOC in careers guidance classes. The findings of the study were derived from the following research instruments: Pretest, posttest, focus group interviews, and questionnaire. Comparative analysis and thematic analysis techniques were used to determine the impact of the MOOC. In this chapter, the findings of the data are presented in the following order:

# 4.1 Analysis of Careers Guidance Test Scores

This section presents the results of the first research objective to compare the achievement of third-year Chinese university students before and after using MOOC in a careers guidance course. The results of the study were obtained from pretest and posttest. In the pretest and posttest, students were asked the same questions based on four general topics mentioned previously. These topics were based on Chinese National Standards Announcement (No.11 of 2017) that was issued by the Chinese National Standardization Administration and the published Specification for Careers Guidance Services for College Graduates (2017). It was based on the following four areas: interviewing skills, career planning skills, employability skills, and workplace interaction skills. To exclude any bias, two assessors were involved. Comparative statistical analysis was conducted on the pretest and posttest scores of the sample group using mean, standard deviation and paired sample t-test with P≤ 0.5 being the level of significance.

## 4.1.1 Analysis of Paired Sample T-test

The analysis of test scores conducted using one sample statistics yielded a positive outcome, as shown in Table 4.1 below. The mean of the pretest was 35.67 with a standard deviation of 14.04, whereas the mean of the posttest was 52.20 with a standard deviation of 13.21. The difference between the means of the pretest and the posttest was 16.53, indicating an increase in the posttest mean. The significant value (P) obtained was 0.000, which was lower than 0.05 (P\*0.05); the T-test value was 5.133, indicating a statistically significant increase in the posttest scores compared to the pretest scores. The table below shows the comparison between pretest and posttest mean values.

Table 4.1 One Samples T-Test

One Samples T-Test

	Mean	N	Std. Deviation	Sig.
Pretest	35.67	30	14.04	.000
Posttest	52.20	30	13.21	.000

# 4.1.2 Comparison of Pretest and Posttest Scores of the Sample Group

Table 4.2 shows the scores of the pretest and posttest by the individual students in the sample group. The highest score on the pretest was 62 (out of a total of 100) and the lowest score was 8. The posttest scores increased significantly, with one participant receiving the highest score of 77 out of 100, an increase of 15 points compared to the pretest score, and one participant receiving the lowest score of 19 out of 100. All 30 students showed significant or slight improvement on the posttest with score gaps ranging from 8 to 28 points, respectively. Table 4.2 shows the scores, score increases, and percentage differences between the pretest and posttest of the sample group.

Table 4.2 Pretest & Posttest scores of the sample group

Student	Pretest Scores (Full	Posttest Scores	Increase in	% Difference
ID	Score=100)	(Full Score=100)	test Scores	
1	40	55	15	15.00%
2	39	47	8	8.00%
3	42	60	18	18.00%
4	48	57	9	9.00%
5	50	65	15	15.00%
6	55	67	12	12.00%
7	28	56	28	28.00%
8	34	44	10	10.00%
9	44	52	8	8.00%
10	55	72	17	17.00%
11	62	77	15	15.00%
12	18	45	27	27.00%
13	13	32	19	19.00%
14	8	19	11	11.00%
15	32	50	18	18.00%
16	عم 37	58	21	21.00%
17	25.45	63	18	18.00%
18	28/72	55 gsit	27	27.00%
19	22 1953	तिल निशाप	21	21.00%
20	15	35	20	20.00%
21	33	42	9	9.00%
22	33	49	16	16.00%
23	40	55	15	15.00%
24	55	72	17	17.00%
25	38	52	14	14.00%
26	27	48	21	21.00%
27	43	61	18	18.00%
28	32	49	17	17.00%

Student	Pretest Scores (Full	Posttest Scores	Increase in	%
ID	Score=100)	(Full Score=100)	test Scores	Difference
29	9	26	17	17.00%
30	45	60	15	15.00%

Table 4.2 Pretest & Posttest scores of the sample group (Cont.)

When comparing the raw scores of the pretest and of the posttest, the results showed that all students' posttest scores were higher than those of the pretest. Based on the scores obtained in the pretest and posttest, the following comparisons were made as follows:

## 4.1.3 Pretest-Posttest Comparison

Figure 4.1 below represents the pretest and posttest scores of the participants. As shown in the figure, the green line represents the pretest scores and the blue line represents the posttest scores. Thus, it was clear that all participants' scores improved in the posttest, which confirmed that the use of the MOOC helped to improve students' achievement in the Careers Guidance course.

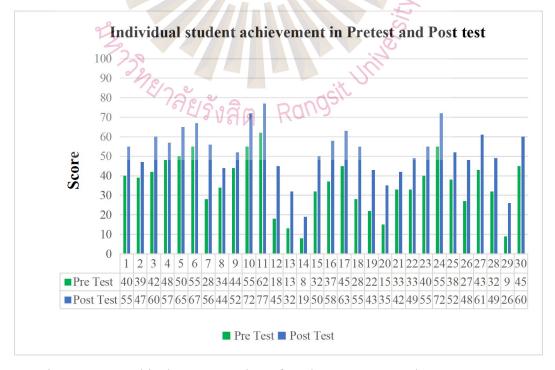


Figure 4.1 Graphical representation of students' pretest and posttest scores

In addition, Figure 4.2 below shows the mean scores of the pretest and posttest, which were 35.67 and 52.2. The mean score of the posttest was higher than the mean score for the pretest. The posttest scores represented by the blue bar confirmed a slight increase of 16.53 points compared to the pretest scores represented by the green bar. Therefore, it may be conclude that each individual student made improvement in the posttest and obtained a higher score after the use of MOOC.

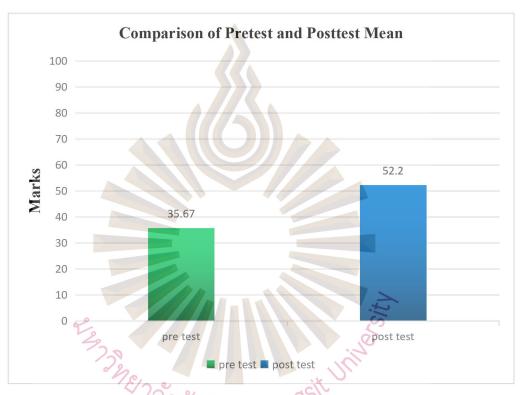


Figure 4.2 Comparison of pretest and posttest mean

# 4.2 Analysis of Focus Group Interview

This section outlines the responses concerning the attitude of students collected via the focus group interview. The data obtained was analyzed using a thematic analysis technique. The researcher decided to use this method in order to collect the in-depth data on students' attitude within a short timeframe. In addition, the data collected in this manner supplemented and supported the data collected from the questionnaire.

As a consequence, after taking the Careers Guidance course through the MOOC, 15 participants from the sample group voluntarily answered six questions through the focus group interview. Participants were divided into three groups of five. The collected responses were systematically organized and analyzed into three main categories. Part A: interest and motivation, Part B: attitudes toward using MOOC education, and Part C: quality of the course. A comprehensive analysis of each cohort is provided below:

## 4.2.1 Interest and Motivation

Based on students' responses, an overall positive attitude towards MOOC in Careers Guidance classes emerged. A majority of the participants said that the course was engaging and contained a lot of practical career knowledge. The free class time and the ability to watch the course repeatedly allowed some students to practice for interviews and review the course whenever they wanted. They also mentioned that the video tutorials in the course helped them remember the course more. Several participants also mentioned that the MOOC platform had a great deal of materials for this course, which enriched their learning. Overall, the course was more engaging than a traditional course. All of the data presented above were taken from the students' responses as follows.

"The explanation of employment policies in the course was very helpful to me, and the electronic version of the manual is also available to me on my cell phone at any time." (Student 2, Group 1).

"I liked the lecture on employment planning in the course, which gave me a lot of inspiration to design my own career path." (Student 3, Group 2).

"I tried to interview my classmates as an interviewer in the mock interview and it made me understand more about interviewing." (Student 4, Group 3).

## 4.2.2 Attitudes toward using MOOC education

The majority of students indicated that MOOC were better than the traditional instruction. While students perceived that the traditional classroom of Careers Guidance courses provided insufficient practice time, which led them to believe that traditional classes were more theoretical; MOOC gave them more time to practice; teachers could deploy practice assignments remotely such as mock interviews; and the students had access to a richer set of course resources. These were supported by the students' responses below.

"The MOOC approach clearly makes me more motivated to take the class than a traditional classroom." (Student 1, Group 1)

"I usually enjoy watching TED, and the MOOC teaching makes me feel like I'm watching TED, with knowledge and fun at the same time." (Student 4, Group 2)

"More learning content, more practice time, I like the MOOC teaching style." (Student 2, Group 3)

# 4.2.3 Quality of the course

The students overwhelmingly agreed that using the MOOC was helpful. Through the use of this technology, the students believed that the course could go beyond the traditional classroom medium and utilize a variety of teaching methods such as videos, cases, etc. A digital version of the manual should also be provided to the students at the end of the class, so they would learn from any location at any time. The excerpts below supported this theme.

"After studying with the MOOC, I have a clear understanding of the interview process in general and the materials I need to prepare." (Student 4, Group 1)

"The course is significantly more engaging than the traditional classroom lectures, so my memory is deeper and I don't easily forget the content in the classroom." (Student 5, Group 2)

"I often watch the video of the teaching for a while before going to bed, and over time, the knowledge is deeply engraved in my brain." (Student 1, Group 3)

Consequently, the analysis above showed that students found MOOC beneficial to study the Careers Guidance Course. Most students who shared their overall impressions indicated that MOOC greatly improved their learning efficiency and made them more interested in learning. All of the data presented here remarkably addressed research objective 2.

# 4.3 Questionnaire Data Analysis

A five-point Likert scale was used to collect quantitative data on students' attitude towards the use of MOOC in Careers Guidance classes, where 1 represented strongly disagree and 5 represented strongly agree. The questionnaire contained 15 items divided into three parts: Part A: Achievement-related items, Part B: Course-related items, and Part C: MOOC-related items. The questionnaire was given to all 30 participants. In the analysis of the survey results, descriptive statistics (mean and standard deviation) was used. In the mean score interpretation, 4.21-5.00 was in the highest level, 3.41-4.20 was the high, 2.61-3.40 was the moderate, 1.81-2.60 was the low, and 1.00-1.80 was the lowest, respectively.

As shown in Table 4.3, the mean scores and standard deviations reflected students' responses of Part A, Achievement-related items. The highest mean score 3.60 was rated for Item 3, "Has your career planning level improved?" which fell within the range of a five-point Likert scale indicating a "High" level. While the mean scores of

Items 2 and 5 were relatively low, the interpretation of the mean scores showed that students rated Part A of the questionnaire, Achievement-related, as High (Mean=3.43).

Table 4.3 Mean and Standard Deviation (SD): Part A- Achievement-related (N=30)

	Part A- Achievement-related	Mean	SD	Interpretation
1	Has your employment level increased?	3.40	.770	Moderate
2	Has your interview level improved?	3.37	.718	Moderate
3	Has your career planning level improved?	3.60	.724	High
4	Has your workplace communication level improved?	3.43	.817	High
5	Did you have an optimistic mindset about the employment situation before that?	3.37	.850	Moderate
	Average	3.43	.756	High

Below is Table 4.4, which shows the mean and the standard deviation of the student's scores for Part B: Course-related items. Based on the data, Item 8, "Would you recommend this course to a classmate, a friend, or an underclassman?" was rated with the highest mean score of 3.57; Item 10, "How did you like the pattern of different teachers teaching different chapters?" was rated the lowest mean score of 3.33. The average mean score of this part was 3.47 which still fell within the "High" range. Therefore, this was evident that the students had positive attitude towards the use of MOOC on their achievement on the Careers and Guidance course.

Table 4.4 Mean and Standard Deviation (SD): Part B-Course-related (N=30)

	Part B - Course-related	Mean	SD	Interpretation
6	Your overall evaluation of the class.	3.47	.681	High

Table 4.4 Mean and Standard Deviation (SD): Part B-Course-related (N=30) (Cont.)

	Part B - Course-related	Mean	SD	Interpretation
7	Did the class serve as a career guide for you?	3.47	.776	High
8	Would you recommend this course to a classmate, friend, or underclassman?	3.57	.626	High
9	Did you find the lesson on employment planning in this course useful?	3.53	.730	High
10	Did you like the pattern of different teachers teaching different chapters?	3.33	.547	Moderate
	Average	3.47	.672	High

Table 4.5 below illustrated the mean scores and standard deviations of Part C, students' attitudes towards MOOC-related items. The majority of students affirmed that the MOOC was helpful in improving their careers guidance course grades. The mean score of 3.43 was at the "High" level. Item 11, "Did you like multimedia teaching?" was rated with the highest mean score of 3.53 whereas Item 15, "Did you find the instructor of this course helpful in communicating with you in the MOOC system after class?" was rated with the lowest mean score of 3.23. However, the overall mean score in his part was still in a "High" level. Hence, it can be claimed that the students had positive attitude towards the use of MOOC in the Careers and Guidance course.

Table 4.5 Mean and Standard Deviation (SD): Part C-MOOC-related (N=30)

	Part C-MOOC-related	Mean	SD	Interpretation
11	Did you like multimedia teaching?	3.53	.819	High
12	Did you think the MOOC has had a	3.43	.774	
	positive impact on your learning?	51.6	.,,.	High

Table 4.5 Mean and Standard Deviation (SD): Part C-MOOC-related (N=30) (Cont.)

	Part C-MOOC-related	Mean	SD	Interpretation
13	Did you think the MOOC will increase the time you spend	3.47	.776	
	communicating with your teachers?	3.47	.770	High
14	Did you think the MOOC will increase your self-practice time?	3.50	.731	High
15	Did you find the instructor of this course helpful in communicating with you in the MOOC system after class?	3.23	.679	Moderate
	Average	3.43	.756	High
	Overall Mean & SD for all 15 items	3.44	0.735	High

By examining each part mentioned above, Part B: Course-related items was rated with the highest score with a mean of 3.47 (SD=0.672), while Part A and C were similarly rated the lower mean scores of 3.43 and standard deviations of 0.776 and 0.756, respectively. Nevertheless, considering the overall mean score of 3.44, it was concluded that the students in a sample group had positive attitude towards the use of MOOC in their Careers and Guidance course.

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#### **CHAPTER 5**

#### CONCLUSION, DISCUSSION AND RECOMMENDATIONS

This chapter provides the summary of the study and the contents are presented in the following order:

#### 5.1 Conclusion

The two research objectives were stated for this study:

- 1) To compare the learning achievement in a Careers Guidance course before and after the use of MOOC by Year 3 university students in Heilongjiang Province, China.
- 2) To examine Year 3 university students' attitude towards the use of MOOC in a Careers Guidance course in Heilongjiang Province, China.

This research was conducted using both quantitative and qualitative methods in Heihe University students in Heilongjiang Province, China by applying pretest, posttest, questionnaire and focused group interview. The following conclusions were drawn after analyzing the data collected through a mixed mode.

#### 5.1.1 The Result of Pretest and Posttest Data Analysis

The first objective of the study was to improve learning achievement in a Careers Guidance course after the use of MOOC by Year 3 university students in Heilongjiang Province, China. Next, the result of the pretest and posttest were analyzed using paired sample t-test to compare the difference between the sample group's learning achievements. With MOOC, students were free to select when and where they wished to study. The courses were available for anyone anytime; they were

repeatable; there were a lot of resources available for learning; and students were able to watch courses created by various teachers anytime.

In addition, the students were able to access the content at any time and from anywhere using a computer or any mobile device. Considering employment was typically ongoing, watching at any time helped provide students with an opportunity to review knowledge such as interview questions and what they needed to do in a career. For this reason, students' progress as they worked on their career was evident. Below is additional detail of the conclusion regarding the findings of the study.

The Paired Sample T-test statistics analysis of achievement scores revealed a higher mean score in the posttest ( $\bar{x}$ =52.20, SD=14.04) than that of the pretest ( $\bar{x}$ =35.67, SD=13.21) with the mean difference of 16.53. The higher mean of the posttest indicated a positive impact of MOOC in improving students' learning achievement in a Careers Guidance.

- 1) The highest and the lowest scores out of 30 in the pretest were 62 points and 8 points, respectively. While the highest and the lowest scores in the posttest were 77 points and 19 points, respectively. Through these difference in scores of the pretest and of the posttest, it suggested that the highest score of the posttest was higher than the pretest score by 15 points. The lowest score of the posttest was also higher than the lowest score of the pretest by 11 points.
- 2) The majority of participants, 18 out of 30 participants from the sample group scored more than 50 out of 100 points in the posttest. Whereas in the pretest only 5 students scored 50 and above out of 100 points.
- 3) All the 30 students scored higher on the posttest than on the pretest. The improvement scores ranged from 8 to 28 points.

4) Based on the above quantitative data analyses, it was evident that the students' test scores improved on the posttest. In addition, the results clearly demonstrated that the use of a MOOC significantly improved the performance of third-year university students in Careers Guidance course in Heilongjiang Province, China.

#### 5.1.2 The Result of Focus Group Interview Analysis

The second objective of the study was to examine University students' attitudes towards the use of MOOC in a Careers Guidance class in Heilongjiang Province, China. Focus groups interview sessions were conducted with three groups of students, each consisting of five students, to collect the required qualitative data.

The sample group consisted of only 15 students, who voluntarily participated in interviews. A thematic analysis was performed on the interview data after recording, transcription, interpretation, and analysis. Students' attitude towards using MOOC to improve their performance in Career Guidance courses were positive according to the study.

- 1) All students claimed that they enjoyed using the MOOC for their career guidance courses. This was evident from their responses collected through questionnaires and focus group interviews.
- 2) Most of the students believed that the MOOC could facilitate learning because it could provide the latest employment policies. They also believed that repeated viewing of MOOC courses facilitated them to review relevant knowledge at any time, especially policies and techniques for employment. In addition, some of them said that videos as a format could deepen their impressions and make part of their knowledge remembered more firmly.

- 3) Some students also thought that the video assignments at the end of the class were good for them to practice the interview process so that they could better learn a lot of knowledge that needed to be practiced.
- 4) Students were motivated by their high scores on the post-test and expressed a strong desire to watch more MOOC in the future. in addition, some students wanted other teachers to use MOOC as well, as they made learning lively and interesting.

#### 5.2 Discussion

As mentioned above, the study had two main findings. The first finding was that the use of MOOC improved learning achievement in a Careers Guidance course by Year 3 university students in Heilongjiang Province, China. The second finding was concerning the students' positive attitude towards the use of MOOC in a Careers Guidance course. The following discussion intended to present the findings in detail and explain how they answered the research questions proposed in this study.

## 5.2.1 Students' Careers Guidance Achievement

The results of the study showed that using a MOOC to teach a Careers Guidance course improved students' learning performance. The results of this study were also promising in that 18 of the 30 students scored 50 and above out of 100 on the posttest,. The mean score on the posttest ( $\bar{x}$ =52.20) was 16.53 points higher than the pretest ( $\bar{x}$ = 35.67). In addition, a significant score difference was achieved by student number 8. This student scored 28 points in the pretest and 56 points in the posttest, an improvement of 28 points. Thus, the improvement in student performance indicated that the use of the MOOC had a positive impact on student performance in the Careers Guidance course. Thus, all of the above findings were reliable answers to the first research question.

#### 5.2.2 Students' Attitude

To collect quantitative data to examine the students' attitude towards using MOOC in Careers Guidance classes, a five-point Likert scale questionnaire was administered. The questionnaire was distributed to all 30 participants. The survey results were analyzed using descriptive statistics (mean and standard deviation). The mean scores were ranked as the highest at 4.21-5.00, high at 3.41-4.20, moderate at 2.61-3.40, low at 1.81-2.60, and lowest at 1.00-1.80. The discussion of the results from the questionnaire can be stated below.

- 1) The majority of questionnaire items were rated "High" and "Moderate" with 77% of the former and 33% of the latter. None of the items were rated as strongly disagree.
- 2) The results of the descriptive statistical analysis of the questionnaire indicated that students had positive attitude towards using MOOC in their career guidance classes. Most importantly, none of the items was rated as "strongly disagree", which was strong evidence of positive student attitude of using MOOC in the course.
- 3) Most students also agreed that regular use of the MOOC would give them a better grasp of career policies and employment skills.

The results of the study also indicated that 78% of the students found that MOOC was very suitable for the courses and they had an enjoyable experience with them. In addition, Zhang (2014) indicated that MOOC with multiple teaching styles in the classroom would be more engaging for students and observed that students could still achieve better retention after the class. Another study by Deng (2015) on the use of MOOC as a teaching method to teach students in a career guidance course showed that more than 80% of students agreed that this method was beneficial to the performance of the course. According to Xu (2016), MOOC learners must have

enough practice process to master this course, and using MOOC can be a good way to increase students' practice time. In addition, the interview results showed that students found the real videos on MOOC more convincing and impressive, allowing them to learn the whole course more easily.

#### 5.3 Recommendations

Based on the findings and conclusions made from the study, the following recommendations are proposed:

#### 5.3.1 Recommendations for Implementation

- 1) The use of MOOC has been found to enhance the Careers Guidance performance of the students in their third year of college. Consequently, MOOC may be utilized for the teaching of this course in other institutions as well.
- 2) It is recommended that other Careers Guidance instructors use MOOC as an alternative learning method to teach Careers Guidance courses.
- 3) MOOC can also be used in other fields since they provide numerous materials, along with the potential to analyze whether they have a similar effect on student learning. In addition, they can also be used as a complement to traditional classroom instruction.

#### 5.3.2 Recommendations for Future Research

The following recommendations are for any interested researchers to take into account before doing any similar studies in the future.

1) This study was limited to only 30 students at Heihe University in Heilongjiang Province, China. Therefore, a similar study may be conducted in a

larger sample in a different region of China, which would be useful for replication and help to validate and ensure the reliability of the conclusions drawn in this study.

- 2) This study was limited by the time and was conducted over a period of one month. Therefore, further studies over a longer period of time are recommended in order to obtain more reliable and significant results.
- 3) Further similar studies could be conducted by including different schools located in different geographical locations in the country.
- 4) Similar studies can also be conducted by using MOOC for other subjects.
- 5) For the purpose of comparative study, this study can be repeated to examine the efficacy of MOOC in different schools in different regions.

All details regarding the data and the findings of the study have been presented. Before concluding this section, we noted that MOOC have had a positive impact on the students' performance in and satisfaction towards Careers Guidance courses. Teachers and students in China and around the world may find MOOC to be an alternative and innovative method of teaching and learning this course. In addition, MOOC have the potential to be promoted for more effective Careers Guidance teaching and learning, as well as other related fields of research.

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#### Certificate of Approval

Subject: Approval to collect data for M Ed thesis

Dear Sir/Madam,

I'm currently enrolled in te master of education in curriculum and instruction, at Rangsit
University, Thailand. I am conducting a research on the "THE APPLICATION OF MOOC FOR
CAREERS GUIDANCE OF YEAR 3 UNIVERSITY STUDENTS IN HEILONGJIANG
PROVINCE, CHINA". This research requires students participation. The instruments involved
during the study pretest and postttest, questionnaire for obtaining the required data. Therefore, I
would like to seek permission from the administration to allow me to collect data at this school
where the names and identities of students will be kept confidential and undisclosed.

Yours sincerely

Mingxue Li, Student

Rangsit University, Thailand.

Since the study requires data for analysis purposes, Mingxue Li would collecting data from this school and you are kindly requested to allow him to collect data with the following conditions.

Providing research participants with information to make an informed decision as to whether to take part in research (informed consent).

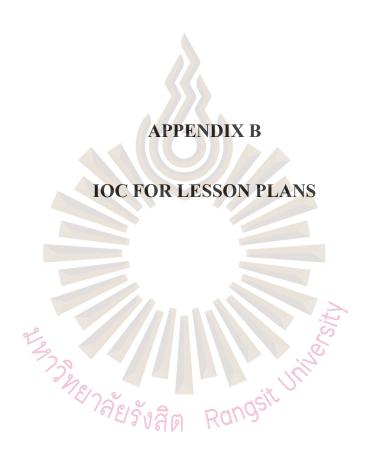
Follow the prior mentioned document have been reviewed and approved by the administration of Heihe University.

Signature:

Date: 221.12.3

Heihe University, Administrative Departm

No.1 College Road, Heihe City, Heilongjiang Province 0456-6842222



## **Item Objective Congruence for Lesson Plans**

Rate +1, if the item clearly matches the stated objectives.

Rate 0, if the item is unclear or unsure whether the measures meet the stated objectives.

Rate -1, if the item does not clearly match the stated objectives.

Item	Attributes	Expert	Expert	Expert	Average	congruence
No	No Attributes		2	3		
1	Lesson plan 1	+1	+1	+1	+1	Congruent
	pian i					
	Lesson	+1	+1	+1	+1	Congruent
2	plan 2					
	Lesson	+1	+1	+1	+1	congruent
3	plan 3					
	Lesson	+1	+1	+1	+1	congruent
4	plan 4				Sity	
Overall	Average	+1	MRZ	" Uril	Ö	Congruent
		720.0		SIL		

# APPENDIX C

# IOC FOR LEARNING ACHIEVEMENT TESTS



## **Item Objective Congruence for Learning Achievement Test**

Rate +1, if the item clearly matches the stated objectives.

Rate 0, if the item is unclear or unsure whether the measures meet the stated objectives.

Rate -1, if the item does not clearly match the stated objectives.

Sl No.	Item Test No.	Expert	Expert	Expert	Average	Congruence
		1	2	3		
1.	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 1					
2	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 2					
3	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 3					
4	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 4					
5	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 5	MAI.			sity	
6	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 6	741	BB.	July	•	
7	Multiple Choice	+1	+1 Ranc	Si\+1	+1	Congruent
	Question 7	ग्रमल	Rum			
8	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 8					
9	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 9					
10	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 10					
11	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 11					

# IOC FOR LEARNING ACHIEVEMENT TESTS (Cont.)

Sl No.	Item Test No.	Expert	Expert	Expert	Average	Congruence
		1	2	3		
12	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 12					
13	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 13					
14	Multiple Choice	+1	0	+1	0.67	Congruent
	Question 14					
15	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 15					
16	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 16					
17	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 17					
18	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 18					
19	Multiple Choice	+1	+1	+1	<del>1</del> +1	Congruent
	Question 19				2	
20	Multiple Choice	+1	+1	+1/1	+1	Congruent
	Question 20	25.56	Dang	Sit		
21	Multiple Choice	* V <sub>+</sub> ¶ 191	+1	+1	+1	Congruent
	Question 21					
22	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 22					
23	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 23					
24	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 24					

# IOC FOR LEARNING ACHIEVEMENT TESTS (Cont.)

Sl No.	Item Test No.	Expert	Expert	Expert	Average	Congruence
		1	2	3		
25	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 25					
26	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 26					
27	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 27					
28	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 28					
29	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 29					
30	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 30					
31	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 31				7	
32	Multiple Choice	+1	+1	+1	<del>1</del> 2+1	Congruent
	Question 32				2	
33	Multiple Choice	+1	+1	00	0.67	Congruent
	Question 33	15,320	Pan	sit		
34	Multiple Choice	4 149 191	₽ħ.	+1	+1	Congruent
	Question 34					
35	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 35					
36	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 36					
37	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 37					

# IOC FOR LEARNING ACHIEVEMENT TESTS (Cont.)

Sl No.	Item Test No.	Expert	Expert	Expert	Average	Congruence
		1	2	3		
38	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 38					
39	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 39					
40	Multiple Choice	+1	+1	+1	+1	Congruent
	Question 40					
41	Subjective short	+1	+1	+1	+1	Congruent
	answer question		0.0			
	41					
42	Subjective short	+1	+1	+1	+1	Congruent
	answer question	111				
	42					
43	Subjective short	+1	+1	+1	+1	Congruent
	answer question					
	43	////				
44	Subjective short	+1	+1	+1	+1	Congruent
	answer question	74	BB.	Ini		
	44	200	2400	sit		
Ove	erall Average	ग्रमा	Kan <sup>0</sup>	985		Congruent



## **Item Objective Congruence for questionnaire**

Rate +1, if the item clearly matches the stated objectives.

Rate 0, if the item is unclear or unsure whether the measures meet the stated objectives.

Rate -1, if the item does not clearly match the stated objectives.

S1 No.	Items	Expert	Expert	Expert	Avg	Congruenc
		1	2	3		e
1.	Your overall	+1	+1	0	0.67	Congruence
	evaluation of the					
	class.					
2.	Did the class serve as	+1	+1	+1	+1	Congruence
	a career guide for					
	you?					
3.	Did you have an	+1	+1	+1	+1	Congruence
	optimistic mindset					
	about the employment					
	situation before that?	MILL		1.2		
4.	Would you	+1	+1	+1	+1	Congruence
	recommend this			init		
	course to a classmate,		asit	0.		
	friend, or	าสิต โ	Sauda			
	underclassman?					
5.	Did you find the	+1	+1	+1	+1	Congruence
	lesson on employment					
	planning in this					
	course useful?					
6.	Did you like the	+1	+1	+1	+1	Congruence
	pattern of different					
	teachers teaching					
	different chapters?					

# IOC FOR QUESTIONNAIRE (Cont.)

S1 No.	Items	Expert	Expert	Expert	Avg	Congruenc
		1	2	3		e
7.	Did you like	+1	+1	+1	+1	Congruence
	multimedia teaching?					
8.	Did you think the	+1	+1	+1	+1	Congruence
0.	MOOC has had a	' 1	' 1	' 1	' 1	Congruence
	positive impact on					
0	your learning?	+1	+1	+1	+1	C
9.	Did you think the MOOC would	71	+1	+1	+1	Congruence
	increase the time you					
	spend					
	communicating with					
	your teachers?					
10	Did you think the	+1	+1	+1	+1	Congruence
	MOOC would	MARI		一		
	increase your			5/2		
	self-practice time?			idi		
11.	Did you think the	+1	+1	+1	+1	Congruence
	current employment	งสิต '	Kauda,			
	situation is					
	optimistic?					
12.	Did you think this	+1	+1	+1	+1	Congruence
	course would help					
	you to get a job?					
13.	How did you rate the	+1	+1	+1	+1	Congruence
	school you are					
	attending?					

# IOC FOR QUESTIONNAIRE (Cont.)

S1 No.	Items	Expert	Expert	Expert	Avg	Congruenc
		1	2	3		e
14.	How did you rate	+1	+1	+1	+1	Congruenc
	the instructor of this					e
	course?					
15.	Did you find the	+1	+1	+1	+1	Congruenc
	instructor of this					e
	course helpful in					
	communicating with					
	you in the MOOC					
	system after class?					
О	verall Average		0.97	78		Congruenc
						e



# APPENDIX E

# IOC FOR FOCUS GROUP INTERVIEW



## **Item Objective Congruence for focus group interview**

Rate +1, if the item clearly matches the stated objectives.

Rate 0, if the item is unclear or unsure whether the measures meet the stated objectives.

Rate -1, if the item does not clearly match the stated objectives.

S1 No.	Items	Expert	Expert	Expert	Avg	Congruen
		1	2	3		ce
1.	How effective do	+1	+1	+1	+1	Congruenc
	you think it is to use					e
	MOOC to study					
	careers guidance?					
2.	Is using MOOC to	+1	+1	+1	+1	Congruenc
	study careers					e
	guidance course					
	more attractive to					
	you?		4.6			
3.	What do you think	+1	+1	+1 :5	+1	Congruenc
	about the					e
	attractiveness of			NUIT		
	MOOC education?	ෘතික 1	sangsi <sup>r</sup>	6		
4.	Do you think	v e1 ₹1	+1	+1	+1	Congruenc
	MOOC education is					e
	effective in teaching					
	careers guidance					
	course?					

## IOC FOR FOCUS GROUP INTERVIEW (Cont.)

S1 No.	Items	Expert	Expert	Expert	Avg	Congruen
		1	2	3		ce
5.	How do you think	+1	+1	+1	+1	Congruenc
	the teaching of					e
	careers guidance					
	courses using					
	MOOC can help					
	you improve your		)			
	employability?					
6.	Share your general	+1	+1	+1	+1	Congruenc
	opinion on the use					e
	of MOOC in careers					
	guidance courses?					
O	verall Average		+1			Congruenc
						e

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#### **LESSSON PLAN 1**

Subject: Careers Guidance Class: Date:

**Time:** 100 minutes (50 minutes/1 session) Topic: Career and Self

**Learning Outcomes:** By the end of the lesson, every student will be able to:

➤ Learn to check local employment policies.

Learn how to deal with issues that arise in the workplace.

> Learn to prepare well for the interview.

Learn to do well in interpersonal communication at work.

#### LESSSON PLAN 1 Session 1 (50 minutes)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Questions	Pre-viewing:	5minutes
	Students need to enter the class with the	
	following questions and try to get their	
	answers by the end of the class:	
	* Where should I go if I want to learn more	
	about local labor policies?	
	* What should I do if I run across	
حيا	difficulties throughout my job search?	
3720	* If I am having trouble with my job search,	
1/2/2	where should I go to find a solution?	
	registran Rangi	

## LESSSON PLAN 1 Session 1 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Introduction to career	Students will watch a video on how to	20minutes
Policy Handbook	obtain the career policy handbook and the	
	handbook's major features. The primary	
	contents are employment policies,	
	employment channels, common	
	employment problems, and how to resolve	
	them.	
	Additionally, students were provided with a	
	link to download the electronic version of	
	the manual during class, and they were	
	instructed to carefully read the manual's	
	contents after class.	
Introduction to China's	Students will view a video presenting	15minutes
Labor Law	Chinese labor law and will become familiar	
	with three labor regulations. The first law	
	establishes a legal rest period; the second	
مين المين	establishes a legal salary system; and the	
7)?	third establishes a legal means of defending	
Ely	their rights. Finally, students will be	
	required to conduct independent research	
	on basic labor law at the conclusion of the	
	session.	

## LESSSON PLAN 1 Session 1 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Classroom tests	Students will be asked 5 questions and will	10minutes
	write down their answers on paper and	
	upload them to the MOOC system for the	
	instructor to review.	
	* How to find out about local employment	
	information?	
	* What are the current methods for finding	
	work? Provide two or more examples.	
	* What should I do if I come across a	
	company that does not adhere to the legal	
	criteria for contract signing?	
	* Is it necessary to have a career plan	
	before looking for a career and why?	
	* What career do you want to pursue and	
	why?	

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## LESSON PLAN 1 Session 2 (50 minutes)

Lesson Components:	Teacher/Students' Activity(s)	Time
Questions	Pre-viewing:	5minutes
	Students need to enter the class with the	
	following questions and try to get their	
	answers by the end of the class:	
	* What to do before the interview?	
	* Do you believe that personal interaction is	
	necessary at work?	
	* What do you do if you're asked a question	
	during an interview that you're unfamiliar	
	with?	
Preparation for the	Students will view a video that details the	20minutes
interview	process of learning to interview, including	
	the following:	
	You should familiarize yourself with the	
	company before the interview.	
	Prepare your resume and interview materials	
92	thoroughly.	
7720	Before the interview, familiarize yourself	
MEIN	with the position for which you are applying.	
/	Prepare your interview attire in advance.	
	Prepare the examiner's questions in advance.	

## LESSSON PLAN 1 Session 2 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Introduction to	Students will view a video that teaches them	15minutes
interpersonal	how to interact with coworkers, including	
communication at work	the following:	
	Offer to assist coworkers, but do not allow	
	the offer to cause a delay in your task.	
	Maintain a cheerful attitude and enthusiasm	
	at work, and be eager to assist others (to the	
	extent you are able to do so).	
	Always maintain a humble demeanor with	
	your colleagues and avoid	
	self-righteousness.	
	Maintain silence while working and put your	
	thoughts into action.	
	Take care with your tone of voice when	
	speaking with colleagues, and avoid	
	speaking to them in a reproachful tone unless	
2	there are compelling reasons to do so. Pay	
322	attention to your tone of voice and treat	
1/2/-	others with respect.	
/	Don't place the blame for things done	
	incorrectly on others, and place the credit for	
	things done well on Rao on yourself.	
	Consider the outcomes of collaborative	
	efforts.	

#### LESSSON PLAN 1 Session 2 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Classroom tests	Students will be asked 5 questions and will	10minutes
	write down their answers on paper and	
	upload them to the MOOC system for the	
	instructor to review.	
	* When you're at an interview and you don't	
	know the answer to a question, what do you	
	do?	
	* Describe two or more strategies for	
	managing relationships with coworkers.	
	* What kind of preparation do you do before	
	the interview?	
	* What do you do at work if you're assigned	
	a task you don't want to accomplish, and	
	why?	
	* What do you do to prepare for an interview	
	and why?	

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#### **LESSSON PLAN 2**

Subject: Careers Guidance Class: Date:

**Time:** 100 minutes (50 minutes/1 session) Topic: Understanding Careers in Depth

**Learning Outcomes:** By the end of the lesson, every student will be able to:

Develop a personal career plan.

➤ Produce a resume.

➤ Determine the position for which you wish to apply.

#### LESSON PLAN 2 Session 1 (50 minutes)

<b>Lesson</b> Components:	Teacher/Students' Activity(s)	Time
Questions	Pre-viewing:	5minutes
	Students need to enter the class with the	
	following questions and try to get their	
	answers by the end of the class:	
	* Are you familiar with the process of	
	creating your own resume?	
	* What should I pay attention to during the	
	interview?	

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## LESSSON PLAN 2 Session 1 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Resume Creation	Students will learn that a typical personal	20minutes
	resume includes the following:	
	Name, gender, date of birth, ethnic origin,	
	marital status, and contact information are	
	required.	
	From junior high school to the highest level	
	of education, a chronological list of schools,	
	majors, and major courses is provided.	
	Participated in a variety of professional	
	knowledge and skills training sessions.	
	Work experience: A chronological listing of	
	all employment records, including the name	
	of the company/unit, position, appointment	
	and departure dates, the duties of each	
	position held, the nature of work, and so	
	forth, should be highlighted; this is the	
900	resume's essence.	
2 3 3 NE/-	Other attributes include personal strengths	
1/2/-	and interests, additional skills, professional	
/	associations, publications and references,	
	and so forth.	
	Additionally, students will be required to	
	create a resume and upload it to the MOOC	
	system after the class.	

## LESSSON PLAN 2 Session 1 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Mock Interview	To begin, students will view a video of an	15minutes
	in-class interview. After class, students will	
	be asked to pair up with another student to	
	conduct a mock interview. The interview	
	position and interview questions will be	
	created by the students, and both parties will	
	act as the interviewer and job seeker,	
	respectively, with the entire process being	
	recorded and uploaded to the MOOC system.	
Classroom tests	Students will be asked 5 questions and will	10minutes
	write down their answers on paper and	
	upload them to the MOOC system for the	
	instructor to review.	
	* What should be done before the interview?	
	* Is it necessary for me to be aware of my	
	personal tone of voice during the interview,	
200	and if so, why?	
3728	* Write five questions that you may meet	
1/2/-	during the interview.	
LE SONE!	* Do you believe that a resume with more	
	content is better, and if so, why?	
	* Do you believe it is necessary to dress	
	appropriately for an interview and why?	

## LESSSON PLAN 2 Session 2 (50 minutes)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Questions	Pre-viewing:	5minutes
	Students need to enter the class with the	
	following questions and try to get their	
	answers by the end of the class:	
	* What career do you want to pursue?	
	* What are your plans for the future of your	
	career?	
Career Choice	Students will be taught how to identify a	20minutes
	career they like, covering the following	
	points:	
	Finding your inner strengths.	
	Find a promising and interesting industry.	
	Determine the position they want to enter.	
	Prepare well for entry into the industry.	
	At the end of the class students have to write	
	down the career they want to pursue and	
2	write at least two reasons why they want to	
7)2	do it and upload it to the MOOC system.	
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## LESSSON PLAN 2 Session 2 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Career Plan	Students will learn how to develop a	15minutes
	personal career plan that incorporates the	
	following elements.	
	1. Analysis of the industry (current industry	
	status and development trend)	
	2. Examination of one's career (job content,	
	job requirements, development prospects,	
	job matching analysis)	
	3. Analysis of the business (company type,	
	corporate culture, development prospects,	
	development stages, products and services,	
	staff quality, work atmosphere, etc.)	
	4. Regional examination (development	
	prospects of the working city, cultural	
	characteristics, climate, interpersonal	
	relationships, etc.)	
90	Create a career development path for	
3720	yourself using the four points above.	
"MEIT	After the class, students are required to write a career plan (within 3 years, including	
	salary, career) and upload it to the MOOC	
	system.	

## LESSSON PLAN 2 Session 2 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Classroom tests	Students will be asked 5 questions and will	10minutes
	write down their answers on paper and	
	upload them to the MOOC system for the	
	instructor to review.	
	* What skills do you need for the career you	
	want to pursue?	
	* What are the characteristics of the career	
	you want to pursue?	
	* Write five of your own strengths.	
	* What career do you want to have and why?	
	* Is it important to have a career plan and	
	why?	



#### **LESSSON PLAN 3**

Subject: Careers Guidance Class: Date:

**Time:** 100 minutes (50 minutes/1 session) **Topic:** Professional Literacy Enhancement

**Learning Outcomes:** By the end of the lesson, every student will be able to:

➤ Understanding the importance of professional skills.

Learn at least three ways to improve professional skills.

➤ Understanding the importance of interpersonal communication.

Learn how to handle interpersonal interactions at work.

#### LESSON PLAN 3 Session 1 (50 minutes)

Lesson Components:	Teacher/Students' Activity(s)	Time
Questions	Pre-viewing:	5minutes
	Students need to enter the class with the	
	following questions and try to get their	
	answers by the end of the class:	
	* Are you familiar with the skills of the	
	profession you are studying?	
ملي الماري ا	* Do you know how what you learn in	
723	college relates to employment?	
Understanding the	The course will begin with a set of data to	20minutes
importance of	show students that the average grade in four	
professional skills	years of college is directly proportional to	
	the employment rate. This informs students	
	of the importance of professional skills.	
	Then will play a video to explaining the	
	importance of professional skills.	

## LESSSON PLAN 3 Session 1 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
How to improve	Explain three ways to enhance students'	15minutes
professional skills	professional skills.	
	The first is to understand all the example	
	problems in the textbook.	
	The second is to understand in advance the	
	problems that may be encountered in	
	employment by consulting with the teacher.	
	The third is to learn more about your major	
	through online platforms such as MOOC.	
Classroom tests	Students will be asked 4 questions and will	10minutes
	write down their answers on paper and	
	upload them to the MOOC system for the	
	instructor to review.	
	* Why it is important to emphasize	
	professional skills?	
	* Ways to improve professional skills (at	
200	least two).	
3738	* Do you think the choice of career has	
1817	much to do with professional skills?	
,	* Do you think professional skills are what a	
	company values the most, why?	

## LESSSON PLAN 3 Session 2 (50 minutes)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Questions	Pre-viewing:	5minutes
	Students need to enter the class with the	
	following questions and try to get their	
	answers by the end of the class:	
	* Do you have good personal interpersonal	
	skills?	
	* Is human interaction at work important?	
The importance of	Explain to students the importance of human	20minutes
interpersonal	interaction at work, as many work elements	
communication at work	need the help of colleagues to move forward,	
	while many projects need to be completed	
	together.	
	Then will show an introductory video on the	
	importance of interpersonal communication.	



LESSSON PLAN 3 Session 2 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
How to handle	Teach five ways to deal with interpersonal	15minutes
interpersonal	relationships	
communication at work	1, recognize the position they are in. Do your	
	job well, in order to better dock with others	
	on the job, but also the first step in dealing	
	with relationships.	
	2, good at communication. There is no work	
	in this world without communication with	
	others, good communication can eliminate	
	misunderstandings and conflicts between	
	people, which is conducive to the	
	advancement of work.	
	3, learn to praise others. Everyone is happy	
	to hear others praise themselves, so as a	
	member of the workplace, we must also	
	learn to praise others.	
92	4, the heart of gratitude. Grateful to others,	
723.	grateful for the sense of achievement brought	
PEIT	by work, in order to make you work harder in the workplace.	
	5, to properly refuse. To learn to properly	
	reject others, if a thing you cannot help	
	others, you can politely refuse than promise	
	others but cannot do good.	
	6, more humane. Workplace work will	
	inevitably produce some conflicts, as long as	
	the problem is solved, and does not affect the	
	relationship between people.	

## LESSSON PLAN 3 Session 2 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Classroom tests	Students will be asked 4 questions and will	10minutes
	write down their answers on paper and	
	upload them to the MOOC system for the	
	instructor to review.	
	* Why human interaction at work is	
	important?	
	* How to handle interpersonal interactions at	
	work (at least four points).	
	* Are you an extrovert or an introvert and do	
	you think you need to make a change?	
	* What would you do if you had a	
	misunderstanding with a colleague at work?	



#### **LESSSON PLAN 4**

Subject: Careers Guidance Class: Date:

Time: 100 minutes (50 minutes/1 session) Topic: Career Decision Making

**Learning Outcomes:** By the end of the lesson, every student will be able to:

> Understand the importance of career choice.

➤ Learn how to make the right career choice.

#### LESSON PLAN 4 Session 1 (50 minutes)

<b>Lesson</b> Components:	Teacher/Students' Activity(s)	Time
Questions	Pre-viewing:	5minutes
	Students need to enter the class with the	
	following questions and try to get their	
	answers by the end of the class:	
	* Do you know what industry you want to	
	work in the future?	
	* Is career important to you?	
The meaning of career	Firstly, the definition of career is explained:	20minutes
for each person	Career is the work that people do in society	
مين المين ال	as a means of earning a living; from a social	
223	point of view a career is a social role	
NE/S	acquired by a worker, who undertakes	
,	certain duties and responsibilities for society	
	and is paid accordingly.	
	Then will show a video to explain the	
	meaning of a career to an individual.	

## LESSSON PLAN 4 Session 1 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
The importance of career	Career is very important for a person, it not	15minutes
	only guarantees a normal life, but also	
	reflects the value of one's life.	
	Choosing a suitable career for oneself, one	
	can actively mobilize one's ability and	
	motivation.	
	If you do not choose a suitable career, you	
	will not be able to mobilize your own	
	motivation and realize your life value.	
	This fully illustrates the importance of career	
	Then will play a video to explaining the	
	importance of a career.	
Classroom tests	Students will be asked 3 questions and will	10minutes
	write down their answers on paper and	
	upload them to the MOOC system for the	
	instructor to review.	
مين المين ال	* Do you think career is important?	
723.	* What does the career mean to you?	
NE/S	* If you have received an offer, but you don't	
,	like the job, would you do it? Why?	

#### LESSSON PLAN 4 Session 2 (50 minutes)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Questions	Pre-viewing:	5minutes
	Students need to enter the class with the	
	following questions and try to get their	
	answers by the end of the class:	
	* Do you currently have your future career	
	choice?	
	* Do you know how to make the right career	
	choice?	
The importance of career	Three case studies are used to explain to	20minutes
choice	students the importance of career choices.	
	The first is a case of failed career choice.	
	The second is a case of successful career	
	choice.	
	The third is a case of doing a job you like.	
	Then will show a video explaining the	
	importance of career choice.	

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LESSSON PLAN 4 Session 2 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
How to make the right	Explain five things you need to know about	15minutes
career choice	career choice.	
	1. Self-understanding before choosing	
	Before making a choice, it is very important	
	to know yourself well scientifically, from	
	what you are good at doing, what you are not	
	good at, your education, personality	
	tendency, physical condition, and social	
	resources, etc. to make a systematic	
	self-assessment.	
	2. Career choice is related to life stage	
	If you have a choice, it is better to choose a	
	large platform and mature company at the	
	beginning of graduation than a startup.	
	3. when appropriate to decisively choose to	
	transition	
مين المين ال	4. Be well prepared before choosing	
7)?	5. choose a good career to persevere	
NE/2	The tabooest in a career choice is to keep	
/	changing your career choice because career	
	development requires accumulation, whether	
	it is professional knowledge or industry	
	knowledge or network resources, changing	
	every few years will make your	
	accumulation often return to zero, which is	
	very undesirable.	

## LESSSON PLAN 4 Session 2 (Cont.)

<b>Lesson Components:</b>	Teacher/Students' Activity(s)	Time
Classroom tests	Students will be asked 4 questions and will	10minutes
	write down their answers on paper and	
	upload them to the MOOC system for the	
	instructor to review.	
	* Will you pursue a career that you are good	
	at or a career that you enjoy in the future?	
	* Do you think the choice of career is	
	important and why?	
	* What do you do when you realize you've	
	made the wrong career choice?	
	* How to make the right career choice, (at	
	least three points).	



# APPENDIX G LEARNING ACHIEVEMENT TESTS



Subject: Careers and Guidance Total scores:
100
Name: ID number:
I . Multiple Choice Questions (Two points per question; 80 points in total):
<b>Directions:</b> Each question is followed by four possible answers. Choose the best
answer and write it down on ( ).
1. How many years must graduates come to the school to apply for an employment
report card if they have not applied for one upon graduation or if they need to be
reassigned after applying for an employment report card ( )?
A.1 year
B.2 years
C.3 years
D.4 years
2. The Chinese state should strive to use 3 to 5 years to basically realize that there are
at least a few college graduates in every village and village in the country ( )?
A.1
B.2 C.3 D.4
C.3
D.4
3. The labor contract has ( )
A. Legal binding force
B. Moral binding force
C. Behavioral binding force
D. Criminal binding force
4. For graduates employed in private enterprises, ( ) is the depository of their
accounts and files.
A. Personnel department of the unit
B. Self-care
C. Personnel service institutions at all levels

D. School
5. Which of the following is not the most basic "three risks" of social insurance ( )
A. Pension insurance
B. Medical insurance
C. Industrial injury insurance
D. Unemployment insurance
6. After the graduates leave school, their accounts and files cannot be ( )
A. Put it in the talent market
B. Move it to the official unit
C. Take it in your own hand
D. Go back to your birthplace
7. In addition to the industries restricted by the state, how many years from the date of
registration by the administrative department for industry and commerce are university
graduates engaged in self-employment exempt from administrative fees for
registration, management and licenses ( )?
A. 1 year
B. 2 years
C. 3 years
D. 4 years
8. According to the provisions of China's labor law, the maximum probationary
period should not exceed ( ).
A.1 month
B.3 months
C.6 months
D.1 year
9. The civil service examination, the following does not include ( )
A. language expression
B. organizational skills
C. number-crunching ability
D. logical reasoning

10. From the occasion of wearing clothes, divided into business, social, leisure, the
three categories, the following kind of clothing is not suitable for business occasions to
wear. ( )
A. work clothes
B. Denim
C. military
D. suit
11. Interaction etiquette in a very important principle, called ( ). Its meaning is to
require people in the process of interaction with other people, to make efforts to their
own practical actions, to accept each other, value each other, agree with each other.
A. three A principle
B. harmony principle
C. Top principle
D. respect principle
12. Today, we face a society where work is becoming more and more complex and
the division of labor is becoming more and more detailed. For a collective, a unit or a
country, ( ) spirit is very crucial.
A. dedication
B. team
C. Innovation
D. cooperation
13. ( ) refers to the skills that are acquired mainly in daily life activities and can be
continuously improved.
A. adaptability
B. expressiveness
C. communication skills
D. transferability
14. In medical activities, there are times when ( ) often determines the outcome
rather than the technique.
A. professional ethics
B. professional attitude

C. Clinical experience
D. medical conditions
15. Among the following options, the following are occupations ( )
A. thief
B. construction worker
C. volunteer
D. volunteer traffic counselor
16. China's higher education enrollment rate reached 23%, marking the
transformation of China's higher education from elite education to ( ).
A. Mass education
B. Specialized education
C. Vocational education
D. Education for all
17. The current form of employment for university graduates in China is mainly ( )
A. unified recruitment and distribution
B. two-way selection
C. meeting between supply and demand
D. independent career choice
18. Which of the following does not belong to the aspect of social analysis when
college students make self-orientation ( )
A. Social analysis
B. Family environment analysis van Rong
C. Organizational analysis
D. Interpersonal relationship analysis
19. Which one of the following is not the core capacity of college students' career
planning ( )
A. Know yourself
B. Environment
C. Know your enemy
D. Decision-making

20. According to Saper's career development theory, the process of human career
development is divided into ( ) stages
A. three
B. four
C. five
D. six
21. ( ) a major initiative of China to encourage young intellectuals to go to practice,
to the grassroots and hard areas, and to grow up healthily.
A. Into the village into the community
B. three support
C. township doctors
D. western program
22. Formal occasions to wear formal wear, the color of the general to follow ( )
A. Top principle
B. Harmony principle
C. Three A principle
D. Three color principle
23. The following is the wrong way to do the career test ( )
A. once completed
B. Hold a calm mind, relaxed mood to answer
C. to answer their first sense
D. should choose the correct answer Range
24. The labor contract has ( )
A. legally binding
B. morally binding
C. behaviorally binding
D. criminally binding
25. Which of the following is not an optional way for graduates to settle down ( )
A. for non-agricultural account
B. settled with relatives and friends
C. settled with the work unit collective account

D. attached to the talent center
26. What will the files and accounts of graduates who have not signed the
employment agreement flow to? ( )
A. File to the employer's account back to the place of birth
B. Account to the employer, file back to the place of birth
C. File and account to the employer
D. File and account back to the place of birth
27. Which department of the school is responsible for the transfer of household
registration ( ).
A. Students
B. Student Employment Guidance Service Center
C. Each second-level college
D. Security Office
28. When is the transfer of household registration of graduates usually carried out
( )?
A. Late May
B. Mid-June
C. Late June
D. July-August
29. The training mode on the employment agreement is usually written ( )
A. Commissioned
B. Orientation Rangell
C. Non-directional
D. Management training
30. The specific management right of the account is in ( ).
A. Personnel Bureau
B. District police station
C. Education Bureau
D. Township streets
31. A business plan should make their own factors and () to achieve the greatest
possible fit. Library ( ).

A. social conditions
B. network resources
C. financial resources
D. D. family factors
32. Occupational qualifications are the basic qualities and abilities required to engage
in the profession. About qualification, the following statements are wrong ( ).
A. Qualification is evidence of competence accepted by society, such as MBA, CPA,
registered physician, registered lawyer, etc.
B. Each profession has a distinct occupational qualification model, with fair and
reasonable access norms.
C. A professional certification demonstrates a high level of professionalism.
D. Good professional qualifications are a passport to enter a given professional area.
Correct
33. In 1966, at the 11th International Conference of Experts on Labour Statistics in
Geneva, a revised version of the International Standard Classification of Occupations
(ISCO) was adopted. The International Labour Office divided the occupations into
several major categories ( ).
A. 7
B. 10
C. 8
D. 9
34. Which of the following statements is not a good career occupation ( )?
A. People can earn more money in the short term, the long-term situation is unknown.
B. It is conducive to the development of personal intelligence, giving people a sense of
achievement.
C. It has a broad space for development, to provide support for future development.

D. It is beneficial to the country and society, can make the greatest contribution.

For his career development path, the following is the most reasonable (

35. Xiao Xie graduated from a major university majoring in computer science, he has

a high degree and good professional skills. He is a typical knowledge-based employee.

- A. Engage in grassroots technical work, if the requirements are not met by the company, immediately jump ship.
- B. Dive into technical work, indifferent to external changes.
- C. Engaged in technical research work, while paying attention to improve their management skills, seize the appropriate time to become managers.
- D. None of the above statements are correct.
- 36. Psychological research shows that most of these people have a benign self-representation and self-understanding: "I am a popular person, I like to interact with people". This is an essential skill in interpersonal communication, namely ( ).
- A. defiant self-confidence
- B. self-acceptance
- C. positive psychological cues
- D. A sense of self-worth
- 37. Which of the following expressions should contemporary college students strive to do ( ).
- A. negligent thinking
- B. self-righteousness
- C. positive action
- D. Individualism
- 38. The following statements about resume are correct ( ).
- A. the more contents of a resume the better.
- B. the contents of a resume should be relevant.
- C. a resume does not need data description.
- D. different positions can use the same resume.
- 39. To write a wonderful resume, you need to grasp the main points include which: (1) comprehensive (2) focused (3) concise (4) true ( ).
- A.(3)(4)
- B.(1)(3)(4)
- C.(1)(2)(4)
- D. (1) (2) (3) (4)
- 40. 55% of first impressions come from ( ).

- A. behavior and demeanor.
- B. the content of the conversation.
- C. clothing, hair and other appearance.
- D. voice and tone of speech.

#### II. Subjective short answer questions (5 points per question; 20 points in total).

**Directions:** Please write down your personal opinion based on the question.

- 41. What should be included in a resume?
- 42. What is included in a career plan?
- 43. What will you apply in the workplace that you have learned in school?
- 44. What will you do if you have conflicts with your colleagues?





#### **Survey Questionnaire**

A questionnaire will be distributed to third-year university students, who will serve as the study's sample group. The questionnaire was designed to elicit responses from students regarding their attitudes toward the use of MOOC in Careers Guidance courses. This questionnaire will be kept confidential and used solely for the purposes of this study.

Part I: Demographic Data

1.Direction: Put a tick mark (√) in the brackets.
2.Age: Between 10-12 ( ) Between 13-15 ( ) 16 and above (

Part II: Students' Perception

Mark your level of opinion from 1-5 (strongly agree to strongly disagree) against each statement. The description of each scale 1-5 is as shown in the table below.

Change land a mark (CA) 5 A mark (A) A Navigati (A) 2 Direction (D) 2 Change land		Scale
Strongly Agree (SA)-3 Agree(A)-4 Neutral (N)-3 Disagree(D)-2 Strongly	Strongly Agree (SA)-5 Ag	gree(A)- 4 Neutral (N)-3 Disagree(D)-2 Strongly

Sl No.	Items	SA	A	N	DA	SD
	398/20	5	4	3	2	1
1	Your overall evaluation of the class.					
2	Did the class serve as a career guide					
	for you?					
3	Did you have an optimistic mindset					
	about the employment situation before					
	that?					
4	Would you recommend this course to					
	a classmate, friend, or underclassman?					

## Questionnaire (Cont.)

Sl No.	Items	SA	A	N	DA	SD
		5	4	3	2	1
5	Did you find the lesson on					
	employment planning in this course					
	useful?					
6	Did you like the pattern of different					
	teachers teaching different chapters?					
7	Did you like multimedia teaching?					
8	Did you think the MOOC has had a					
	positive impact on your learning?					
9	Did you think the MOOC would					
	increase the time you spend					
	communicating with your teachers?					
10	Did you think the MOOC would					
	increase your self-practice time?					
11	Did you think the current employment					
	situation is optimistic?		13/2			
12	Did you think this course would help		S. S.			
	you to get a job?	110				
13	How did you rate the school you are					
	attending?					
14	How did you rate the instructor of this					
	course?					
15	Did you find the instructor of this					
	course helpful in communicating with					
	you in the MOOC system after class?					

## **APPENDIX I**

# FOCUS GROUP INTERVIEW QUESTIONS



## **Focus Group Interview**

The focus group interview consisted of six questions that are grouped into three main categories. Part A: interest and motivation; Part B: attitudes toward using MOOC education; and Part C: course quality. To obtain valid and reliable interview data, the responses of respondents were recorded, transcribed, organized, analyzed using thematic analysis, and finally interpreted. The researchers also asked the respondents to review their transcriptions to ensure that they had been accurately transcribed.

**Directions:** In groups of 5, 3 groups, 15 people in total. The students respond to the following questions regarding their attitude towards using MOOC in a Career Guidance course.

### Part A: Interest and motivation

- 1. How effective do you think it is to use MOOC to study careers guidance?
- 2. Is using MOOC to study careers guidance course more attractive to you?

## Part B: Attitudes toward using MOOC education

- 3. What do you think about the attractiveness of MOOC education?
- 4. Do you think MOOC education is effective in teaching?

## Part C: Quality of the course

- 5. How do you think the teaching of careers guidance courses using MOOC can help you improve your employability?
- 6. Share your general opinion on the use of MOOC in careers guidance courses?

# APPENDIX J

# PRETEST AND POSTTEST SAMPLES



科目: 就业指导 姓名: 秋风

一、选择题 (每题 2 分, 共 80 分)

1.毕业生毕业时如没有办理就业报到证或办理了就业报到证后需要改派的,必顺 在几年内来学校办理。( ) C、3年

B、2年 A、1年

D、4年

2.按照"村官计划"的政策要求,国家要争取用3年到5年时间基本实现全国每 个村、每个社区至少有 A 名高校毕业生的目标? (A) B、2名

C、3名

3.劳动合同具有( 4 A、法律约束力

B、道德约束力

C、行为约束力 D、刑法约束

4.毕业生到非公有制企业就业,( 人 是其户口和档案的存放单位。 A、本单位人事部门 B、自行保管 C、各级人事服务机构 D、学校

6.毕业生在离校后, 其户口、档案不可以( A X。

A、放在人才市场 B、迁往正式单位 C、拿在自己手里 D、回生源所在地

7.对高校毕业生从事个体经营的,除国家限制的行业外,自工商行政管理部门登 记注册之日起几年内免交登记类、管理类和证照类的各项行政事业性收费? (人人) A、1年 B、2年 C、3年

8.根据我国劳动法的规定,试用期最长不应超过(A) A、1个月 B、3个月 C、6个月 D、1年

9.公务员的行测能力考试,申论考试两方面,下列不属于行测能力部分的是(人) A语言表达 B组织能力 C数字计算能力 D逻辑推理

10.从服装穿着的场合来讲,分为公务、社交、休闲这三个大类,下面那种服装 不适合公务场合穿着。( Å ) ✓ A 工作服 B 牛仔裝 C 军装 D 套装

11.交往礼仪之中的一条十分重要的原则,叫作(人)。它的含义,是要求人们 在与其他人进行交往的过程中,要努力地以自身的实际行动,去接受对方,重视 对方, 赞同对方。

A三A原则 B和谐原则 CTOP原则 D尊重原则

12.今天,我们面对一个工作越来越复杂,分工越来越细的社会,对于一个集体、 一个单位或者是一个国家,(P)精神都是非常关键的。 A 敬业 B 团队 C 创新 D 合作

13. ( D) 指的是主要在日常生活活动中获得,能不断得到改善的技能。 A 适应能力 B 表达能力 C 沟通能力 D 可迁移能力

14.在医疗活动中,有些时候往往是 ( A )X决定结果,而不是技术决定结果。 A职业道德B职业态度C临床经验D医疗条件

15.下列选项中,属于职业的是(AXA.小偷 B. 建筑工人 C. 志愿者 D.义务交通劝导员

16.我国高等学校毛入学率达到 23%,标志着我国高等教育实现了从精英教育向( b) 转变。 A 大众化教育 B 专业化教育 C 职业教育 D 全民化教育

17.我国现行的大学毕业生就业形式主要是()) A 统招统分 B 双向选择 C 供需见面 D 自主择业

18.下列那一个不属于大学生进行自我定位时社会分析方面( A 社会分析 B 家庭环境分析 C 组织分析 D 人际关系分析

19.下列那一个不是大学生职业生涯规划的核心容(分) A知己 B环境 C知彼 D决策

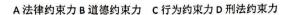
20.按照萨珀职业生涯发展理论,人的职业发展过程分为(人)阶段 A三个 B四个 C五个 D六个

21. (人) 是国家为鼓励青年知识分子到实践中去、到基层和艰苦地区去,经受磨练、健康成长的重大举措。 A 进村进社 B "三支一扶" C 乡镇医生 D 西部计划志愿者服务项目

22.正式场合穿着的正装,其色彩一般要遵循(X. ATOP 原则 B和谐原则 C三A原则 D三色原则

23.下列做职业测试的错误方式是《 BX A 一次完成 B 持平静的心态、放松的心情作答 C 以自己的第一感觉作答 D应该选择正确答案

24.劳动合同具有(



25.下列哪项不是毕业生可选的落户方式 ( A 办理非转农户口 B 落户亲戚朋友 C 落户工作单位集体户口 D 挂靠人才中心

26.未签应聘协议的毕业生,档案、户口将流向什么地方? ( A 档案到用人单位户口回生源 B 户口到用人单位,档案回生源地 C 档案、户口均到用人单位 D 档案、户口均回生源地

27.户口迁移证是由学校哪个部门负责( V ) A 学生 B 大学生就业指导服务中心 C 各二级学院 D 保卫处

28.毕业生户口的迁移通常在什么时候进行(A X A 五月下旬 B 六月中 C 六月底 D 7-8 月份

29.就业协议书上的培养方式一般写(BXA委培 B定向 C非定向 D无

30.户口的具体管理权在(为) A 人事局 B 辖区派出所 C 教育局 D 乡镇街道

31.一份创业规划应该使自身因素和(A))达到最大程度的契合A社会条件 B人脉资源 C资金资源 D家庭因素

32.职业资质就是从事本职业的基本素质和能力要求。关于资质,下列说法错误的是(为)

A 资质是能力被社会认同的证明,如 MBA、注册会计师、注册医师、注册律师等就是一种资质,获得一定的资质是具有一定职业标准能力的外在证明

B每一种职业都有相应的职业资质模型,都有一个相对公平公正的准入标准,形成对从事该职业的独特要求

C 一旦我们拥有职业资质,我们就达到了职业化的标准,所以拥有职业资质是职业化成功的标志

D作为一个职业人,必须具有良好的职业资质,这是进入某一职业领域的通行证 正确

33.1966年,在日内瓦第十一届国际劳工统计专家会议上,通过了《国际标准职业分类》的修订版。国际劳工局将职业分成了几大类( ) 人 A 7 B 10 C 8 D 9

34.以下哪项表述不属于好的事业职业? BX

- A能够在短期内赚较多钱,长期情况未知
- B 有利于施展个人的聪明才智,给人以成就感
- c 具有广阔的发展空间, 为今后的发展提供支持

D 有益于国家和社会,能够做出最大的贡献

35.小谢毕业于某重点大学计算机专业,他具有较高的学历,又有较好的专业技能,是典型的知识型员工。对于他的职业发展路径,以下最合理的是(\_\_\_\_) A 从事基层技术工作,如果要求得不到公司满足,立刻跳槽 B 潜心研究技术工作,对外界变动漠然处之

C 从事技术研究工作,同时注意提升自我的管理能力,抓住适当时机,成为管理人员

D以上说法都不正确

36.生活中不难发现,有的人身上仿佛有一种魔力,周围人都乐于聚在他的身边。心理学研究表明,这类人大都具有良性的自我表象和自我认识:"我是一个受人欢迎的人,我喜欢与人交往"。这是人际交往中的一项基本技能,即(分), A.藐视一切的自信 B 自我接受 C 积极的心理暗示 D 自我价值感

37.以下表述中,哪一项是当代大学生应该努力做到的? (A 疏于思考 B 自以为是 C 积极行动 D 个人主义

38.以下有关简历的说法,正确的是( C 简历不需要数据说明 D 不同职位 A 简历内容越多越好 B 简历内容要有针对性 C 简历不需要数据说明 D 不同职位可以使用同一份简历

39.要写出一份精彩的简历,需要把握的要点包括哪些: (1) 全面 (2) 重点突出 (3) 简练 (4) 真实 (4) C (1) (2) (4) D (1) (2) (3) (4)

40.第一印象中,55%来自(C) A 行为举止 B 谈话的内容 C 衣着、发型等外表 D 说话的声音、语调

二、简答题(每题 5 分,共 20 分) 请根据问题写下你的个人看法。

1.简历中都应该有什么?

2.职业规划都包括哪些内容?

3.工作中会用到哪些你在学校中学习到的知识?

4.如果和同事产生矛盾你会怎么做?

Rangsi

1.	简历中心结合人。1年15年,1年15年。	
2.	职业的发展前景,职业的上升路线, 职业的扩大的正配度。 3	
3.	专业的生产,人际交往的自然,危机处理自己力,方面上海的大大大大大大大大大大大大大大大大大大大大大大大大大大大大大大大大大大大大	2
4.	首先会解释清楚事情的经过,再理清谁是又好的。	2
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	Para Rangsit University Para Rangsit University Para Rangsity Para Rangs	

科目: 就业指导姓名: 木木 凡

总分: 100 学号: 2019062司0

一、选择题(每题2分,共80分)

1.毕业生毕业	时如没有办理	就业报到证或	办理了就业报到证后需要改派的,	必顺
在几年内来学	校办理。(	5)	成办理了就业报到证后需要改派的。 D、4 年	
A、1年	B、2年	C、3年	D、4年	

2.按照"村官计划"的政策要求,国家要争取用3年到5年时间基本实现全国每个村、每个社区至少有A名高校毕业生的目标? ( ← ) A、1名 B、2名 C、3名 D、4名

3.劳动合同具有( A )
A、法律约束力 B、道德约束力 C、行为约束力 D、刑法约束

4.毕业生到非公有制企业就业,( ) **是**其户口和档案的存放单位。 A、本单位人事部门 B、自行保管 C、各级人事服务机构 D、学校

5.以下哪一项不是社会保险中最基本的"三险"( )。 A、养老保险 B、医疗保险 C、工伤保险 D、失业保险

6.毕业生在离校后,其户口、档案不可以( A)。 A、放在人才市场 B、迁往正式单位 C、拿在自己手里 D、回生源所在地

7.对高校毕业生从事个体经营的,除国家限制的行业外,自工商行政管理部门登记注册之日起几年内免交登记类、管理类和证照**类的**各项行政事业性收费?

A、1年 B、2年 C、3年

8.根据我国劳动法的规定,试用期最长不应超过( )。 / A、1个月 B、3个月 C、6个月 D、1年

9.公务员的行测能力考试,申论考试两方面,下列不属于行测能力部分的是(A语言表达 B组织能力 C数字计算能力 D逻辑推理

10.从服装穿着的场合来讲,分为公务、社交、休闲这三个大类,下面那种服装不适合公务场合穿着。(人) A工作服 B 牛仔装 C 军装 D 套装

11.交往礼仪之中的一条十分重要的原则,叫作(人)。它的含义,是要求人们在与其他人进行交往的过程中,要努力地以自身的实际行动,去接受对方,重视

对方, 赞同对方。 A三A原则 B和谐原则 CTOP原则 D尊重原则

12.今天,我们面对一个工作越来越复杂,分工越来越细的社会,对于一个集体、 一个单位或者是一个国家,(分)精神都是非常关键的。 A敬业 B团队C创新 D合作

13. ( ) 指的是主要在日常生活活动中获得,能不断得到改善的技能。 A 适应能力 B 表达能力 C 沟通能力 D 可迁移能力

14.在医疗活动中,有些时候往往是 ( A) 决定结果,而不是技术决定结果。 A 职业道德 B 职业态度 C 临床经验 D 医疗条件

15.下列选项中,属于职业的是( A.小偷 B. 建筑工人 C. 志愿者 D.义务交通劝导员

16.我国高等学校毛入学率达到 23%,标志着我国高等教育实现了从精英教育向 A大众化教育 B 专业化教育 C 职业教育 D 全民化教育

17.我国现行的大学毕业生就业形式主要是(分) A 统招统分 B 双向选择 C 供需见面 D 自主择业

18.下列那一个不属于大学生进行自我定位时社会分析方面( A 社会分析 B 家庭环境分析 C 组织分析 D 人际关系分析

19.下列那一个不是大学生职业生涯规划的核心容( 8) A知己 B环境 C知彼 D决策

20.按照萨珀职业生涯发展理论,人的职业发展过程分为(人)外段 A三个 B四个 C五个 D六个

磨练,健康成长的重大举措。 A 进村进社 B "三支一扶" C 乡镇医生 D 西部计划志愿者服务项目

22.正式场合穿着的正装,其色彩一般要遵循( )。 ATOP 原则 B 和谐原则 C 三 A 原则 D 三色原则

23.下列做职业测试的错误方式是( ) 23. 下列做职业测试的错误万式是( )) \A 一次完成 B 持平静的心态、放松的心情作答 C 以自己的第一感觉作答 D应该选择正确答案

24.劳动合同具有(

A 法律约束力 B 道德约束力 C 行为约束力 D 刑法约束力

25.下列哪项不是毕业生可选的落户方式( A 办理非转农户口 B 落户亲戚朋友 C 落户工作单位集体户口 D 挂靠人才中心

26.未签应聘协议的毕业生,档案、户口将流向什么地方? ( A 档案到用人单位户口回生源 B 户口到用人单位,档案回生源地 C 档案、户口均到用人单位 D 档案、户口均回生源地

28.毕业生户口的迁移通常在什么时候进行 ( 力) A 五月下旬 B 六月中 C 六月底 D 7-8 月份

29.就业协议书上的培养方式一般写( A 委培 B 定向 C 非定向 D 无

30.户口的具体管理权在(分) A 人事局 B 辖区派出所 C 教育局 D 乡镇街道

31.一份创业规划应该使自身因素和(A)达到最大程度的契合A社会条件 B人脉资源 C资金资源 D家庭因素

32.职业资质就是从事本职业的基本素质和能力要求。关于资质,下列说法错误的是(人) A 资质是能力被社会认同的证明,如 MBA、注册会计师、注册医师、注册律师等就是一种资质,获得一定的资质是具有一定职业标准能力的外在证明 B 每一种职业都有相应的职业资质模型,都有一个相对公平公正的准入标准,形成对从事该职业的独特要求 C 一旦我们拥有职业资质,我们就达到了职业化的标准,所以拥有职业资质是职业化成功的标志 D 作为一个职业人,必须具有良好的职业资质,这是进入某一职业领域的通行证证确

33.1966 年,在日内瓦第十一届国际劳工统计专家会议上,通过了《国际标准职业分类》的修订版。国际劳工局将职业分成了几大类( ) A 7 B 10 C 8 D 9

34.以下哪项表述不属于好的事业职业? A 能够在短期内赚较多钱,长期情况未知 B 有利于施展个人的聪明才智,给人以成就感 C 具有广阔的发展空间,为今后的发展提供支持

#### D 有益于国家和社会,能够做出最大的贡献

35.小谢毕业于某重点大学计算机专业,他具有较高的学历,又有较好的专业技能,是典型的知识型员工。对于他的职业发展路径,以下最合理的是(人) A 从事基层技术工作,如果要求得不到公司满足,立刻跳槽 B 潜心研究技术工作,对外界变动漠然处之 C 从事技术研究工作,同时注意提升自我的管理能力,抓住适当时机,成为管理人员 D 以上说法都不正确

36.生活中不难发现,有的人身上仿佛有一种魔力,周围人都乐于聚在他的身边。心理学研究表明,这类人大都具有良性的自我表象和自我认识:"我是一个受人欢迎的人,我喜欢与人交往"。这是人际交往中的一项基本技能,即(\_\_\_\_)
A.藐视一切的自信 B 自我接受 C 积极的心理暗示 D 自我价值感

37.以下表述中,哪一项是当代大学生应该努力做到的? (A 疏于思考 B 自以为是 C 积极行动 D 个人主义

39.要写出一份精彩的简历,需要把握的要点包括哪些: (1) 全面 (2) 重点突出 (3) 简练 (4) 真实 D (1) (2) (4) D (1) (2) (3) (4)

40.第一印象中,55%来自( A 行为举止 B 谈话的内容 C 衣着、发型等外表 D 说话的声音、语调

二、简答题(每题 5 分, 共 20 分) 请根据问题写下你的个人看法。

1.简历中都应该有什么?

2.职业规划都包括哪些内容?

3.工作中会用到哪些你在学校中学习到的知识?

4.如果和同事产生矛盾你会怎么做?

Rangsi

1. 简历中心结合个人介绍,学历智慧,工作经历。
1. 简历校况有个人介绍,学历智慧,工作经历,
2. 耳乳的发展路线,发展前景,有身的
匹酉已度。是否能的多带来成长,工资水平。 人
3. 专业的共记, 人际发生自己力, 书志压能力, 约
通能力。
4110/12
4.解释清楚事情的经产,并至动缓和双方 3
的情绪。
Assessment of the second
320
ME/200 CONT
Par Rangsit University

## APPENDIX K

## PARTICIPAN'S LEGAL GUARDIAN INFORMATION SHEET





### Participan's Legal Guardian Information Sheet

#### Dear Participant:

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

Research School: Heihe University, Heilongjiang province, China.

Name: Mingxue Li Student ID: 6304993

Studying University: Survadhep Teachers College of Rangsit University, Thailand

Research Title: THE APPLICATION OF MOOC FOR CAREERS GUIDANCE OF YEAR 3 UNIVERSITY STUDENTS IN HEILONGJIANG PROVINCE, CHINA

#### 1. What is the purpose of the study?

To compare the learning achievement in a Careers Guidance course before and after the use of MOOC by Year 3 university students in Heilongjiang Province, China.

To examine Year 3 university students' attitude towards the use of MOOC in a Careers Guidance course in Heilongjiang Province, China.

#### 2. Expected results

Year 3 university students' learning achievement in Careers Guidance course in Heilongjiang Province, China will be higher after the use of MOOC.

#### 3. Outcome

The use of MOOC has improved the careers guidance achievement of third-year college students.

4. Number of participants in the study 30 individuals

#### 5. Research procedures

The researcher will collect data in 5 steps. First, give a pretest to the participants. Second, use a MOOC to teach the participants a careers guidance class. Third, administer a post-test at the end of all classes. Fourth, a questionnaire will be given to the participants to investigate their satisfaction with using the MOOC to learn careers guidance. Fifth, interviews were conducted to investigate students' perceptions of the course outcomes.

#### 6. Duration

The research period will be 4 weeks, 8 sessions.

Week 1: class 1& 2 (to be announced)

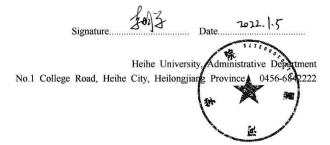
Week 2: class 3& 4 (to be announced)

Week 3: class 5& 6 (to be announced)

Week 4: class 7& 8 (to be announced)

There is no possible risk in this research.

The school has asked students who have volunteered to participate to inform their parents and has obtained consent to volunteer for the research, and the data from the study are true and valid The school aslo allow 30 students to assist him with his thesis research, either voluntarily or by voluntary experiments, by agreeing to (Mingxue Li), who is enrolled at Rangsit University in Thailand to research his thesis.





# **Experts Who Validated the Research Instruments**

S1.	Name	Position Title	Institutes
1	Gary Ambito Torremucha	University Lecturer	Rangsit English Language Institute, Rangsit University, THAILAND.
2	Zhengyan Li	College Teacher	Faculty of Foreign Languages, Heilongjiang International University , CHINA.
3	Ru Gao	English Teacher	The Second Affiliated High School of Xi'an Jiaotong University, CHINA.

## **BIOGRAPHY**

Name Mingxue Li

Date of birth April 18, 1997

Place of birth Heilongjiang, China

Education background Heihe University, China

Bachelor of Computer, 2020

Rangsit University, Thailand

Masters of Education in

Curriculum and Instruction, 2021

Address Qitaihe, Heilongjiang Province, China

Email Address limingxue5867@qq.com

