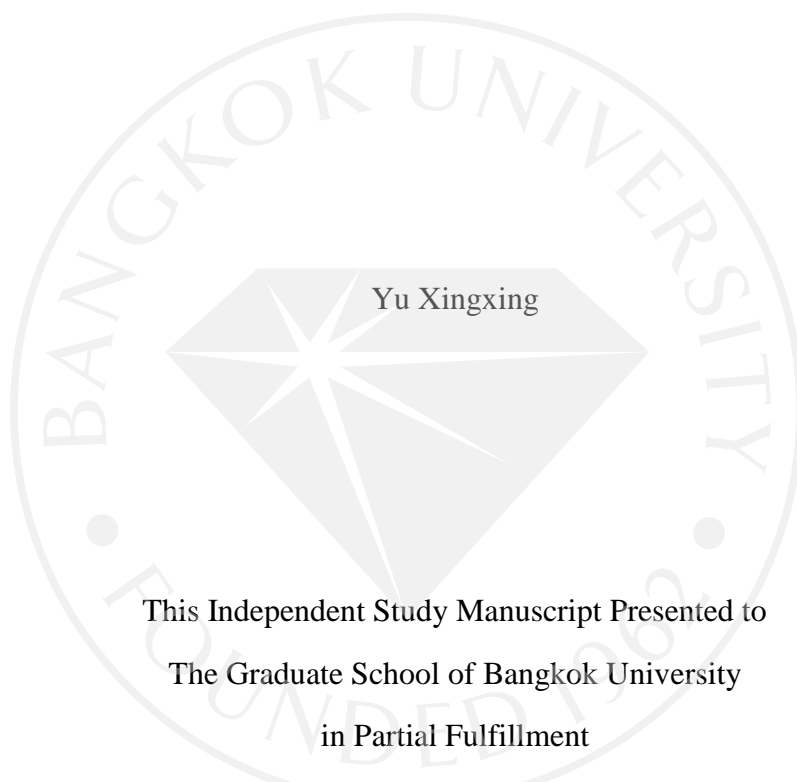


**ASSESSMENT OF ATFB (ATTRACTIVE TEACHER FEATURES)  
INSTRUCTIONAL DESIGN ON MOOC LEARNER MOTIVATION AND  
COMPLETION RATES**



ASSESSMENT OF ATFB (ATTRACTIVE TEACHER FEATURES)  
INSTRUCTIONAL DESIGN ON MOOC LEARNER MOTIVATION AND  
COMPLETION RATES



This Independent Study Manuscript Presented to  
The Graduate School of Bangkok University  
in Partial Fulfillment  
of the Requirements for the Degree  
Master of Management in Business Innovation

Academic Year 2021

Copyright of Bangkok University

This manuscript has been approved by  
The Graduate School  
Bangkok University

Title: Assessment of ATFB (Attractive Teacher Features) Instructional Design on  
MOOC Learner Motivation and Completion Rates

Author: Yu Xingxing

Independent Study Committee:

Advisor

Dr. Xavier Parisot

Co-advisor

Dr. Varalee Chinerawat

Dr. Dingyao Zheng

Field Specialist:

Dr. Vincent Ribiere

Xingxing, Yu. Master of Management (Business Innovation), June 2022,  
Graduate School, Bangkok University.

Assessment of ATFB (Attractive Teacher Features) Instructional Design on MOOC  
Learner Motivation and Completion Rates (186 pp.)

Advisor: Xavier Parisot, Ph.D.

Co-advisor: Varalee Chinerawat, Ph.D.

Co-advisor: Dingyao Zheng, Ph.D.

## **ABSTRACT**

The purpose of this study is to examine the MOOC learner motivation and completion rate by looking at it from the perspective of adult higher education ATFB (Attractive Faculty Features) instructional design. This study had three main aims. First, the effect of ATFB (Attractive Teacher Features) instructional design on MOOC learner motivation. Secondly, the conceptual framework of ARCS motivation theory: Attention, Relevance, Confidence, and Satisfaction were examined to assess the behavior of MOOC learners. Finally, we understand the assessment of the course completion rate of adult higher education MOOC learners at Baise University based on the "Qing Shu Xue Tang" online learning platform. At the same time, this study will serve as a basis for future research into the use of instructional design methods to motivate students in an open learning environment.

Findings suggest that attractive teacher characteristics joined with teacher charisma, teacher personality, teacher behavior, and teacher competence in instructional design have an impact on motivating MOOC learners. Attractive teacher characteristics added to teacher charisma, teacher personality, teacher behavior, teacher competence in instructional design have an impact on MOOC learner

completion rates. Motivating students plays a mediating role in teacher traits on completion rates.

*Keywords: MOOC, Teacher Charisma, Teacher Character, Teacher Behavior, Teacher Competence*



## ACKNOWLEDGEMENT

The authors of this study would like to express their sincere thanks to all those who contributed and helped in the completion of the thesis. It has been an exhausting but exciting learning experience for the researcher. The purpose of this paper is to understand the teaching design of ATFB (Attractive Faculty Features) for adult higher education at Baise University, which in part helps teachers to better understand MOOC learner behavior and refine the teaching design to meet the needs of MOOC learners from the perspective of MOOC learners. It will also benefit those MOOC learners who want to opt for the ATFB (Attractive Faculty Features) instructional design for adult higher education at Baise University. This is, of course, satisfactory for all parties. Researchers, both in China and in other countries, have argued that adult higher education ATFB (Attractive Faculty Features) instructional design must focus on positive characteristics of teacher charisma, teacher personality, teacher behavior, and teacher competence in order for more MOOC learners to choose adult higher education at Baise University.

This study was strongly supported by Baise University, their administrators and their most important MOOC learners. Without their help and support, the study would not have been successful in collecting the key data. The process of collecting data was most enriching as the researchers had the opportunity to engage directly with people, thus enhancing the learning experience.

Firstly, I would also like to express my deep gratitude to Dr. Varalee and Dr. Zheng.

Secondly, I would also like to thank Dr. Xavier Parisot for teaching us how to search and read the literature, and for giving me great inspiration to write this IS. This research paper was inspired and encouraged by the tireless efforts of many people. Finally, I would like to thank my 'teacher', Yu Liang, for her translation and editing of this IS.

Finally, I would like to thank my parents for their continued support and confidence that I will complete my course work and successfully complete my final dissertation for my MBI program at Bangkok University.

Yu Xingxing



## TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
ACKNOWLEDGEMENT.....	v
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
CHAPTER 1: INTRODUCTION .....	1
1.1 The Context of the Domestic Adult Higher Education MOOC Industry Drive.....	3
1.2 Intentions and Reasons for the Study.....	5
1.3 Purpose of the Study of MOOC Courses in Adult Higher Education.....	7
1.4 Hypothesis.....	7
1.5 Benefits of the Study.....	8
1.6 Limitations of the Study.....	8
1.7 Conclusion.....	9
CHAPTER 2: REVIEW OF THE LITERATURE.....	10
2.1 Classification of MOOC Research Themes.....	10
2.2 ATFB (Attractive Teacher Features) Instructional Design.....	11
2.3 Conceptual Framework.....	35
2.4 Conclusion.....	36
CHAPTER 3: RESEARCH METHODS.....	41
3.1 Exploratory Mixing Method.....	41
3.2 Research Objectives and Evaluation.....	42
3.3 Study Design.....	43
3.4 Data Collection.....	44
3.5 Qualitative Analysis.....	71
3.6 Quantitative Analysis.....	74
3.7 Validity and Reliability.....	75



## TABLE OF CONTENTS (Continued)

	Page
CHAPTER 4: DATA ANALYSIS.....	76
4.1 Frequency of Basic Information.....	76
4.2 Reliability Analysis.....	77
4.3 Calibration Analysis.....	78
4.4 Correlation Analysis.....	85
4.5 Regression Analysis.....	89
4.6 Intermediary Analysis.....	93
CHAPTER 5: CONCLUSION .....	97
5.1 Interpretation of the Conclusions and Results.....	97
5.2 Research Implications.....	101
5.3 Limitations of the Study.....	101
5.4 Suggestions for the Next Step of the Study.....	101
BIBLIOGRAPHY.....	103
APPENDICES.....	117
Appendix A Open Interview.....	118
Appendix B Finding and Analysis.....	123
Appendix C ATFB (Attractive Teacher Features) instructional Design assessment of MOOC learners' motivation and completion rates.....	158
Appendix D IOC Item Content Validity.....	163
BIODATA.....	186

## LIST OF TABLES

	Page
Table 2.1: Classification and Benefits of MOOC Videos.....	14
Table 2.2: MOOC Video Attractiveness Related Elements Analysis Framework.....	15
Table 2.3: Analysis of Available Materials According to ARCS.....	37
Table 3.1: Incentive Targets and Assessment according to ARCS.....	43
Table 3.2: Study steps for the Exploratory Mixed Method.....	44
Table 3.3: Findings and variables from Relevant Literature.....	45
Table 4.1: Results of Frequency Analysis of Basic Information.....	76
Table 4.2: Reliability Analysis.....	78
Table 4.3: Questionnaire scales KMO and Bartlett's Test.....	79
Table 4.4: Total Variance Explained.....	80
Table 4.5: Rotated Component Matrix.....	84
Table 4.6: Pearson Correlation.....	87
Table 4.7: The Impact of Teacher Characteristics on Motivating Students...	89
Table 4.8: The Impact of Teacher Characteristics on Completion Rates.....	91
Table 4.9: The Impact of Motivating Students on Completion Rates.....	92
Table 4.10: Hierarchical Analysis of Mediating Effects.....	94
Table 4.11: BOOTSTRAP Mediating Effects Test.....	95

## LIST OF FIGURES

	Page
Figure 3.1: Describes the Research Process for the Exploratory Mixed Methods.....	42
Figure 3.2: Conceptual Framework of the Study.....	74
Figure 4.1: Gravel Figure.....	83



## **CHAPTER 1**

### **INTRODUCTION**

This chapter presents the research proposal for this study, including the background to the study of the domestic adult higher education MOOC industry driving the study, the intent and reasons for the study, the purpose of the study of adult higher education MOOC courses, the hypotheses, the results arising from the benefits of the study, the limitations and scope of the study. The chapter is structured as follows:

- 1.1 The Context of the Domestic Adult Higher Education MOOC Industry Drive
- 1.2 Intentions and Reasons for the Study
- 1.3 Purpose of the study of MOOC courses in adult higher education
- 1.4 Hypothesis
- 1.5 Benefits of the study
- 1.6 Limitations of the study
- 1.7 Conclusion

Massive open online courses (MOOC) first emerged in 2008, and their origins can be considered to be when the Open Curriculum Project was launched and led to the Open Educational Resources (OER) movement (Liyanagunawardena, Adams, & Williams, 2013). MOOCs are a tool for tens of millions of people who want to advance and improve their lives to access higher education (Patru, & Balaji, 2016). Participants in MOOC do not need to pay tuition or meet conditions to register, even if their creators demonstrate that they can understand the knowledge and skills of their content. Their learning materials are provided through short videos, slideshows or other e-books (Hoy, 2014) and hosted on the famous Edx online platform. In Thailand, in 2014 Thailand Cyber University (TCU) from the Office of

the Council of Higher Education, Ministry of Education of the People's Republic of China (2020) developed a project called Thailand Massive Open Online Course (Thailand MOOC). Currently offering over 400 courses from 90 universities and organizations, they aim to provide a space for lifelong learning for Thai learners and lecturers. Learners can work on areas and subjects that interest them, while lecturers can create interesting online courses and teaching materials. Therefore, MOOCs in Thailand can benefit Thai education by developing lifelong learning opportunities in different communities. In addition, MOOCs in Thailand provide quality education and valuable research resources to promote and encourage entrepreneurship and innovation (Chaimin, 2019; Pusumpan, 2019; Thailand Cyber University, 2022). After learners have completed the course, a free unofficial e-completion certificate (Karnouskos & Holmlund, 2014). Although the learning opportunities they offer are easily accessible, many participants seemed dissatisfied with their participation. This is because of the way they are taught, the design of the teaching, the lack of face-to-face contact with their tutors and the vague instructions they receive (Yuan & Powell, 2013; Hew & Zhang, 2014). Ultimately, only a very small proportion of people completed the task. The conclusions yielded a completion rate for learners between 5%-15% (Jordan, 2013) or below 10% as concluded by Alraimie, Zo, & Ciganek (2015) based on completion rates from a number of other surveys.

Once learners are interested and attracted to teaching and learning, they need to be motivated to help themselves overcome difficulties and obstacles, and they need to build confidence in their "ability to do the task", otherwise they may give up on the task (Xie, 2007). Motivation is closely related to learners' academic achievement and is key to learners' continuous learning. Highly motivated learners tend to do more exploratory learning (Martens, Gulikers, & Bastiaens, 2004). Learner motivation plays a key role in the engagement and completion of an online course. Research has shown that learner motivation can be achieved with good teaching materials, reflecting the results of good instructional design and playing an important role in

increasing completion rates in MOOC courses (Giasiranis & Sofos, 2020). Cross's research found that course design, especially course guidance by the instructor, is an important influence on MOOC learners' persistent learning factors (Cross, 2013).

### **1.1 The Context of the Domestic Adult Higher Education MOOC Industry Drive**

Adult higher education is an important part of China's higher education system, belongs to the national education series, is included in the national enrollment plan, the state recognizes the qualifications, the candidate after taking the national enrollment unified examination, each province and autonomous region unified organization admission (Wu, 2013). Adult higher education is mainly for people after general education due to the fact that there is no age limit for students. The main purpose of the adult higher education form of teaching is to meet the needs of students at a higher age in society to update their knowledge; improve their skills and professional level. Traditional adult higher education does not have the means to complete learning tasks at a specified place and time, exactly as arranged by the school (teaching institution). In face-to-face adult higher education, learners are not able to pool teaching resources and develop and update them. Teaching institutions do not have sufficient resources to organize student teaching programs scientifically or to reform the teaching system. In short, only by solving the "contradiction between work and study" and the "irreconcilable contradiction between study time and territory" of adult higher education students can the teaching resources of adult higher education be effectively concentrated (Hao, 2018).

With the rise of MOOC, Li Keqiang proposed in his government work report that "an "Internet+" action plan should be formulated to promote the accelerated development of mobile Internet and better facilities such as cloud computing and big data. Accelerate the technology and industrialisation of artificial intelligence, promote the development of e-commerce and encourage international cooperation in e-commerce to build new advantages and new functions for economic and social

development. A number of universities such as Peking University, Tsinghua University and Shanghai Jiao Tong University have launched Chinese MOOC platforms to share learning resources by building distance learning courses using the Internet. The number of registered users on just one MOOC platform, Xue Tang Online, has exceeded 4 million, and as Professor Li Manli, head of research and development for MU at Tsinghua University, said, "In the history of education, there has not been an event that has attracted such widespread global attention and such rapid action in such a short period of time" (Chen & Tian, 2014).

In fact, Shah (2019) reports that in 2018 more than 900 different universities offered over 1,100 MOOCs with over 100 million enrolments (Shah, 2019).

Since December 2019, a serious infectious outbreak caused by a novel coronavirus (2019-NCOV) has swept the country, and China and the world are fighting hard against the novel coronavirus infection pneumonia outbreak. China's Ministry of Education of the People's Republic of China (2020) has issued a guideline on the organization and management of online teaching in general higher education institutions during the epidemic prevention and control period, requiring universities to make full use of online open courses, virtual simulation experiments and other high-quality online course teaching resources and actively carry out online teaching activities, so as to achieve "teaching without stopping classes and learning without stopping classes". The government has also requested universities to make full use of online open courses, virtual simulation experiments and other high-quality online teaching resources to actively carry out online teaching activities, so as to achieve "teaching without stopping, learning without stopping" and ensuring a paradigm shift and quality of teaching and learning during epidemic preparedness and control. As of the first half of 2019, the size of China's online education users has exceeded 480 million and maintained high growth ("Online education semi-annual report", 2019). Qing Shu Xue Tang is an online education app that provides online learning resources and features for students of all ages. It offers learning resources in the areas of

vocational, higher education and adult education and most of the learning resources are free.

As the epidemic has affected all settings of the global education system (Ucar & Kumtepe, 2019), many universities have shifted from face-to-face to online teaching, demonstrating an innovative teaching model for online education (Dhawan, 2020). Online education offers flexibility in terms of time and place of study (Dhawan, 2020; Singh & Thurman, 2019; Zhu, Berri, & Zhang, 2021). Students can customise their learning process to suit their needs.

## **1.2 Intentions and Reasons for the Study**

For two consecutive years (2013 and 2014), GoShell.com launched a survey of MOOC learners. 2013's survey showed that the main reasons that prevented completion of the course were the following: "limited time to devote" (59%), "lack of perseverance" (55%), "language barriers" (55%), "course content not as expected" (21%), "difficulty in finding a study partner to communicate with" (20%), "Course product not working well or poor internet access" (20%), "Course too difficult" (18%), "Didn't think hard enough when choosing a course just tried it out" (17%), "The course content is not attractive" (12%), "The teacher's teaching style is not attractive" (12%), "The certificate does not bring enough value" (9%), "not used to the exam style" (6%), "no certificate" (5%), "other reasons" (3%), and "Don't like the online learning style" (2%). The 2014 survey shows that the top three reasons for MOOC learning continue to be 'too busy to take time' (29% of those who took a course but did not study it), poor self-control or procrastination (26.1%) and language difficulties (17.5%). Compared to the findings of the 2013 survey, other reasons affecting MOOC learning remain. It is evident that learner initiative affects MOOC completion rates. Domestic scholars suggest that the key to solving the low completion rate of catechism lies in improving the quality of catechism design, and its important factors for successful design include instructional design (Jiang, Zhao, & Li, 2016). Some



scholars also believe that the quality of teaching resources should be improved, and that the quality of teaching videos, as the delivery medium of MOOC content, will directly affect learners' engagement with the course and the learning effect. Different types of learners approach MOOC learning differently and the learning outcomes can be very different. Phil Hill, an American educational technology consultant and analyst, classifies MOOC learners into five categories: No-Shows, Observers, Drop-Ins, Passive Participants and Active Participants). As MOOC courses are mainly taught online through videos, the main part of the course is the video content. The Baise University Adult Higher Education MOOC requires students to pay for identification when attending the course, and certificates or credits obtained from the completed instructional videos are recognised by the University. Teachers integrate learning resources for learners at different grade levels, such as video, audio, visual aids and text, as required by the lesson plan, to engage learners in education (Dhawan, 2020). Despite the challenges, interaction, communication, classroom participation, hands-on practice, learner attention, etc.

MOOC learners should be aware that they have to manage their own learning process and guide their own engagement with learning until it is achieved. In addition, MOOC teachers and systems should focus on the quality of the course, the interest of the content, and especially the quality of the learning support system that enables teachers and learners to interact with each other (Albelbisi, 2019; Alraimi et al., 2015; Hew & Cheung, 2014).

To summarise the above problem statements, most people are unable to complete the course because of limited time commitment, lack of perseverance, course content not matching expectations, course difficulty being too high, course content not appealing, and teacher teaching style not appealing. Conversely, the Baise University Adult Higher Education MOOC requires students to pay for identification when taking the course and the factor that learners are passive participants (Passive Participants) also affects learner motivation. These are the areas of research and

interest in this paper. At the same time, the influence and behavior of MOOC learners in the learning process will also become a focus of attention. Therefore, this paper combines MOOC learner motivation theory with practical situations to analyse the MOOC course for adult higher education at Baise University.

### **1.3 Purpose of the Study of MOOC Courses in Adult Higher Education**

The purpose of this study was to assess the extent to which the adult higher education ATFB (Attractive Teacher Features) instructional design harbored items created, motivation led to those participating in the survey, and the extent to which their motivational instructional design contributed to increased completion rates.

Therefore, the following research questions were posed:

1.3.1 Does ATFB (Attractive Teacher Features) instructional design affect learner motivation on a MOOC platform?

1.3.2 Does ATFB (Attractive Teacher Features) instructional design affect course completion rates on MOOC platforms?

1.3.3 Excellent research questions are useful in guiding researchers in conducting research. This study will use these sub-questions to design a study to determine how they affect MOOC learner behavior.

### **1.4 Hypothesis**

This study can explain whether increased motivation and completion rates of MOOC learners affect the design of teaching and learning of ATFB (Attractive Teacher Features) in adult higher education at Baise University.

For the purpose of this study, the survey respondents were adult higher education MOOC learners from Baise University whose responses were authentic and the data collected and analysed were appropriate and valid for this study. The statistical methods and techniques of data collection will be valid for this study.

### **1.5 Benefits of the Study**

One of the benefits of this study is: to understand the factors that go into the design and assessment of ATFB (Attractive Teacher Features) instruction for adult higher education at Baise University. This will, to some extent, help teachers to better understand MOOC learners' behavior and refine their instructional design to meet the needs of MOOC learners from their perspective.

The findings of the study will also benefit MOOC learners who want to opt for the ATFB (Attractive Teacher Features) instructional design for adult higher education at Baise University. They can take away some useful advice from this report.

A mixed research approach combining qualitative and quantitative research was used to collect data, which allowed for a better quantitative analysis of MOOC learner motivation and completion rates, and such a report would be more convincing for future research.

Researchers can enhance their understanding based on ARCS motivation theory, and this study provides a more in-depth understanding of MOOC learner motivation and completion rates through a study of the ATFB (Attractive Teacher Features) instructional design for adult higher education at Baise University.

### **1.6 Limitations of the Study**

This study was limited to examining the motivation and completion rates of MOOC learners completing the ATFB (Attractive Teacher Features) instructional design for adult higher education at Baise University between June 2021 and June 2022. The study was limited to MOOC learners who selected the ATFB (Attractive Teacher Features) instructional design for adult higher education at Baise University. Those who did not select the ATFB (Attractive Teacher Features) instructional design for adult higher education at Baise University will limit the researcher's understanding and knowledge of MOOC learner motivation and completion rates.

## 1.7 Conclusion

This chapter describes the context of MOOC instructional design in China and abroad. Based on this background, the researchers found that the teaching methods, the teacher's posture and audible language, and the learners' passive participation in the MOOC for adult higher education at Baise University led to a certain degree of conflict among learners. Therefore, the purpose of this study was to find out the effect of ATFB (Attractive Teacher Features) instructional design on MOOC learner motivation and completion rates in adult higher education at Baise University. For future researchers, the researcher sets appropriate research objectives, questions, hypotheses, benefits, scope and limitations. The other part of this study consists of five chapters. Chapter 2 is a literature review that discusses the literature review on ATFB (Attractive Teacher Features) instructional design and the various factors that influence MOOC learner motivation and completion rates. This literature provides information on the motivations that may influence MOOC learners in important ways. Chapter 3 describes the relevant research methods, including the conceptual framework, hypotheses, methods of data collection and interpretation. Chapter four is a data presentation, which analyses the research data collected using the research methodology. Chapter 5 is the final chapter and includes a discussion of the research information and recommendations.

## **CHAPTER 2**

### **REVIEW OF THE LITERATURE**

This chapter provides a brief overview of research and theory related to the Adult Higher Education ATFB (Attractive Teacher Features) Instructional Design MOOC. First, it will introduce the classification of MOOC research topics, followed by the importance of ATFB (Attractive Teacher Features) instructional design. After that, the motivation and completion rates of MOOC learners by ATFB (Attractive Teacher Features) instructional design will be described. The motivational factors of MOOC learners are based on the ARCS theory of motivation, and the research conducted by domestic and international experts and scholars, including Attention, Relevance, Confidence and Satisfaction. Finally, the existing frameworks and research themes of Li and Moore (2018) and Ucar and Kumtepe (2019) are combined to construct a theoretical conceptual framework.

#### **2.1 Classification of MOOC Research Themes**

#### **2.2 ATFB (Attractive Teacher Features) Instructional Design**

#### **2.3 Conceptual Framework**

#### **2.4 Conclusion**

### **2.1 Classification of MOOC Research Themes**

According to Veletsianos and Shepherdson (2015), MOOC research themes can be divided into four main categories as follows:

1) Student-focused research; Kizilcec, Piech, and Schneider (2013) classify learners into four categories: completers, observers, early leavers and experiencers. Kellogg, Booth, and Oliver (2014) classified learners into interactors, surfers, facilitators and invisibles.

2) Design-focused research; Yang, Piergallini, Howley, and Rose (2014) worked on incorporating social interaction tools into online courses. Albelbisi (2020)

developed and validated a MOOC success scale and found that system quality, attitude and course quality predicted satisfaction with the MOOC. Bakki, Oubahssi, George, & Cherkaoui (2020) provided a model and tool, the MOOC editing tool (MOOCAT), to assist teachers in designing and implementing teaching and learning scenarios in a connected MOOC environment.

3) Focused on situational and impact studies; Wang and Zhu (2019) analyzed the effectiveness of MOOC-based flipped learning and proposed guidelines for the repeated use of catechism in traditional university education. The results of a quasi-experimental study showed that students performed better in the flipped catechism-based classroom than in the traditional classroom, but there was no change in self-efficacy and self-directed learning ability.

4) A study focusing on faculty; Liu, Zha and He (2019) investigated two important factors in MOOC development, teaching and operation: managers and faculty members.

As a result, Cheng (2021) only few studies have focused on MOOC teachers or the teaching context and impact of MOOCs. Furthermore, studies related to the use of quantitative methods to study MOOC teachers are particularly rare. While some researchers have investigated learners' initial motivation to participate in MOOCs using survey and interview methods (e.g., Shapiro et al., 2017), few studies have examined changes in learners' motivation during MOOCs, and even fewer studies have incorporated systematic instructional design into MOOCs aimed at increasing learner motivation. As Jordan (2014) states, it is worth examining the course design factors that influence student engagement and completion of MOOCs.

## **2.2 ATFB (Attractive Teacher Features) Instructional Design**

The MOOC is a product of the information age, with its natural informational character, and differs significantly from traditional course teaching in many dimensions. In the modern concept of teaching and learning, all of its components

(teacher, student, learning materials, learning environment) play a key role, and changes in any one of them affect the others, as well as the final learning outcomes. That is, they are a system that enhances learning outcomes through instructional design (Dick, Carey, & Carey, 2015).

Merrill and Gilbert (2008) argue that instructional design is the practice of creating and developing learning experiences and environments to make the acquisition of knowledge and skills more effective, efficient and engaging, that teaching is a science and that instructional design is a technology based on this science, and therefore instructional design can also be considered a science-based technology. The primary purpose of instructional design is to arouse learners' curiosity, to stimulate and sustain attention, and to get students to project their attention into the learning activity. Using an online teaching model, students' attention can be captured by changing the way the lesson is presented; the design of the lesson by constantly asking unexpected questions or interesting phenomena can also trigger students' attention and thus enhance their focus on the learning process.

When teachers design instruction, they design appropriate teaching strategies to address students' motivation status and the characteristics of the content. Research shows that 16% to 20% or even 30% of the variance in student learning achievement is caused by motivation (Zhou, 2018).

Motivations are the driving force behind participation in training programmes. They are the reason why people decide and adopt a certain behavior and what determines the intensity of their efforts (Keller, 2010). Motivation can be both intrinsic and extrinsic. Intrinsic motivation comes from the learner himself and is related to his learning needs, interests, curiosity and intrinsic satisfaction. On the other hand, extrinsic motivation comes from the learner's external environment and is related to rewards applause (Davidson & Sternberg, 2003; Dembo & Seli, 2020). In self-directed learning environments such as MOOCs, motivation is more important than in traditional learning environments due to the lack of face-to-face teacher

discipline over learner activities and the same lack of communication between learners (Semenova, 2020).

Teaching video refers to the content of knowledge and skills to be taught to learners in accordance with the requirements of the teaching plan, through the use of technical means by teachers or professional and technical personnel, integrating various information such as graphics, text, sound and video, generating video files or links released for the majority of learners to learn to use teaching resources (Cai et al., 2017).

Experts and scholars at home and abroad have put forward corresponding principles for the design of MOOC teaching videos from different perspectives, including theory, video presentation and practical experience. For example, Columbia University in the USA has summarised three dimensions of curriculum design, cognitive load and instructional video appeal from theoretical and practical research and broken them down into eleven principles of instructional video design. The Technical University of Munich, Germany, summarized eight principles of instructional video design in four dimensions: presentation of instructional videos, lengthy captions and narration text, PPT screen presentation, and navigation and guidance (Wang & Dong, 2018). The Massachusetts Institute of Technology (MIT), USA, classified MOOC videos into four types based on teaching styles (diverse styles): live classroom videos, close-up head shots of teachers teaching at their desks, Khan Academy-style videos of inferred lectures on whiteboards, and slideshow videos as shown in Table 2.1 (Guo et al., 2014).



Table 2.1: Classification and Benefits of MOOC Videos

Video Categories	Advantages
Real-life recorded classroom videos	Very close to the teacher's usual classroom lectures
Video of close-up of teacher's head	Easy to make students feel one-to-one and face-to-face
Khan Academy-style videos, slideshow videos	Clear and easy to read images and text

According to the classification of MOOC videos and the characteristics of the course, the three elements of teaching methods, teacher's posture and audible language, and teaching content presentation media are analyzed in terms of what should be noted in the production of MOOC videos, so as to increase the learner stickiness of MOOC, make learners more interested in the course, actively participate in learning, improve the course completion rate and enhance the teaching effect of the course. Referring to Zhang (2018) study on the variability in video language expression techniques, a framework for analysing the elements of MOOC video appeal as shown in Table 2.2 is summarised.

Table 2.2: MOOC Video Attractiveness Related Elements Analysis Framework

	2001-2015 MOOC video attractiveness			Modern theory in MOOC instructor attractiveness		Variables from literature reviews
Question: Do you agree in some MOOC course, a nurturing teacher make me more focus even boring subjects?						
	Main elements	Specific elements	Element content	Honu, Effah, Adenyo, & Menlah (2019)	MOOC Teachers' personality attractiveness	Nurturing personality: extroversion, conscientiousness and openness traits
Question: What kind of personality make you study last long until completed lesson? Pretty, soft voice, friendly?						
Jowett, Kanakoglou, & Passmore (2012)	Psychology	Trust behavior	Mutual trust and respect	Goncz (2017)		Teacher's personality

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

	2001-2015 MOOC video attractiveness			Modern theory in MOOC instructor attractiveness		Variables from literature reviews
Grant (2014)		Empathy, unconditional positive attention	trust	Corcoran & O'Flaherty (2016)		Personality
Bozer, Sarros, & Santora (2014)		effectiveness	positive	Fabbro et al. (2020)		Personality traits
Question: Do you think ATFB (Attractive Teacher Features) is mutual respect?						
Lemay, Clark, & Greenberg (2010)		like	Keep close	Lukman et al. (2021)		Character ability: can be a friend, can be a role model, know how to learn, discipline, respect students, treat others, patient, relaxed, helpful

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

	2001-2015 MOOC video attractiveness			Modern theory in MOOC instructor attractiveness	Variables from literature reviews	
Question: Do you agree making a good and a fun example make me learn ell?						
Marsh et al., 2010; McCrae, 2011	Teaching methods	The five- factor model of personality (FFM)	Extraversion, Agreeableness, Conscientiousness, Neuroticism, and openness to experience	Zhang (2018)		Good Drawing question teacher
Question: Do you agree that teachers are heroes in MOOC teaching?						
McCrae et al. (2004)			Evaluators and methods	Sholehhudin & Waluyo (2020)		Example

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

	2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness		Variables from literature reviews	
Question: Do you agree in some MOOC course, a good looking instructor make me passionate to log in every class?						
Do you think ATFB (Attractive Teacher Features) get higher student evaluations?						
Cochran-Smith & Fries (2005)		Achievement	Character, Personality	Elmer (2020) Li & Moore (2018)		Physical attractiveness  Attractiveness, student evaluation
Republic of Indonesia ,2005		Teachers' competence	pedagogical competence, personality competence, social competence, and professional competence			

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

	2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness		Variables from literature reviews	
Question: Do you agree that high sense of humor teacher in MOOC make me enjoy my learning?						
Do you think ATFB (Attractive Teacher Features) is calm?						
Do you think ATFB (Attractive Teacher Features) is tolerant?						
Do you think ATFB (Attractive Teacher Features) is friendly?						
Do you think ATFB (Attractive Teacher Features) is well prepared?						
Lupascu, Pânisoară, & Panisoara (2014)		Effective teacher	Information, knowledge, skills, attitude, ability	Lupascu et al. (2014) Hill (2015) Ucar & Kumtepe (2019) Gashtaspour et al. (2019)		Effective teachers (calm, tolerant, humorous, friendly, (well-prepared teachers) Active learning; student motivation Encouraging learner Participation

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

	2001-2015 MOOC video attractiveness			Modern theory in MOOC instructor attractiveness		Variables from literature reviews
Question: Do you agree that friendly teacher and smile in MOOC teaching make me want to study until the end like Movie?						
Bransford, Darling-Hammond, LePage (2005); Varvel (2007)				Gashtaspour et al. 2019; Leo Löwenthal, et al. (2018)		Communication skill
Question: What do you think is the charm of teachers in MOOC teaching?						
Hunt, Wiseman & Touzel (2011) A new species of the genus Phyllostomus (Hymenoptera, Ichneumonidae) from the United States 2009				Zhang (2018)		Charisma

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

			2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness	Variables from literature reviews
Question: Do you think ATFB (Attractive Teacher Features) is having a sense of humor?						
Clotfelter et al. 2007, 2010			Teacher characteristics, certificates	Gashtaspour et al. 2019		Having a sense of humor
Question: Do you think ATFB (Attractive Teacher Features) is creative?						
Simonds & Brock (2014)		Situation	Interactive, lecture	Leo Löwenthal, et al. 2018		Having a creative talent

(Continued)



Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

			2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness		Variables from literature reviews	
Question: Do you think ATFB (Attractive Teacher Features) is interesting?								
Torok, McMorris, & Lin (2004); Booth- Butterfield & Wanzer (2010)	Teacher posture and vocal language	Expression	Smile, agreeable, not serious	Castello et al. (2018)		Personalizing		

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

			2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness		Variables from literature reviews	
Question: Do you think ATFB (Attractive Teacher Features) is interesting?								
Sueyoshi & Hardison (2005)		Look in the eyes	Do not blink frequently, do not wander, look squarely and sparkly.	Jalilova (2020)	Traditional teacher  Sense of humor	pedagogical optimism		

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

			2001-2015 MOOC video attractiveness	Modern theory in MOOC instructor attractiveness	Variables from literature reviews
Question: Do you think ATFB (Attractive Teacher Features) is encouraging/caring for students?					
Novack & Goldin-Meadow ( 2016)		Posture	Sitting posture: sit upright, upper body straight, legs together, feet to the left or right at the same time, fold your hands and place them on your left or right leg right leg	Yusfin (2015)	Establish friendly relations

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

		2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness	Variables from literature reviews
Question: Do you agree that the behavior of teachers in MOOCs is as interesting and creative as Stephen Chow in Chinese movies?					
Cook, Yip, & Goldin-Meadow (2010); Hostetter (2011)		Gesture	The range of rocking is moderate: the upper and lower area of the gesture is not lower than the other person's line of sight, the range of sway between left and The range of rocking is moderate:	Brazhenskaya. (2016, as cited in Astapchuk et al. 2021)	brilliant, creative and interesting person

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

		2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness	Variables from literature reviews
Question: Do you agree that the behavior of teachers in MOOCs is as interesting and creative as Stephen Chow in Chinese movies?					
Cook, Yip, & Goldin-Meadow (2010); Hostetter (2011)		Gesture	the upper and lower area of the gesture is not lower than the other person's line of sight, the range of sway between left and right is not too large, and the number of gestures is not too frequent.	Brazhenskaya. (2016, as cited in Astapchuk et al. 2021)	brilliant, creative and interesting person

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

		2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness		Variables from literature reviews	
Question: Do you agree that the friendly teachers and smiles in MOOC teaching make me want to play a game to the end?							
Guo et al. (2014)		Intonation	Cadence, moderate speed, and no quick pause.	Watson et al. (2016)	MOOC teachers' teach	Gamification	
Li (2012)		Rhythm	The interesting content is light, the critical content is loud, and the praiseworthy content is soothing.				

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

			2001-2015 MOOC video attractiveness		Modern theory in MOOC instructor attractiveness		Variables from literature reviews	
Question: Do you think ATFB (Attractive Teacher Features) will increase interaction with learners?								
Dunlosky, Rawson, Marsh, Nathan, & Willingham (2013)	Teaching content presentati on media	Text	By changing the color and size of the text, it emphasizes the change and relationship of the teaching content.	Zhu et al. (2021)		Interaction with learners	Do you think ATFB (Attractive Teacher Features) will increase interaction with learners?	

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

			2001-2015 MOOC video attractiveness			Modern theory in MOOC instructor attractiveness	Variables from literature reviews
Thorne (2003) Mayer (2014)		Graphics / image	Graphics/ images are closely related to the teaching content, which is conducive to the transfer and construction of knowledge.	Dehghani, Sheikhi Fini, Zeinalipour, & Rezaei (2020)	MOOC teacher's Competencies	knowledge, attitude, skills and personality	Do you think ATFB (Attractive Teacher Features) is high skill level? Do you consider ATFB (Attractive Teacher Features) to be authoritative? Do you consider ATFB to be professional?

(Continued)



Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

			2001-2015 MOOC video attractiveness			Modern theory in MOOC instructor attractiveness	Variables from literature reviews
Allen, Bourhis, Burrell & Mabry (2002) Cai et al. (2017)		Films and Television	The inserted film and television material is in line with the teaching content. Use online video conferencing technology to achieve higher ratings	Pavlysh et al. (2021)		Humour	Do you think ATFB (Attractive Teacher Features) is humorous?

(Continued)

Table 2.2 (Continued): MOOC Video Attractiveness Related Elements Analysis Framework

			2001-2015 MOOC video attractiveness			Modern theory in MOOC instructor attractiveness	Variables from literature reviews
Mayer (2014)		Animation	Cartoon animation: virtual character guided animation: key topics such as navigation arrows, regular flicker emphasis and so on	Al-Hunaiyyan, Al-Sharhan, Al-Sharhan (2016) Giasiranis & Sofos (2020) Shah et al. (2022)		knowledge and culture; technical and technological Aspects; practical, behavioral and social Considerations; supervision and planning; teaching methods; constructor design	Do you think ATFB (Attractive Teacher Features) instructional design motivates learners?

In the philosophy of personality, the terms 'person', 'I' and 'personality' are synonymous". The Soviet educator Sukhomlinsky (1994) said that "the school is like an exquisite musical instrument which plays a human melody in harmony and affects the soul of every student. But in order to play a harmonious melody, the instrument must be in tune, and this instrument is tuned by the personality of the teacher, the educator. The practical experience of excellent teachers such as Chen Guo shows that a teacher who is graceful, intelligent, humorous and uncommon, and who exudes unique charisma from the inside out, will ignite a boring classroom and will also light up the hearts of students through the teaching process of talking to the heart and shaping the personality with the personality (Cheni, 2003). Charisma refers to "the power to attract people", and teacher charisma refers to the inner, lasting and powerful attraction of teachers to educated people in their professional activities, which is the comprehensive embodiment of teachers' professional level, personality quality and their own cultivation (Zhao, 2018), including the following aspects: charisma of personality, charisma of language, charisma of learning, charisma of teaching, and charisma of teaching. Language charm, academic charm, teaching charm, and image charm.

The teacher's (educator's) personality is the moral level, emotional will, intellectual structure and inner tendencies of behavior that teachers develop in the process of their own professional activities, and is also an important teacher's educational wisdom, which has a huge and far-reaching infectious and attractive effect, affecting not only the teaching effect, but also students' learning interest, moral concepts. It also influences students' interest in learning, moral values, human attitudes and career choices, and has an inspiring, exemplary, moralizing and facilitating effect on learners' development. The teacher's personality has an impact on the process of students' education to a great extent and achieves expectations in the educational effect.

Sukhomlinsky (1994) once said, "The teacher's language skills determine to a great extent the efficiency of the students' mental work in the classroom." The real backbone of this statement is "the efficiency of the students". The charm of language requires both appropriate speed and clear tone, as well as normality, logic, timeliness, inspiration, emotion, motivation, imagery and vividness (Liu, 2006), which can easily create a learning atmosphere, interest and can well mobilise learners' motivation and stimulate their interest in learning (Zhao, 2021). Allowing each student to achieve a pre-determined teaching effect allows students to learn something (Zhou, 2009). A wonderful listening experience for students is that the teacher not only engages them with ideas, but also the teacher as a living, breathing person (Farrin, 2009).

Albert Einstein said, "The only source of respect for a teacher is his or her virtue and talent", and knowledge is like a source of living water that nourishes students. The charisma of knowledge is the inspiration and attraction that a master teacher has to students through his or her profound knowledge, profound expertise, keen insight, rigorous attitude and scientific teaching methods, so that students will consciously imitate and look up to the teacher, thus redoubling their efforts to learn and improve themselves. Nowadays, catechism courses are developing rapidly and knowledge is being updated rapidly. Teachers should break the limitations of traditional teaching, combine the quality of teaching in the classroom, improve classroom teaching on the catechism platform, enhance the skills and level of teachers in online teaching, and improve the learning efficiency of students.

Teaching charisma refers to a teacher's appeal and inspiration to students in teaching activities, which promotes the organic unity of "teaching" and "learning". As Sukhomlinsky said, "Nothing can compare with the teaching charm of a clever, intellectually rich and tireless teacher, which can make students feel so admired and attractive, and inspire their desire to advance with such a powerful force" (Shen, 2003). Comrade Hu Jintao once pointed out that "the hope of national revitalization lies in education, and the hope of educational revitalization lies in teachers, and with a

high-quality teaching team, qualified talents with all-round development can be cultivated". In Cole's survey, 60% of the students who liked a particular teacher liked the subject the teacher was teaching and found the subject more valuable and spent more time in their regular studies (Li, 2006). In this sense, charisma is a form of beauty. He (1995) "beauty should permeate all forms of work inside and outside the classroom". Teaching is a discipline where 'the work of the teacher is art and the teacher is the artist'. Not only as a teacher lecturing, but also as an artist performing, constantly creating beauty in the classroom, giving students beauty to enjoy, attracting their attention, motivating them to learn and ensuring the successful completion of teaching.

According to the classical German aesthete Schiller, the development of human beings from "sensual man" (natural man) to "rational man" (spiritual man) must pass through the intermediate stage of aesthetics (Sun, 2007)." Chinese scholar Qiu (1997) says: "Aesthetic education is not only an important means for human beings to understand and transform the world, but also an important way to achieve the beautification of human beings themselves and to perfect their personality formation". Human beauty includes both external beauty (appearance, static, behavior, manners) and internal beauty (mind, wit, spirit). The Russian writer Chekhov said: "Everything in a person should be beautiful, the face, the clothes, the heart, the mind"; "The clothes are the symbol of culture; the clothes are the image of the mind". According to the Russian educator Ostrovsky: "The charm of a man is not only in his appearance, his clothes and hair style, but more importantly in himself, in his heart; if a man has no inner charm, we often think of him as having no appearance" (Luo, 2001). According to the aesthetician Schiller, "beauty of the heart is spiritual beauty and moral beauty; if the heart is not beautiful, it will not recognize beauty, discover beauty, and create beauty" (Zhu & Wang, 2001). Our scholar is more specific when he argues: "A noble teacher's morality is a good textbook, a powerful spiritual force

that has a subtle influence on young people that is often huge, far-reaching and even lifelong". Beauty in both forms attracts students and gives them a good spiritual treat.

One of the keys is to exercise the teacher's linguistic charm. The educator Sukhomlinsky (1994) once said: "The same content of knowledge can play an educational role in the hands of one teacher, but not in the hands of another. The educational effect of knowledge depends to a large extent on whether it is closely integrated with the teacher's personal spiritual world." As the influence of teachers on their students: "Tell me who you admire and I can tell you what kind of person you are, or at least what your talents, tastes, and personality are."

### **2.3 Conceptual Framework**

The ARCS theoretical model proposed by Keller (1983) suggests that factors influencing motivation to learn include Attention, Relevance, Confidence, Satisfaction. Attention refers to the designer's need to capture and hold the attention of learners in the instructional design requirements. Relevance refers to the presence or absence of relevance of what learners are learning to their own needs. Confidence refers to the extent to which learners believe they can achieve success. Satisfaction refers to the extent to which learners are satisfied with their learning outcomes (completion rate) (Keller 1987). Motivation has been found to be related to a person's work and effort (Keller, 2008). Small and Gluck (1994) argue that learners' motivation is as important as their ability to learn and their academic performance. In the process, they found that motivation was the main factor influencing learners' outcomes and course completion (Brooker, Corrin, De Barba, Lodge, & Kennedy, 2018; Gunawardena, Linder-VanBerschot, LaPointe, & Rao, 2010; Lim 2004; Sujatha & Kavitha 2018). In both traditional and distance education, learners' motivation and achievement (usually measured by examination results) are positively correlated (Sankaran & Bui 2001). In many learning environments, especially self-directed learning environments such as MOOC, the lack of motivation is directly related to

learners ending their learning (Lei 2010) states, based on several empirical studies, that there is automatic and selective attention, and that it is automatic, rather than selective and conscious, attention that is associated with an interested learning process. In interested learning, automatic attention releases more cognitive energy and facilitates the production of representations with a higher degree of coherence, thus improving learning. When the student's attention is engaged, the content of the learning is presented in relation to the learner's learning goals and the closer the relationship the greater the interest will emerge. There are two kinds of tangibles: purpose directed tangibles and process directed tangibles, so it is necessary for the instructional designer to combine the two kinds of tangibles in the best effect. Secondly, according to American psychologist Victor H. Vroom's expectancy theory, the important role of self-confidence in learning motivation cannot be ignored. Liu (2015) Confidence is the primary internal motivation that sustains learners' long term learning and achievement, and growing learners' self-confidence at all times plays a facilitating role in forming and supporting learners' internal motivation for learning. Finally, the results of students' efforts and expected expectations being met will further motivate new learning behaviors, and teachers can build students' satisfaction and stimulate and sustain their motivation by giving them timely feedback, evaluation and encouragement during the classroom teaching process (Qin, 2019). Zheng (2020) used the ARCS motivation model to deeply engage in flipped classroom learning process, thus optimizing the effectiveness of flipped classroom teaching.

We assessed mainly the positive characteristics of attention and satisfaction according to the ARCS components. The results are shown in Table 2.3. The course videos were identified as having incorporated many ARCS strategies.

## **2.4 Conclusion**

This literature review describes and explains the importance of ATFB (Attractive Teacher Features) instructional design, complex MOOC learner motivation,

and describes learner outcomes during or after the course. To some extent, it helps teachers and designers to better understand MOOC learner behavior and to refine instructional design to meet the needs of MOOC learners from the MOOC learner's perspective. We recommend: following a careful instructional design based on a specific model, such as that of Keller (2010) or Dick et al. (2015). This is because various studies have shown that dropout rates decrease when learners are satisfied with the programme and the instructional design (Alraimi et al., 2015; Castaño, Maiz, & Garay, 2015; Khalil & Ebner, 2013; Gütl, Rizzardini, Chang, & Morales, 2014; Hew, 2016; Hone & El Said, 2016; Nawrot & Doucet, 2014; Whitmer, Schiorring, & James, 2014; Yousef, Chatti, Schroeder, & Wosnitza, 2014). The final outcome of MOOC learning depends on the learners themselves. The final outcome of MOOC learning depends on the learner's own ability to learn and whether they have a strong belief in learning, with continuous and uninterrupted learning being highly relevant.

Table 2.3: Analysis of Available Materials According to ARCS

Components of ARCS	Features
Attention	<p>Positive features. From teacher charisma</p> <ul style="list-style-type: none"> <li>- Teachers have creative ideas to engage students in MOOC teaching.</li> <li>- Teachers are well prepared to engage students in MOOC teaching.</li> <li>- Teachers respect students in MOOC teaching thereby engaging their attention.</li> <li>- Teachers use humour in MOOC teaching to capture students' attention.</li> </ul> <p>From teacher character</p>

(Continued)



Table 2.3 (Continued): Analysis of Available Materials According to ARCS

Components of ARCS	Features
Attention	<ul style="list-style-type: none"> <li>- In MOOC teaching, the optimistic character of the teacher keeps the students learning until the end.</li> <li>- In MOOC teaching, the friendly personality of the teacher keeps the students learning until the end.</li> </ul> <p>From the behavior of teachers</p> <ul style="list-style-type: none"> <li>- In MOOC teaching, the teacher provides a good and interesting example to attract students' attention.</li> <li>- The friendly teachers and smiles in the MOOC teaching made me want to study like a movie until the end.</li> <li>- The friendly teachers and smiles at the MOOC teaching made me want to play like a game until the end.</li> <li>- In MOOC teaching, teachers behaved in an interesting and creative way that reminded me of Chow Sing Chi in Chinese films.</li> <li>- A beautiful teacher in MOOC teaching made me enthusiastic about logging into each course.</li> </ul> <p>From student motivation</p> <ul style="list-style-type: none"> <li>- (Attractive Teacher Features) Instructional design motivates learners.</li> <li>- Teachers use an enthusiastic tone of voice to keep learners' attention during MOOC instruction.</li> </ul>

(Continued)

Table 2.3 (Continued): Analysis of Available Materials According to ARCS

Components of ARCS	Features
Attention	<ul style="list-style-type: none"> <li>- Teachers use specialist knowledge in MOOC teaching to engage learners' attention.</li> <li>- Teachers use creative and interesting subject matter in MOOC teaching to capture learners' attention.</li> <li>- Teachers encourage and care for students in MOOC teaching to help learners focus.</li> </ul>
Relevance	<p>Positive features.</p> <ul style="list-style-type: none"> <li>- The teacher's competency in MOOC teaching is high common sense.</li> <li>- The teacher's competency in MOOC teaching is a high level of technical proficiency.</li> <li>- The teacher's competence in MOOC teaching is professional.</li> <li>- In MOOC teaching, teachers increase their interaction with learners.</li> </ul>
Confidence	<p>Positive features.</p> <ul style="list-style-type: none"> <li>- (Attractive Teacher Features) receive higher student ratings.</li> </ul>

(Continued)

Table 2.3 (Continued): Analysis of Available Materials According to ARCS

Components of ARCS	Features
Satisfaction	<p>Positive features.</p> <ul style="list-style-type: none"> <li>- On the MOOC platform, learners learn what they want to learn.</li> <li>- On a MOOC platform, the knowledge gained by learners in the learning process can enhance their work.</li> <li>- On the MOOC platform, learners complete their studies in a way that helps them in their professional development.</li> </ul>

## **CHAPTER 3**

### **RESEARCH METHODS**

This chapter discusses the use of exploratory mixed methods. The chapter is divided into seven sections.

- 3.1 Exploratory Mixing Method
- 3.2 Research Objectives and Evaluation
- 3.3 Study Design
- 3.4 Data Collection
- 3.5 Qualitative Analysis
- 3.6 Quantitative Analysis
- 3.7 Validity and Reliability
- 3.8 Conclusion

#### **3.1 Exploratory Mixing Method**

3.1.1 Qualitative analysis. The use of induction and comparison for analysis and synthesis, processing the various information materials obtained, so as to grasp the properties and characteristics of things.

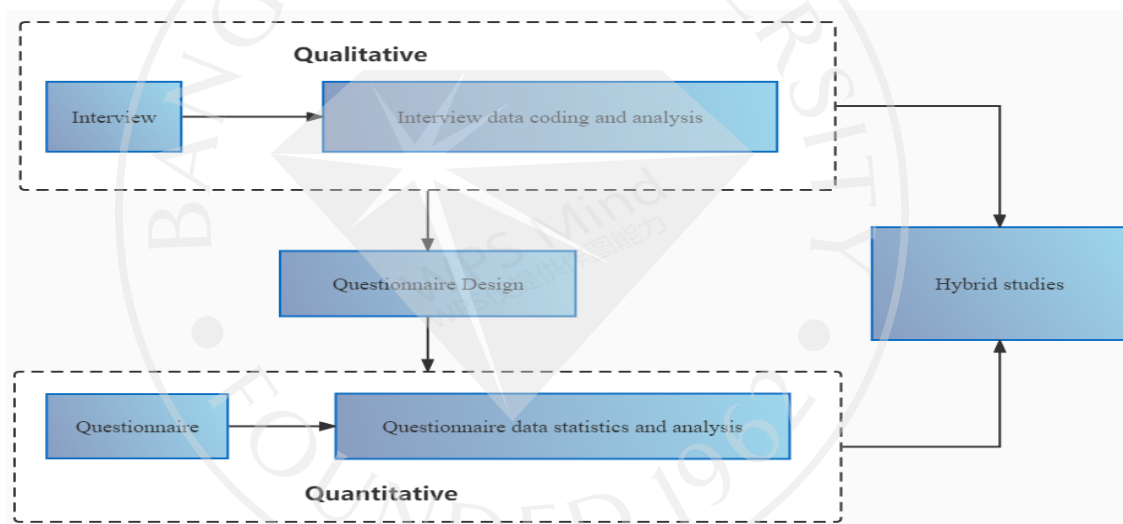
3.1.2 Quantitative analysis. It can make people know the indicators of the research object and their values more precisely, so as to reveal the law of change more scientifically and predict the development trend of things.

This study uses an exploratory mixed methods approach, combining qualitative and quantitative analysis. Firstly, a qualitative analysis was conducted, then a quantitative analysis was carried out based on the corresponding results of the qualitative analysis, and finally, conclusions were drawn based on the integration of the data from the qualitative and quantitative analyses. This study is based on in-depth interviews with representative research participants on the "Qing Shu Xue Tang" online learning platform for adult higher education at Baise University. Based on the

interviewees' responses, the current situation and problems of the motivation of MOOC learners were understood. Based on the qualitative analysis and aggregated interview data, a MOOC learner motivation consent questionnaire with multiple evaluation indicators was created and distributed online to MOOC learners to obtain comprehensive consent evaluation data for statistical analysis and aggregation.

This combination of interviews (qualitative analysis) and questionnaires (quantitative analysis) is an exploratory mixed method. As shown in Figure 3.1.

Figure 3.1: Describes the Research Process for the Exploratory Mixed Methods



Source: Li, Z. (2020). *Explorative analysis of BU library redesign to become a creative space: From BU international students' point of view*. Unpublished master' thesis, Bangkok University, Thailand.

### 3.2 Research Objectives and Evaluation

Assessment is included to determine if positive objectives of attention and satisfaction are included. As these were MOOC courses, it was not possible to observe students' responses to the attention and satisfaction strategies. As shown in Table 3.1.

Table 3.1: Incentive Targets and Assessment according to ARCS

Motivational goals	Evaluation
On the MOOC platform, there is a wide range of information from teacher charisma, teacher personality, teacher behavior that will capture the attention of students, whether student motivation is strong and provide sufficient clarity as well as the structure of the course.	The interviews asked students (Attractive Teacher Features) whether the instructional design caught their attention and whether they performed strongly.
Students will develop a perception of the relevance of the MOOC as demonstrated by the competence of the teacher.	Surveys and interviews asked whether what they had learned from the MOOC was a result of teacher competence.
Students will gain enough confidence to believe that they can achieve their goals.	The interview asks whether confidence levels have changed during the MOOC (Attractive Teacher Features).
Students will feel that they have gained something from the MOOC.	The interviews asked about the application of what they had learned from the MOOC to their lives and other subject areas.

### 3.3 Study Design

Firstly, based on the literature review, the factors affecting MOOC learners' motivation were identified, the corresponding keywords were summarised, and open-ended interview questions were designed based on the commonality of the

keywords. Secondly, a list of interview questions was designed by recording the sources and citations of the corresponding keywords in a table. Next, the keywords from the interview transcripts were interviewed and analysed to complete this IS conceptual framework. Finally, was used to administer the questionnaire using the "Wen Juan Xing" online survey software. This is shown in Table 3.2.

Table 3.2: Study steps for the Exploratory Mixed Method

Step 1	Summarize the corresponding keywords
Step 2	Search for keyword commonalities and design open-ended interview questions
Step 3	Design a list of interview questions by recording the source and citation of the corresponding keywords in a table
Step 4	Interviews and analysis of key words from the interview transcripts to complete this IS conceptual framework
Step 5	Questionnaires are distributed using the online survey software "Questionnaire Star"

### 3.4 Data Collection

Search the relevant literature on the Internet or in a network of academic journals according to the topic and research question of this IS. Using ARCS motivation theory, a number of keywords were summarised. As shown in Table 3.3.

Table 3.3: Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
ATFB (Attractive teacher characteristics)	Attractiveness, Student evaluation	Riniolo, Johnson, Sherman, & Misso (2006)	Hot or Not: Do Professors Perceived as Physically Attractive Receive Higher Student Evaluations?	The data shows that professors who are perceived as attractive receive higher student ratings. Attractive professors stimulate learners' interest. At the same time, gaining sufficient confidence and satisfaction from multiple sources.	1. Do you think ATFB (Attractive Teacher Features) get higher student evaluations?

(Continued)



Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
ATFB (Attractive teacher characteristics)	Effective teachers (calm, tolerant, humorous, friendly, well-prepared teachers), student motivation	Lupascu et al (2014)	Characteristics of effective teacher	The study investigated high school students' perceptions of the personal and professional characteristics of teachers. Students appreciated different traits in teachers, such as: calm, tolerant, sense of humour, friendly and well-prepared teachers.	2. (1) Do you think ATFB (Attractive Teacher Features) is calm? (2) Do you think ATFB (Attractive Teacher Features) is tolerant? (3) Do you think ATFB (Attractive Teacher Features) is having a sense of humor?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
ATFB (Attractive teacher characteristics)		Lupascu et al (2014)	Characteristics of effective teacher		(4) Do you think ATFB (Attractive Teacher Features) is friendly? (5) Do you think ATFB (Attractive Teacher Features) is well prepared?
	Teacher Behavior Checklist, Excellent Teachers	Liu, Keeley, & Buskist (2015)	Chinese College Students' Perceptions of Characteristics of Excellent Teachers	Compared to Japanese and American students, Chinese students place less emphasis on their teachers being	3. (1) Do you think ATFB (Attractive Teacher Features) is high skill level?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				<p>approachable, confident, enthusiastic, knowledgeable, communicative and good listeners. Interestingly, they only emphasised one quality, namely technical ability.</p> <p>This finding is intriguing, but may be due to the fact that Chinese students prefer highly technical teachers and</p>	<p>(2) Do you consider ATFB (Attractive Teacher Features) to be authoritative?</p> <p>(3) Do you consider ATFB (Attractive Teacher Features) to be professional?</p> <p>(4) Do you think ATFB (Attractive Teacher Features) is mutual respect?</p> <p>(5) Do you think ATFB (Attractive Teacher Features) is setting daily and term goals?</p>

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				<p>consider technical ability to be one of the important qualities of a good university teacher.</p> <p>Chinese students place more importance on the authority, professionalism and respect of their teachers, as well as setting daily and semester goals,</p>	<p>6) Do you think ATFB (Attractive Teacher Features) is conducive to classroom discussion?</p> <p>(7) Do you think ATFB (Attractive Teacher Features) is enthusiasm?</p> <p>(8) Do you think ATFB (Attractive Teacher Features) is humorous?</p>

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				promoting classroom discussions and facilitating critical thinking. Chinese students are also less likely to recognise the following qualities: creativity/interesting, encouraging and caring, happy/positive attitude/humour, humility and rapport.	(9) Do you think ATFB (Attractive Teacher Features) is creative/interesting? (10) Do you think ATFB (Attractive Teacher Features) is encouraging/caring for students?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
Pedagogical design	Teaching design, Teaching materials, Completion rate	Giasiranis & Sofos (2020)	The Influence of Instructional Design and Instructional Material on Learners' Motivation and Completion Rates of a MOOC Course	Empirical research has shown that good instructional design can motivate learners and improve the performance of a program. Findings show that applying quality instructional materials to design courses can meet learners' needs.	4. (1) Do you think ATFB (Attractive Teacher Features) instructional design affects the overall motivation of learners and the four factors of ARCS model (Attractive Teacher Features)? (2) Do you think ATFB (Attractive Teacher Features) instructional design meets the needs of learners?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				Learners apply their knowledge to practical problems, motivate them and ultimately achieve high completion rates.	(3) Do you think ATFB (Attractive Teacher Features) instructional design motivates learners? (4) Do you think ATFB (Attractive Teacher Features) instructional design affects learners' course completion rate?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
	Pedagogical design, Learner engagement, Completion rate	Shah et al. (2022)	Learner-centric MOOC model: a pedagogical design model towards active learner participation and higher completion rates	This study uses a learner-centered instructional design model. The LCM model aims to address some of the key instructional challenges in MOOC, such as poor learner connectivity, low engagement and participation,	5. (1) Do you think LCM (learner-centered model) instructional design, if not to meet the needs of different learners, will affect the completion rate? (2) Do you think LCM (learner-centered model) instructional design, such as poor learner connection, will affect the completion rate?

(Continued)



Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				and the inability to meet the needs of diverse learners, all of which contribute to the low average completion rate of MOOC. The LCM model of instructional design was found to play a key role in the success of the MOOC by examining MOOC completion rates, participant engagement with LCM elements and	(3) Do you think the teaching design of LCM (learner-centered model), such as learner engagement and low learner engagement, will affect the completion rate? (4) Do you think LCM's (learner-centered model) instructional design will appeal to learners?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				<p>learner perceptions of the model, which organises and translates all the integrated instructional elements of the MOOC into learner-centred dimensions that promote active participation and enhance engagement by fostering interaction.</p> <p>Enhancing learning content and peer engagement.</p>	

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
Learner motivation	Attention, Relevance, Confidence, Satisfaction	Li & Moore (2018)	Motivating Students in Massive Open Online Courses (MOOCs) Using the Attention, Relevance, Confidence, Satisfaction (ARCS) Model	The results reveal that learners are selective in their attention to courses of interest, derive relevance out of their own factors, have high levels of confidence and derive satisfaction from multiple sources.	6. (1) Are you continuing with the course? (2) On the MOOC platform, does the teacher use an enthusiastic tone to keep learners' attention? (3) On the MOOC platform, can teachers use professional knowledge to attract learners' attention?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
					<p>(4) On the MOOC platform, do teachers use creative and interesting topics to explain content to attract learners' attention?</p> <p>(5) In a MOOC platform, can teachers encourage and care for students help learners focus?</p> <p>(6) On the MOOC platform, does mutual respect between teachers and learning attract learners' attention?</p>

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
					<p>(7) Are learners learning what they want to learn on MOOC platforms?</p> <p>(8) What connections do learners make in the process of learning on the MOOC platform?</p> <p>(9) On a MOOC platform, do learners learn what they want to learn after they finish their study?</p> <p>(10) How do you feel when you accomplish the objectives of this course?</p>

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
	Pretest (measure learner's course achievement and attitude towards learning the course) Course Interest Survey (CIS)	Hasan & Kumtepe (2019)	Effects of the ARCS-V-based motivational strategies on online learners' academic performance, motivation, volition, and course interest	This study supports previous research that the systematic design and application of motivational strategies in the context of a motivational model may increase distance learners' motivation, interest in the course, volition and performance levels, as indicated by the theory.	7. On the MOOC platform, do learners have the willpower to complete the course?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
	MOOC learners, Negative motivation and Low pass rates	Wu and Bai (2018)	Why Do the MOOC Learners Drop Out of the School? Based on the Investigation of MOOC Learners on Some Chinese MOOC Platforms	The analysis found that the factors influencing the negative motivation of Chinese MOOC learners include learners' own willpower and perseverance, the authenticity of the learning situation, their English level, the effectiveness of	8. (1) What is the learning effect of learners on MOOC platform? (2) On the MOOC platform, what do learners think of the effect of the video? (3) Do you think there is a conflict between work or course study and MOOC study?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				the MOOC's videos, and the contradiction between work or course study and MOOC learning.	
	System quality, Attitude and course quality	Albelbisi (2020)	Development and validation of the MOOC success scale (MOOC-SS)	The results indicate that the MOOC Success Scale (MOOC- ss) has good reliability and validity and is suitable for measuring the success of the MOOC.	9. (1) On the MOOC platform, how do learners think the system quality (such as easy to learn and operate) is?

(Continued)



Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				Regression analysis showed that three significant factors, system quality, attitude and course quality, had a significant effect on MOOC learner satisfaction.	(2) On the MOOC platform, how do learners perceive the quality of the course (e.g., design, relevance of output, ease of understanding of course material)? (3) On MOOC platforms, how do learners feel about their attitudes (such as using to feel confident, pleasant and interesting)?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
Completion Rate	The learning experience with the highest completion rate, highest page views, and highest average time spent	Nurbiha (2019)	Using Learning Analytics to Improve MOOC Instructional Design	The results found that engaging students at the first impression of their visit was important in encouraging them to stay in the course. In addition to this, problem-based learning helps to promote student empowerment and engagement.	

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				Activities should be designed for different levels of complexity and difficulty. Instructional designers should also allow some time for students to reflect on their course learning and provide feedback.	

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
	Learner's motivation tendency, obtaining certificate	Robert L. Moore; Chuang Wang 2020	Influence of learner motivational dispositions on MOOC completion	As mentioned earlier, some researchers have pointed to the low cost of non-completion or the absence of penalties as factors in low MOOC completion rates. To address low completion rates, many MOOCs offer certificates as a form of completion incentive. Our research also provides support.	

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				This study found that students who were confident in earning a certificate were more likely to succeed than those without specific goals.	
	Completion of the learners and the satisfaction of completion, Benefits of completion	Nipada Trirat (2020)	Completion Rate, Satisfaction and Opinion on Thai Massive Open Online Courses:	Which encouraged learners to learn proactively and interact with the learning media, activities, and instructor periodically was	10. (1) On the MOOC platform, does learning media stimulate the curiosity of learners and help them to the end?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
			Reflection on SWU MOOC's Learners	one of the key factors for successful in MOOC environment. The course content corresponded well to the needs of the population as a whole. The learners had basic knowledge beforehand and would like to learn for upskill or reskill their knowledge.	(2) Does providing knowledge and information through various learning media (video, textbook, hands-on) on a MOOC platform help me understand the content better?

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				<p>They were able to apply knowledge directly to their professional field.</p> <p>Providing up-to-date information that is exactly what learners need, relevant to their work, and easy to understand can help learners realize that what they are learning might be useful or useful.</p>	<p>(3) On the MOOC platform, do the learning activities in the course keep the learners interested and continue to study until the end of the course?</p>

(Continued)

Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
				This knowledge can be applied immediately.	<p>(4) Do learners complete the course with new knowledge about technology that they can use in the teaching and learning of their own students?</p> <p>(5) Do learners complete the course with new tools for self-improvement?</p> <p>(6) Can learners complete the course for use in the workplace?</p>

(Continued)



Table 3.3 (Continued): Findings and variables from Relevant Literature

Variables in a literature review (common)	Variables in a literature review	Author and Year	Title	Literature Results	Interview Questions
					(7) Does the learner receive a certificate for completing the course and passing the course assessment?

### 3.5 Qualitative Analysis

The qualitative study used semi-structured specific questions so that the researcher could guide the interviews towards the research objectives. Based on the keyword count in Table 3.3, 22 interview questions were designed in conjunction with the research objectives to form a semi-structured interview questionnaire. The questionnaire was designed with the ATFB (Attractive Teacher Features) instructional design assessment MOOC learner motivation and completion rate factors to enable respondents to better understand the questions and communicate.

The main sample questions for the semi-structured interviews were as follows.

QUESTION 1: Are you continuing to study a MOOC?

QUESTION 1: Are you continuing to study a MOOC?

QUESTION 2: What do you think are the ATFB (Attractive Teacher Features) (e.g. humorous, creative, funny, calm, tolerant, friendly, well-prepared, respectful, encouraging/ concerned about students)?

QUESTION 3: Do you think ATFB (Attractive Teacher Features) will be rated higher by students?

QUESTION 4: What kind of personality do you think teachers have that keeps you learning until you finish the course (e.g. optimistic, grumpy, aloof, friendly)?

QUESTION 5: Do you agree that I should be allowed to provide a good and interesting example in MOOC teaching?

QUESTION 6: Do you agree that the friendly teachers and smiles of the MOOC teaching made me want to study like a movie until the end?

QUESTION 7: Do you agree that the friendly teachers and smiles of the MOOC teaching made me want to play like a game until the end?

QUESTION 8: Do you agree that teachers are heroes in our minds when it comes to MOOC teaching?

QUESTION 9: Do you agree that teachers in MOOC teaching act as funny and creative as Stephen Chow in Chinese movies?

QUESTION 10: Do you agree that MOOC courses with a nice teacher make me enthusiastic about logging into each course?

QUESTION 11: Do you agree that the high level of general knowledge of the MOOC allows me to enjoy learning?

QUESTION 12: Do you think that ATFB (Attractive Teacher Features) increases interaction with learners?

QUESTION 13: What would you say are the ATFB (Attractive Teacher Features) competencies (e.g. high technical level, authority, professionalism)?

QUESTION 14: Do you think ATFB (Attractive Teacher Features) instructional design motivates learners?

QUESTION 15: Does the teacher's use of an enthusiastic tone keep the learner's attention on the MOOC platform?

QUESTION 16: Do teachers use specialist knowledge to teach on a MOOC platform to engage learners?

QUESTION 17: Do teachers use creative and interesting subject matter on MOOC platforms to deliver content that engages learners?

QUESTION 18: In MOOC platforms, do teachers encourage and care for their students to help learners focus?

QUESTION 19: Does mutual respect between teachers and learners on a MOOC platform attract the attention of learners?

QUESTION 20: Do learners learn what they want to learn on a MOOC platform?

QUESTION 21: What links do learners gain in the learning process on the MOOC platform (e.g. links between the knowledge gained in work and career development)?

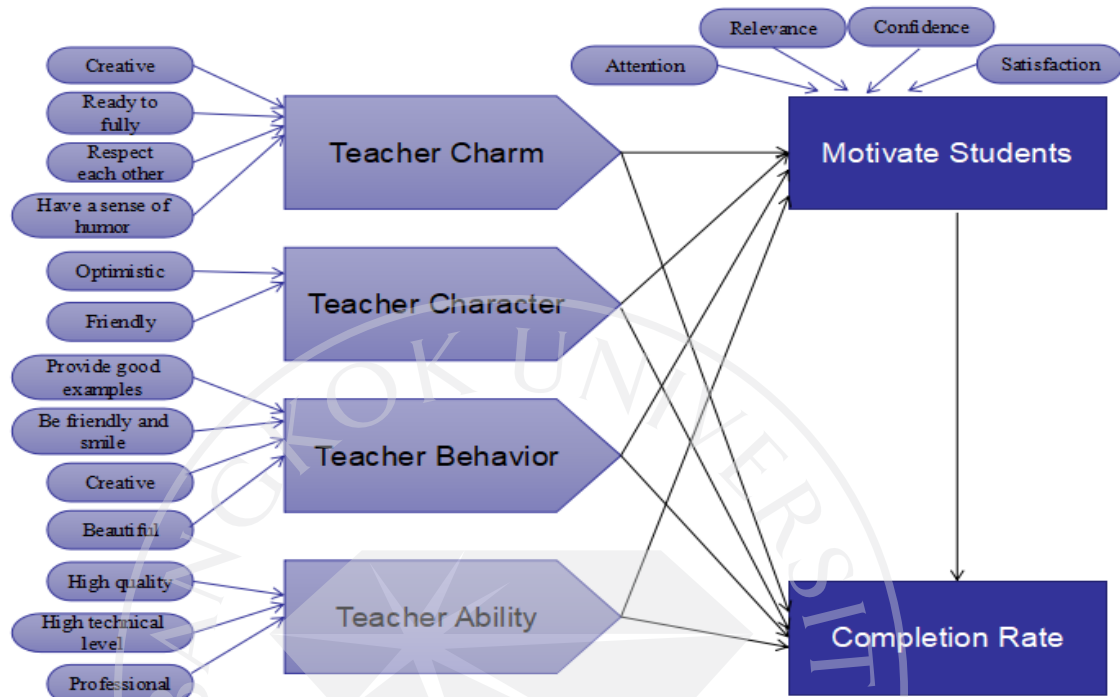
QUESTION 22: What do learners learn that they want to learn when they are done with their studies on a MOOC platform?

A detailed format of the interview guide can be found in Appendix A.

The researcher interviewed 10 students for 10-15 minutes. All their answers were recorded. A large amount of raw data was collected from the interviews, and then relevant keywords and key sentences were tagged and categorised in the raw interview transcripts, and coded, classified and summarised according to the content of the tags, in order to identify the factors that influence the motivation and completion rates of MOOC learners assessed by the ATFB (Attractive Teacher Features) instructional design. A detailed format of the narrative codes and themes obtained from the original data interviews can be found in Appendix B.

Based on the findings from the review of relevant literature, qualitative analysis and interviews, the researcher developed the conceptual framework for this study. This is illustrated in Figure 3.2.

Figure 3.2: Conceptual Framework of the Study



### 3.6 Quantitative Analysis

Based on the main variables or key elements derived from the above analysis, a questionnaire (demographic, multiple choice, may contain single, multiple choice, etc.) is designed and can be used to collect other people's answers via "Questionnaire Star" to obtain quantitative analysis data. Respondents' responses to the questionnaire were based on a 5-point Likert scale, with each question having 5 response options, namely "strongly disagree", "disagree", "neutral", "agree", "strongly agree". The five response options were recorded as 1, 2, 3, 4 and 5, and the algebraic sum was calculated from the respondents' scores for each item to obtain the total individual attitude score.

The data was collected from 7 June 2022 to 15 June 2022 through the online survey "Wen Juan Xing". 235 valid questionnaires were collected, of which 235 were valid and 0 were invalid. See Appendix C for details of the interview questionnaire.

### 3.7 Validity and Reliability

In order to ensure the validity of this study, content validity was used. Content validity refers to the extent to which a set of test questions tests what should be tested or whether the content tested reflects the requirements of the test, i.e. the degree of representativeness and coverage of the test. In order to conduct content validity testing for this study, four experts were invited to assess the validity of the interview questionnaire. All of them are professors or Ph.D. at Baise University and have been teaching MOOC at Baise University for many years. As shown in the appendix at D.

The evaluations of the four experts were used to control whether an item should be included. The validity of content (IOC) was scored 1 or 0. Over 75% of the items were acceptable survey items, validity review form. As shown in the appendix E.

#### **Conclusion**

The independent variables, mediating variables, dependent variables and evaluation indicators were identified through a study of relevant literature and qualitative interviews. We identified independent variables and evaluation indicators that could help the ATFB (engaging teacher specific) instructional design to be relevant to MOOC learner motivation and completion rates, providing data to support the design of the conceptual framework and questionnaire. Research methods and instruments were identified; interview questionnaires and survey questionnaires were developed and evaluated for reliability and validity to ensure the scientific validity of the questionnaires.

## CHAPTER 4

### DATA ANALYSIS

This chapter is structured as follows:

4.1 Frequency of Basic Information

4.2 Reliability Analysis

4.3 Calibration Analysis

4.4 Correlation Analysis

4.5 Regression Analysis

4.6 Intermediary Analysis

#### 4.1 Frequency of Basic Information

As can be seen from Table 4.1 for gender, the highest percentage is "female" at 60.00%. The percentage of the male sample was 40.00%. 48.09% of the samples were "Above 30 years old". 52.34% of the samples were "More than 5 years". In terms of salary, over 50% of the samples were "Under 3000". A further 31.06% of the samples were in the 3000-5000 range.

Table 4.1: Results of Frequency Analysis of Basic Information

Name	Options	Frequency	Percentage (%)	Cumulative percentage (%)
Gender	Male	94	40.000	40.000
	Female	141	60.000	100.000

(Continued)

Table 4.1 (Continued): Results of Frequency Analysis of Basic Information

Name	Options	Frequency	Percentage (%)	Cumulative percentage (%)
Age	Under 21 years old	8	3.404	3.404
	21-25 years old	54	22.979	26.383
	26-30 years old	60	25.532	51.915
	Above 30 years old	113	48.085	100.000
Working Hours	I haven't a job yet	25	10.638	10.638
	Within three years	37	15.745	26.383
	3-5 years	50	21.277	47.660
	More than 5 years	123	52.340	100.000
Salary	Under 3000	136	57.872	57.872
	3000-5000	73	31.064	88.936
	5000-10,000	23	9.787	98.723
	More than 10000	3	1.277	100.000
Total		235	100.0	100.0

#### 4.2 Reliability Analysis

Reliability Analysis is used to ensure the validity of model fit evaluations and hypothesis testing. In this paper, the Cronbach's Alpha reliability coefficient is used to check the degree of consistency of the research variables of the questionnaire across the measured items. DeVellis (1991) argues that for a variable to have good reliability the Cronbach's alpha coefficient must be greater than 0.7.



Table 4.2: Reliability Analysis

Scale	Cronbach's Alpha	Number of items
Teacher Charisma	0.857	4
Teacher personality	0.728	2
Teacher behavior	0.878	5
Teacher Competence	0.847	4
Motivating students	0.878	6
Completion rate	0.840	4
Overall	0.921	25

Table 4.2 shows that the overall Cronbach's Alpha of this study's questionnaire was 0.921, and the Cronbach's Alpha of the included variables teacher charisma, teacher personality, teacher behavior, teacher competence, motivating students and completion rate were 0.857, 0.728, 0.878, 0.847, 0.878 and 0.840 respectively, all greater than 0.7, indicating that the questionnaire has good reliability.

#### 4.3 Calibration Analysis

Validity Analysis is an important part of empirical analysis. Often researchers do not have enough time or resources to develop new measurement tools, so to save time and cost they refer to existing measurement tools, such as questionnaires, and use existing measurement tools to help the research discover whether the same measurement tools are compatible across studies. It is therefore important to test whether the measurement tools are valid and accurately applied and interpreted for the subject of the current study.

For questionnaires, content validity and structural validity are usually used. The questionnaire used in this study was constructed based on a review of the literature indicating the relationship or association between variables, and the wording

and presentation of the items were further modified and refined based on the results of the pre-survey, so that the scale can be considered to have the required content validity. In this study, the focus is on the structural validity, which refers to the ability of the items to measure the variables being measured (Cai, Hughes, & Yin, 2009), and the scale's structural validity was demonstrated by conducting exploratory factor analysis (EFA) on the data collected.

Generally for exploratory factor analysis to be carried out a feasibility test for factor analysis needs to satisfy 2 conditions:

- 1)  $KMO > 0.7$
- 2) Bartlett's spherical test is significant (Sig.  $< 0.05$ ).

Exploratory factor analysis using SPSS 22.0 was conducted to perform KMO and Bartlett's spherical tests on the scales and the results are shown in Table 4.3.

Table 4.3: Questionnaire scales KMO and Bartlett's Test

KMO Number of sample suitability measurements.		0.915
Bartlett Sphericity Test	Approximate cardinality	2924.659
	Freedom	300
	Significance	0.000

Using factor analysis for information enrichment research, the study data was first analysed for suitability for factor analysis, as can be seen from Table 4.3: the KMO was 0.915, which is greater than 0.7, meeting the prerequisite requirements for factor analysis, implying that the data can be used for factor analysis research. As well as the data passed the Bartlett's sphericity test ( $p < 0.05$ ), indicating that the research data is suitable for factor analysis.

Table 4.4: Total Variance Explained

Ingredients	Initial Eigenvalue			Extraction of sum of squares of loads			Sum of squared rotating loads		
	Total	Percentage Variance	Cumulative %	Total	Percentage Variance	Cumulative %	Total	Percentage Variance	Cumulative %
1	8.782	35.128	35.128	8.782	35.128	35.128	3.857	15.428	15.428
2	2.043	8.172	43.300	2.043	8.172	43.300	3.471	13.884	29.313
3	1.999	7.998	51.298	1.999	7.998	51.298	2.895	11.582	40.894
4	1.913	7.652	58.950	1.913	7.652	58.950	2.828	11.311	52.206
5	1.326	5.305	64.254	1.326	5.305	64.254	2.462	9.849	62.055
6	1.092	4.368	68.622	1.092	4.368	68.622	1.642	6.567	68.622
7	0.658	2.631	71.253						
8	0.639	2.557	73.810						
9	0.572	2.287	76.098						
10	0.528	2.114	78.212						
11	0.511	2.044	80.256						

(Continued)

Table 4.4 (Continued): Total Variance Explained

Ingredients	Initial Eigenvalue			Extraction of sum of squares of loads			Sum of squared rotating loads		
	Total	Percentage Variance	Cumulative %	Total	Percentage Variance	Cumulative %	Total	Percentage Variance	Cumulative %
12	0.470	1.882	82.138						
13	0.448	1.793	83.931						
14	0.424	1.694	85.625						
15	0.402	1.606	87.232						
16	0.382	1.529	88.761						
17	0.378	1.512	90.273						
18	0.364	1.458	91.731						
19	0.345	1.381	93.112						
20	0.338	1.350	94.462						
21	0.328	1.314	95.776						
22	0.291	1.164	96.940						

(Continued)

Table 4.4 (Continued): Total Variance Explained

Ingredients	Initial Eigenvalue			Extraction of sum of squares of loads			Sum of squared rotating loads		
	Total	Percentage Variance	Cumulative %	Total	Percentage Variance	Cumulative %	Total	Percentage Variance	Cumulative %
23	0.275	1.101	98.040						
24	0.249	0.996	99.037						
25	0.241	0.963	100.000						
Extraction method: Principal component analysis.									

Table 4.4 shows the analysis of the extracted factors and the amount of information extracted from the factors rate was 68.622%.

Figure 4.1: Gravel Figure

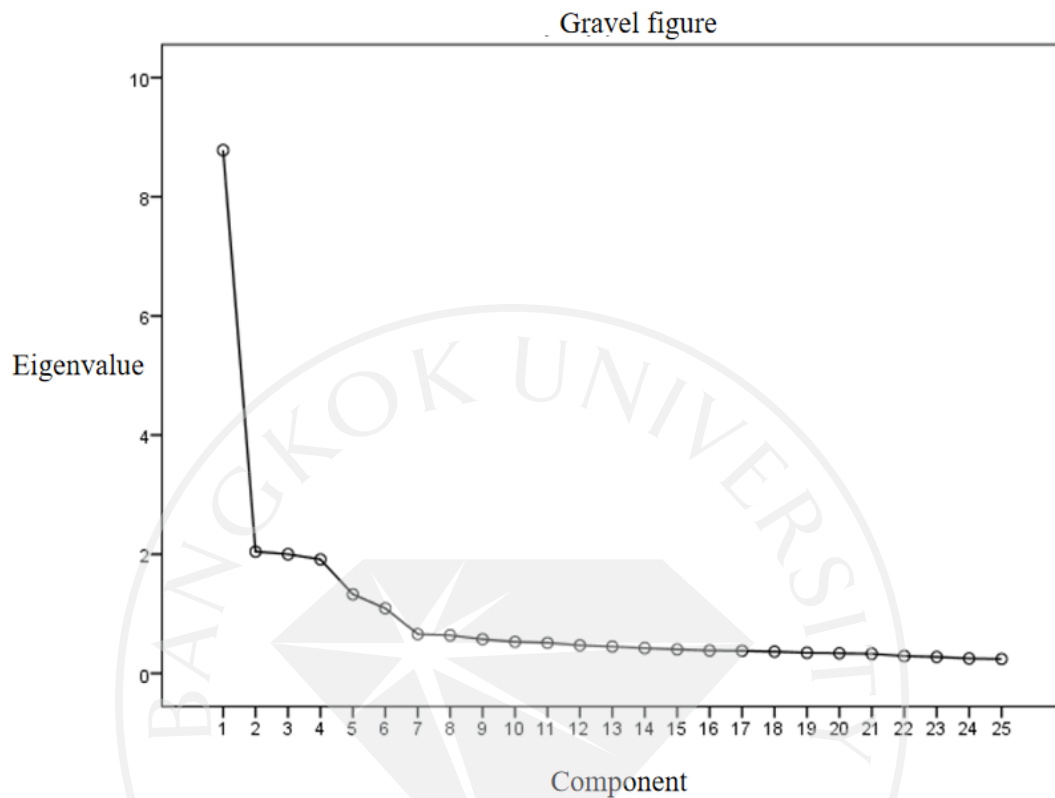


Figure 4.1 is the principal factor scatter plot, from which you can visually view the number of factors to be extracted, it is actually based on the data in the "Total" column under the "Initial Eigenvalue" column in the plot, and the eigenvalues are arranged in descending order. In fact, it is a scatter plot of the principal components according to the size of the Eigen roots. As can be seen from the graph, the Eigen roots after the 6th factor in the graph tend to change slowly and the eigenvalues are less than 1. It can be seen that from the 7<sup>th</sup> principal component onwards the characteristic roots are all very low, and the graph illustrates from another side that only 6 principal components need to be extracted.

Table 4.5: Rotated Component Matrix

Variables		Ingredients					
		1	2	3	4	5	6
Motivating students	A17	0.779	0.141	0.123	0.167	0.110	-0.014
	A21	0.751	0.071	0.067	0.043	0.192	0.033
	A18	0.729	0.128	0.102	0.132	0.263	-0.024
	A19	0.712	0.235	0.098	0.138	0.201	0.136
	A22	0.705	0.162	0.168	0.159	0.111	0.163
	A20	0.702	0.189	0.131	0.067	0.128	0.237
Teacher behavior	A9	0.194	0.802	0.109	0.096	0.160	0.109
	A8	0.069	0.793	0.116	0.092	0.097	0.137
	A12	0.144	0.776	0.153	0.086	0.112	-0.022
	A10	0.243	0.765	0.086	0.103	0.138	-0.040
	A11	0.158	0.732	0.107	0.217	0.156	0.091
Teacher Charisma	A1	0.093	0.143	0.830	0.096	0.162	0.001
	A2	0.172	0.116	0.814	0.025	0.187	0.075
	A3	0.096	0.101	0.766	0.141	0.143	0.118
	A4	0.181	0.159	0.746	0.160	0.127	0.106
Teacher Competence	A14	0.224	0.064	0.151	0.807	0.069	0.002
	A13	0.165	0.151	0.030	0.784	0.148	0.035
	A15	0.119	0.193	0.169	0.782	0.059	0.071
	A16	0.038	0.105	0.072	0.772	0.200	0.144

(Continued)

Table 4.5 (Continued): Rotated Component Matrix

Variables		Ingredients					
		1	2	3	4	5	6
Completion Rate	A5	0.213	0.243	0.202	0.164	0.748	0.063
	A23	0.363	0.191	0.146	0.089	0.705	0.134
	A25	0.250	0.112	0.241	0.130	0.690	0.160
	A24	0.226	0.201	0.202	0.220	0.666	0.092
Teacher	A6	0.115	0.029	0.090	0.109	0.162	0.854
Personality	A7	0.182	0.154	0.145	0.090	0.116	0.809

The data from this study were rotated using the maximum variance rotation method (Varimax) in order to find the correspondence between the factors and the study items. Table 4.5 shows the information extracted from the factors for the study items and the correspondence between the factors and the study items, as can be seen from Table 4.5. After ensuring that the factors extracted most of the information from the study items, the correspondence between the factors and the study items was analyses (an absolute value of the factor loading coefficient greater than 0.5 indicates that there is a correspondence between the item and the factor). Six factors were obtained, so the questionnaire has good validity.

#### 4.4 Correlation Analysis

In the previous section, the structure of the dimensions and the corresponding questions were determined through validity and reliability analyses, and the mean scores of the questions of each dimension were calculated as the scores of this dimension, and then correlation analyses were conducted. The correlation analysis is mainly to study the correlation between variables, and the correlation coefficient takes a range between -1 and 1. The larger the absolute value, the stronger the correlation



between variables. Haozheng (2006) proposed a detailed classification of correlation coefficients,  $|r|=1$ , perfectly correlated;  $|r|\leq 0.70 < 0.99$ , highly correlated;  $0.40 \leq |r| < 0.69$ , moderately correlated;  $0.10 \leq |r| < 0.39$ , lowly correlated;  $|r| < 0.10$ , weakly or not correlated.



Table 4.6: Pearson Correlation

	Average	Standard	Gender	Age	Working	Salary	Teacher	Teacher	Teacher	Teacher	Motivating	Completion
	deviation				hours		Charisma	personality	Behavior	Competence	students	rate
Gender	0.600	0.491	1									
Age	3.183	0.904	-0.171**	1								
Working hours	3.153	1.043	-0.239***	0.677***	1							
Salary	1.545	0.723	-0.263***	0.115	0.223***	1						
Teacher Charisma	3.567	0.693	0.095	-0.003	-0.011	0.029	1					
Teacher personality	3.860	0.812	-0.088	-0.119	-0.065	-0.011	0.296***	1				
Teacher behavior	3.656	0.746	0.113	-0.146*	-0.192**	-0.193**	0.363***	0.255***	1			

(Continued)

Table 4.6 (Continued): Pearson Correlation

	Average	Standard	Gender	Age	Working	Salary	Teacher	Teacher	Teacher	Teacher	Motivating	Completion
		deviation			hours		Charisma	personality	Behavior	Competence	students	rate
Teacher Competence	3.626	0.711	0.135*	-0.011	-0.035	-0.017	0.324***	0.260***	0.363***	1		
Motivating students	3.755	0.682	-0.048	0.047	-0.126	0.067	0.385***	0.344***	0.449***	0.382***	1	
Completion rate	3.617	0.705	0.068	-0.061	-0.184**	0.025	0.505***	0.389***	0.483***	0.426***	0.598***	1

\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

The correlation coefficients were 0.385, 0.344, 0.449, 0.382 and were all greater than 0. This means that there is a positive relationship between student motivation and the four items of teacher charisma, teacher personality, and teacher behavior and teacher competence.

The correlation coefficients were 0.598, 0.505, 0.389, 0.483, 0.426 and were all greater than 0. This means that there was a positive relationship between completion rate and the five items of motivation, charisma, personality, behavior and competence. There was a positive relationship between the items of motivation, teacher charisma, teacher personality, and teacher behavior and teacher competence.

#### 4.5 Regression Analysis

##### 4.5.1 Analysis of the impact of teacher characteristics on motivating students

As can be seen from Table 4.7, there were two models involved in this stratified regression analysis. The independent variables in Model 1 were gender, age, hours worked, and salary, while Model 2 added teacher charisma, teacher personality, teacher behavior, and teacher competence to Model 1.

Table 4.7: The Impact of Teacher Characteristics on Motivating Students

	Motivating students	
	Model 1	Model 2
Gender	-0.058	-0.092
Age	0.250**	0.279***
Working hours	-0.331***	-0.290***
Salary	0.097	0.134*
Teacher Charisma		0.167**
Teacher personality		0.179**

(Continued)

Table 4.7 (Continued): The Impact of Teacher Characteristics on Motivating Students

	Motivating students	
	Model 1	Model 2
Teacher behavior		0.299***
Teacher Competence		0.181**
$R^2$	0.063	0.392
Adjustment $R^2$	0.046	0.371
F-value	3.850**	18.237 ****
$\Delta R^2$		0.330
$\Delta F$ value		30.640***

Model 1 summarises the analysis by showing that age has a significant positive effect on motivation ( $\beta=0.250$ ,  $p<0.01$ ). There was also a significant negative effect of hours worked on student motivation ( $\beta=-0.331$ ,  $p<0.001$ ). However, gender and salary did not have an effect on student motivation.

Model 2 showed a significant change in F-values ( $p<0.05$ ) when teacher charisma, teacher personality, teacher behavior and teacher competence were added to model 1, implying that the addition of teacher charisma, teacher personality, teacher behavior and teacher competence had an explanatory effect on the model. In addition, the R-squared value increased from 0.063 to 0.392, implying that teacher charisma, teacher personality, teacher behavior, and teacher competence could explain 33.0% of the strength of student motivation. Specifically, teacher charisma had a significant positive effect on student motivation ( $\beta = 0.167$ ,  $p < 0.01$ ). Teacher personality had a significant positive effect on student motivation ( $\beta=0.179$ ,  $p<0.01$ ). Teacher behavior had a significant positive effect on student motivation ( $\beta=0.299$ ,  $p<0.001$ ). Teacher competence had a significant positive effect on student motivation ( $\beta=0.181$ ,  $p<0.01$ ).

#### 4.5.2 Analysis of the impact of teacher characteristics on completion rates

As can be seen from Table 4.8, there were two models involved in this stratified regression analysis. The independent variables in model 1 are gender, age, hours worked and salary. Model 2 adds teacher charisma, teacher personality, teacher behavior and teacher competence to model 1, and the dependent variables in the model are: completion rate

Table 4.8: The Impact of Teacher Characteristics on Completion Rates

	Completion Rate	
	Model 1	Model 2
Gender	0.045	0.001
Age	0.125	0.153*
Working hours	-0.277**	-0.240***
Salary	0.085	0.109*
Teacher Charisma		0.288***
Teacher personality		0.194***
Teacher behavior		0.260***
Teacher Competence		0.183**
$R^2$	0.049	0.462
Adjustment $R^2$	0.032	0.443
F-value	2.945*	24.275***
$\Delta R^2$		0.413
$\Delta F$ value		43.433***

Model 1 summaries the analysis by showing that there is a significant negative relationship between hours worked and completion rate ( $\beta = -0.277$ ,  $p < 0.01$ ). However, gender, age and salary did not have an effect on completion rate.

Model 2 showed a significant change in F-value ( $p < 0.05$ ) after adding teacher charisma, teacher personality, teacher behavior and teacher competence to model 1, implying that the addition of teacher charisma, teacher personality, teacher behavior and teacher competence had an explanatory effect on the model. In addition, the R-squared value increased from 0.049 to 0.462, implying that teacher charisma, teacher personality, teacher behavior, and teacher ability could have a 41.3% explanatory strength on the completion rate. Specifically, teacher charisma had a significant positive effect on completion rates ( $\beta = 0.288$ ,  $p < 0.001$ ). Teacher personality had a significant positive effect on completion rates ( $\beta = 0.194$ ,  $p < 0.001$ ). Teacher behavior had a significant positive effect on completion rates ( $\beta = 0.260$ ,  $p < 0.001$ ). There was a significant positive relationship between teacher competence and completion rate ( $\beta = 0.183$ ,  $p < 0.01$ ).

#### 4.5.3 Analysis of the impact of motivating students on completion rates

As can be seen from Table 4.9, there were 2 models involved in this stratified regression analysis. The independent variables in model 1 are gender, age, hours worked, and salary. Model 2 adds motivating students to model 1 and the dependent variables in the model are: completion rate

Table 4.9: The Impact of Motivating Students on Completion Rates

	Completion rate	
	Model 1	Model 2
Gender	0.045	0.080
Age	0.125	-0.022
Working hours	-0.277**	-0.082
Salary	0.085	0.027
Motivating students		0.591***

(Continued)

Table 4.9 (Continued): The Impact of Motivating Students on Completion Rates

	Completion rate	
	Model 1	Model 2
$R^2$	0.049	0.376
Adjustment $R^2$	0.032	0.362
F-value	2.945*	27.602***
$\Delta R^2$		0.327
$\Delta F$ value		120.129***

Model 1 summarises the analysis by showing that there is a significant negative relationship between hours worked and completion rate ( $\beta = -0.277$ ,  $p < 0.01$ ). However, gender, age and salary did not have an effect on completion rate.

Model 2 showed a significant change in F-value ( $p < 0.05$ ) when motivation was added to model 1, implying that the inclusion of motivation was significant in explaining the model. In addition, the R-squared value increased from 0.049 to 0.376, implying that motivating student motivation could have an explanatory strength of 32.7% on the completion rate. Specifically, motivating student motivation would have a significant positive relationship on completion rate ( $\beta = 0.591$ ,  $p < 0.001$ ).

#### 4.6 Intermediary Analysis

To test whether motivating students plays a mediating role in the effect of teacher characteristics on completion rates, the following mediating effects test was conducted to test the hypothesis.

According to Wen, Chang, Hau, & Lui (2004), the steps of the mediating effect test are as follows.

- 1) The independent variable has an effect on the dependent variable
- 2) The independent variable has an effect on the mediating variable



3) With the addition of mediating variables, the independent variable becomes unaffected by the dependent variable (fully mediated) and the independent variable still has an effect on the dependent variable, but the coefficient of influence becomes smaller (partially mediated)

Table 4.10: Hierarchical Analysis of Mediating Effects

	Completion rate	Motivating students	Completion rate
	Model 1	Model 2	Model 3
Gender	0.001	-0.092	0.030
Age	0.153*	0.279***	0.067
Working hours	-0.240***	-0.290***	-0.150*
Salary	0.109*	0.134*	0.067
Teacher Charisma	0.288***	0.167**	0.236***
Teacher personality	0.194***	0.179**	0.138**
Teacher behavior	0.260***	0.299***	0.167**
Teacher Competence	0.183**	0.181**	0.126*
Motivating students			0.311***
$R^2$	0.462	0.392	0.521
Adjustment $R^2$	0.443	0.371	0.502
F-value	24.275***	18.237 ****	27.202***

Model 3, which adds motivating student motivation to model 1, increases the R-squared value from 0.462 to 0.521, implying that motivating student motivation can have a 5.9% explanatory strength on the completion rate. Specifically, the regression coefficient value for motivating students' motivation was 0.322 and showed significance ( $p < 0.001$ ), implying that motivating students' motivation would have a

significant positive relationship on the completion rate. Indicating that the third step of the mediation analysis was met, the effects of teacher charisma decreased from 0.288 to 0.236 ( $p < 0.001$ ), teacher personality decreased from 0.194 to 0.138 ( $p < 0.01$ ), teacher behavior decreased from 0.260 to 0.167 ( $p < 0.01$ ) and teacher ability decreased from 0.183 to 0.126 ( $p < 0.05$ ), all of which were significant, indicating a partially mediated effect.

To further test whether motivating students' motivation played a mediating role in teacher characteristics on completion rates, this position was tested for significant mediating effects using the Bootstrap Mediating Effect Test, using Bootstrap ML, with a repeat sampling of 5000 times, to test the mediating effect results, as shown in Table 4.11.

Table 4.11: BOOTSTRAP Mediating Effects Test

Item	Direct effects	Total effect	Intermediary effect	Standard error	95% confidence interval	Test conclusion
Teacher charisma => motivating students => completion rate	0.236***	0.288***	0.052	0.022	0.013 ~ 0.097	Some agents
Teacher personality => Motivating students => Completion rate	0.138**	0.194***	0.056	0.024	0.016 ~ 0.109	Some agents
Teacher behavior => motivating students => completion rate	0.167**	0.260***	0.093	0.030	0.042 ~ 0.160	Some agents

(Continued)

Table 4.11(Continued): BOOTSTRAP Mediating Effects Test

Item	Direct effects	Total effect	Intermediary effect	Standard error	95% confidence interval	Test conclusion
Teacher competence => Motivating students => Completion rate	0.126*	0.183**	0.056	0.023	0.017 ~ 0.105	Some agents

Table 4.11 shows that the estimated value of the mediated path teacher charisma => motivate students => completion rate is 0.052 with 95% confidence interval (0.013,0.097), which does not contain 0 and is significant, indicating a partial mediation; the estimated value of teacher personality => motivate students => completion rate is 0.056 with 95% confidence interval (0.016,0.109), which does not contain 0 and is significant, indicating a partial mediation; the estimated value of teacher behavior => motivate students => completion rate is 0.093 with 95% confidence interval (0.016,0.109), does not contain 0, which is significant, indicating a partial mediation; the estimate of teacher behavior => motivation => completion rate is 0.093, 95% confidence interval (0.042,0.160), does not contain 0, which is significant, indicating a partial mediation; the estimate of teacher ability => motivation => completion rate is 0.093, 95% confidence interval (0.042,0.160) The estimate of completion rate was 0.056, 95% confidence interval (0.017,0.105), not including 0, which reached significance, indicating a partial mediation; consistent with the findings of the cascade regression, indicating that the mediation holds.

## **CHAPTER 5**

### **CONCLUSION**

This chapter is structured as follows:

5.1 Interpretation of the Conclusions and Results

5.2 Research Implications

5.3 Limitations of the Study

5.4 Suggestions for the Next Step of the Study

#### **5.1 Interpretation of the Conclusions and Results**

Three models were involved in this stratified regression analysis through ANOVA, correlation regression analysis, and mediation analysis. Four of the significant variables were used as independent variables motivating MOOC learners and influencing completion rates. The presence of mediating variables indicated that motivating students played a mediating role in teacher characteristics on completion rates.

5.1.1 The dependent variable of the model was: motivating students

5.1.1.1 Teacher charisma ( $\beta=0.167$ )

This implies that teacher charisma exerts a significant positive influence relationship on motivating students, a finding that is consistent with previous research<sup>12</sup> Characteristics of an Effective Teacher (Walker, 2008) which identified twelve characteristics of effective teachers that student need in order to perform appropriately and receive the information they receive. These characteristics are: preparedness, positive attitude, high expectations, creativity, fairness, and personal contact, fostering a sense of belonging, acceptance of mistakes, sense of humor, respect for students, a tolerant attitude and empathy.

5.1.1.2 Teacher personality ( $\beta=0.179$ )

This implies a significant positive relationship between teacher

personality and motivation, a finding that is consistent with previous research Researching teacher education in changing times: Politics and paradigms. The Relationship between students (Cochran-Smith & Fries, 2005) the original study (prior to the 1950s) used surveys to identify teacher characteristics and traits (including their personality and character) that Koutsoulis (Scrivner, 2009) found that students listed the qualities of effective teachers, features such as: friendliness, forgiveness, respect, compassion, fairness, attitude comprehension.

#### 5.1.1.3 Teacher behavior ( $\beta = 0.299$ )

This implies a significant positive relationship between teacher behavior and student motivation, a finding that is consistent with previous research Humor and communication in instructional Contexts: Goal-oriented communication. Is humor an appreciated Perception of professors' teaching styles and use of humor. Assessing students' perceptions of inappropriate and appropriate teacher humor. Appropriate and inappropriate uses of humor by teachers are consistent While teachers may employ a variety of humorous strategies (Booth-Butterfield & Wanzer, 2010), most teachers use funny stories, amusing comments, jokes and professional humour (Torok et al., 2004). Teachers may wish to combine these humour approaches in appropriate ways (Frymier, Wanzer, & Wojtaszczyk, 2008; Wanzer, Frymier, Wojtaszczyk, & Smith, 2006).

#### 5.1.1.4 Teacher competence ( $\beta = 0.181$ )

This implies a significant positive relationship of teacher competence on motivating students, a finding that is consistent with previous research on E-learning readiness among faculty members of medical sciences universities and provide strategies to improve it. Master online teacher competencies. Garrison and Cleveland-Innes (2005). Facilitating Cognitive Presence in Online Learning: Interaction is not enough. MOOCs and the scaling of postsecondary education. What drives a successful MOOC? An empirical examination of criteria to assure design quality of MOOCs are consistent (Houshmandi, Rezaei, Hatami, & Molaei, 2019)

Highly qualified teachers are seen as a key element of effective teaching and learning systems. According to (Varvel, 2007), a competent person is an individual who applies his or her knowledge, skills, attitudes and abilities appropriately to the tasks of a particular field (digital distance education) according to the needs of the times. Teacher competence has a significant impact on learner interaction and engagement in online learning (Garrison, & Cleveland-Innes, 2005) as well as on the quality of deep learning and learning outcomes (Keyek-Franssen, 2017; Yousef et al., 2014) have a significant impact.

#### 5.1.2 The dependent variables of the model are: completion rate

##### 5.1.2.1 Teacher charisma ( $\beta=0.288$ )

This implies that faculty charisma exerts a significant positive influence relationship on completion rates Web-based student evaluations of professors: the relations between perceived quality, easiness and sexiness. influence of student perceived Professors' "Hotness" on expertise, motivation, learning outcomes, and course satisfaction. Humor as an instructional defibrillator: Evidence-based techniques in teaching and assessment. The use of humor as a teaching the use of humor as a teaching tool in the college classroom. Humor in pedagogy: how ha-ha can lead to aha! consistent with (Felton, Mitchell, & Stinson, 2004; Liu, Hu, & Furutan, 2013) past research has shown that students rate courses with attractive professors higher and express higher levels of course satisfaction. (e.g., Berk, 2002; Garner, 2006) Proponents of the use of humor believe it can have a positive impact on students, retention of material, and the learning environment.

##### 5.1.2.2 Teacher personality ( $\beta = 0.194$ )

This implies that teacher personality can have a significant positive relationship on completion rates, students' perception of teachers personality and its effects on student's academic performance: A survey on the business management teachers in the cape coast north metropolis is consistent with (Adenyo et al., 2019) research showing that teachers associated with extraversion, responsibility and

openness have an academic performance of high school students.

#### 5.1.2.3 Teacher behavior ( $\beta = 0.260$ )

This implies that teacher behavior has a significant positive relationship on completion rates, Beautiful faces have variable reward value: fMRI and behavioral evidence are consistent (Aharon et al., 2001; Brazhenskaya, 2016 as cited in Astapchuk et al. 2021) Forming the idea that a teacher is a smart, creative and interesting person.

#### 5.1.2.4 Teacher competence ( $\beta = 0.183$ )

This implies a significant positive relationship between teacher competence and completion rates, the challenges to connectivity learning on open online networks: Learning experiences during a massive open online course In line with this (Kop, 2011), competent teachers are one of the five key elements of a successful MOOC. Other elements include learners, topics, courses and content.

#### 5.1.2.5 Motivating students ( $\beta = 0.591$ )

This implies a significant positive relationship between motivating students and completion rates, what beautiful is good because what is beautiful is desired: physical attractiveness stereotyping as projection of 56 interpersonal goals. A tale of two MOOCs: How student motivation and participation predict learning outcomes in different MOOCs. Predictors of learner satisfaction and transfer of learning in a corporate online education program. Engaging learners in online learning environments. Learner retention in MOOC environments: Analyzing the role of motivation, self-efficacy and perceived effectiveness (Sujatha & Kavitha, 2018) The model advanced by Lemay et al. (2010) and colleagues suggests that positive attributions based on physical attractiveness occur primarily due to Within the context of social learning, high attractive models should be expected to Thus using SDT to conceptualize learner behaviors is useful, and motivation has been found to be a factor in students' learning outcomes and course completion (Brooker et al., 2018; Gunawardena et al. 2010; Lim 2004; Sujatha & Kavitha 2018).

## **5.2 Research Implications**

ATFB (attractive teacher characteristics) instructional design for adult higher education must focus on four positive characteristics variables such as teacher charisma, teacher personality, teacher behavior, and teacher competence in order for more MOOC learners to choose adult higher education at Baise University. Also, this study will serve as a basis for future research on the use of engaging teacher characteristics to motivate students in an open learning environment using an instructional design approach.

## **5.3 Limitations of the Study**

5.3.1 The factors that influence MOOC learners' motivation and completion rates are multifaceted, and although researchers have sifted through literature reviews, theoretical analyses and in-depth interviews to identify the influencing factors, some are inevitably missed.

5.3.2 The findings of this paper are limited to Baise University, and there are limitations in replicating the findings in other universities.

## **5.4 Suggestions for the Next Step of the Study**

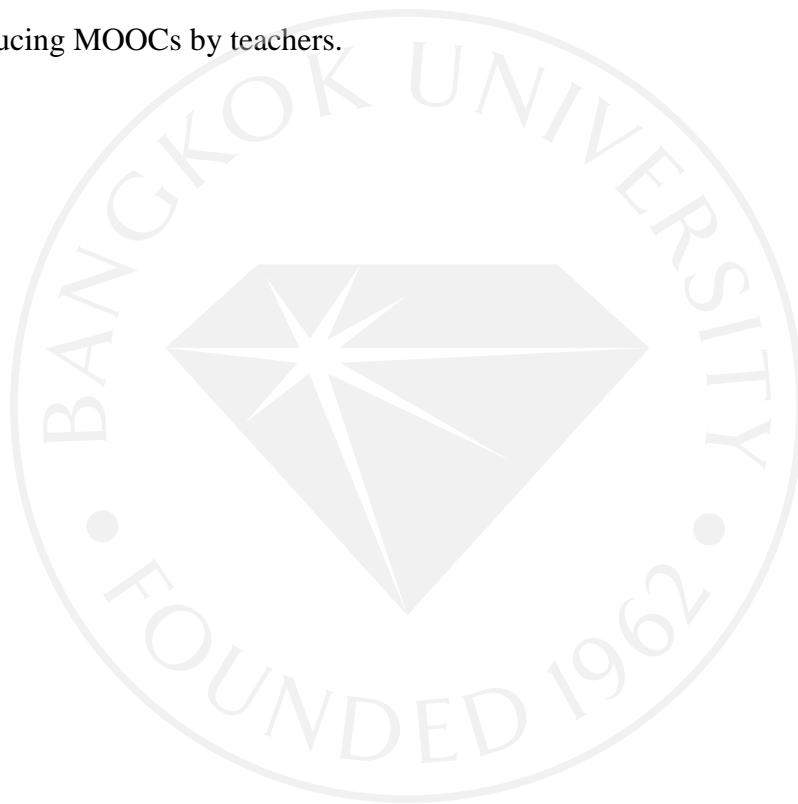
The MOOC for adult higher education at Baise University requires students to pay for identification when taking the course. When learners are satisfied with the programme and the instructional design, this helps teachers or instructional managers to better understand the behavior of MOOC learners and improve the instructional design from the perspective of MOOC learners to meet more needs of MOOC learners to a certain extent. Therefore, the research content of this paper has implications for the innovative MOOC learning environment, especially for Baise University. On this basis, the researcher proposes the following aspects for further exploration.



1) In future research, we can explore in greater depth and comprehensively the factors influencing learners' sense of experience on different MOOC platforms from different perspectives.

2) In future research, we could investigate the factors influencing different levels of student experience of use.

3) In future research, we can explore the time influences on teachers' MOOC course development inputs, detailing the psychological changes in the process of producing MOOCs by teachers.



## BIBLIOGRAPHY

- Aharon, I., Etcoff, N., Ariely, D., Chabris, C.F., O'Connor, E., & Breiter, H.C. (2001). Beautiful faces have variable reward value: fMRI and behavioral evidence. *Neuron*, 32(3), 537-551.
- Al-Hunaiyyan, A., Alhajri, R. A., & Al-Sharhan, S. (2016). Perceptions and Challenges of Mobile Learning in Kuwait. *Journal of King Saud University-Computer and Information Sciences*, 30, 279-289.
- Albelbisi, A. N. (2019). The role of quality factors in supporting self-regulated learning (SRL) skills in MOOC environments. *Education and Information Technologies*, 24(2), 1681-1698.
- Allen, M., Bourhis, J., Burrell, N., & Mabry, E. (2002). Comparing student satisfaction with distance education to traditional classrooms in higher education: A meta-analysis. *American Journal of Distance Education*, 16, 83-97.
- Alraimi, K. M., Zo, H., & Ciganek, A. P. (2015). Understanding the MOOCs continuance: The role of openness and reputation. *Computers & Education*, 80, 28-38.
- Astapchuk, S., Barun, A., Vayavodzina, S., Dauhiala, N., Dauhiala, D., & Zhukava, T. (2021). *Humour as a professionally significant competence of a teacher*. Retrieved from [https://www.shs-conferences.org/articles/shsconf/abs/2021/08/shsconf\\_teduvis2020\\_01019/shsconf\\_teduvis2020\\_01019.html](https://www.shs-conferences.org/articles/shsconf/abs/2021/08/shsconf_teduvis2020_01019/shsconf_teduvis2020_01019.html).
- Bakki, A., Oubahssi, L., George, S., & Cherkaoui, C. E. (2020). A model and tool to support pedagogical scenario building for connectivist MOOC. *Technology, Knowledge and Learning*, 25, 899-927.
- Berk, R. A. (2002). *Humor as an instructional defibrillator: Evidence-based techniques in teaching and assessment*. Sterling, VA: Stylus.

- Booth-Butterfield, M., & Wanzer, M. B. (2010). Humor and communication in instructional Contexts: Goal-oriented communication. In D. L. Fassett & J. T. Warren (Eds.), *The Sage handbook of communication and instruction* (pp. 221-239). Los Angeles: Sage.
- Bozer, G., Sarros, J., & Santora, J. (2014). Academic background and credibility in executive coaching effectiveness. *Personnel Review*, 43(6), 881–897.
- Bransford, J., Darling-Hammond, L., & LePage, P. (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco: Jossey-Bass.
- Brooker, A., Corrin, L., De Barba, P., Lodge, J., & Kennedy, G. (2018). A tale of two MOOCs: How student motivation and participation predict learning outcomes in different MOOCs. *Australasian Journal of Educational Technology*, 34(1), 73-87.
- Cai, L., Hughes, M., & Yin, M. (2009). The relationship between resource acquisition methods and firm performance in Chinese new ventures: The intermediate effect of learning capability. *Journal of Small Business Management*, 52(3), 356-389.
- Cai, X., Shen, W., Li, L. T., Ge Y., Gao, J., & Zheng, Y. (2017). *Research on the teaching model of database foundation course based on micro-lectures*. Retrieved from <http://dpi-journals.com/index.php/dtssehs/article/view/12823>.
- Castaño, C., Maiz, I., & Garay, U. (2015). Design, motivation and performance in a cooperative MOOC course. *Comunicar*, 44(22), 19-26.
- Chaimin, C. (2019). MOOC: Lifelong learning in the 21<sup>st</sup> century. *Journal of Humanities and Social Sciences*, 1(1), 46-70.
- Chen, X. (2003). Teacher professionalism: A watershed in enhancing the professional taste of teachers. *Educational Theory and Practice*, (02) 49-53.
- Chen, Y., & Tian, A. (2014). *Introduction to catechism and flipped classroom*. Shanghai: East China Normal University.

- Cheng, J. (2021). *A review of MOOCs research abroad (2009-2020)*. Wuhan: Wuhan Institute of Technology.
- Cochran-Smith, M., & Fries, K. (2005). Researching teacher education in changing times: Politics and paradigms. In M. Cochran-Smith, & K. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 69-107). Washington, DC: American Educational Research Association.
- Cook, S. W., Yip, T. K., & Goldin-Meadow, S. (2010). Gesturing makes memories that last. *Journal of Memory and Language*, 63(4), 465–475.
- Corcoran, R. P., & O'Flaherty, J. (2016). Personality development during teacher preparation. *Frontiers in Psychology*, 7(1677), 1-10.
- Cross, S. (2013). *Evaluation of the OLDS MOOC curriculum design course: participant perspectives, expectations and experiences* (Project research). UK: The Open University.
- Davidson, J. E., & Sternberg, R. J. (2003). *The psychology of problem solving*. Cambridge: Cambridge University.
- Dembo, M. H., & Seli, H. (2020). *Motivation and learning strategies for college success: A focus on self-regulated learning* (6<sup>th</sup> ed.). Abingdon-on-Thames: Routledge.
- Dehghani, S., Sheikhi Fini, A. A., Zeinalipour, H., & Rezaei, E. (2020). The competencies expected of instructors in massive open online courses (MOOCs). *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 11(2), 69-83.
- DeVellis, R. F. (1991). *Scale development: Theory and applications*. Newbury Park, CA: Sage.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5-22.

- Dick, W., Carey, L., & Carey, J. O. (2015). *The systematic design of instruction* (8<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson.
- Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14(1), 4–58.
- Honu, B., Effah, S., Adenyo, E. K., & Menlah, E. (2019). *Students' perception of teachers personality and it's effects on student's academic performance: A survey on SHS business management teachers in the Cape Coast North metropolis*. Retrieved from <https://www.researchgate.net/publication/351093585>.
- Farrin, P. (2009). *The joy of teaching*. China: East China Normal University.
- Felton, J., Mitchell, J., & Stinson, M. (2004). Web-based student evaluations of professors: The relations between perceived quality, easiness and sexiness. *Assessment & Evaluation in Higher Education*, 29(1), 91-108.
- Frymier, A. B., Wanzer, M. B., & Wojtaszczyk, A. M. (2008). Assessing students' perceptions of inappropriate and appropriate teacher humor. *Communication Education*, 57, 266-288.
- Garner, R. L. (2006). Humor in pedagogy: How ha-ha can lead to aha!. *College Teaching*, 54(1), 177-180.
- Garrison, D. R., & Cleveland-Innes, M. (2005). Facilitating cognitive presence in online learning: Interaction is not enough. *American Journal of Distance Education*, 19(3), 133-148.
- Giasiranis, S., & Sofos, L. (2020). The influence of instructional design and instructional material on learners' motivation and completion rates of a MOOC course. *Open Journal of Social Sciences*, 8(11), 190-206.

- Goncz, L. (2017). Teacher personality: a review of psychological research and guidelines for a more comprehensive theory in educational psychology. *Open Review of Educational Research*, 4(1), 75-95.
- Gunawardena, C. N., Linder-VanBerschot, J. A., LaPointe, D. K., & Rao, L. (2010). Predictors of learner satisfaction and transfer of learning in a corporate online education program. *American Journal of Distance Education*, 24(4), 207-226.
- Guo, P. J., Kim, J., & Rubin, R. (2014). *How video production affects student engagement: An empirical study of MOOC videos*. Retrieved from <http://up.csail.mit.edu/other-pubs/las2014-pguo-engagement.pdf>.
- Guo, D., Wang, L., & Li, L. (1999). ARCS motivational design model. Capital Normal University, No. 5, 1999.
- Gütl, C., Rizzardini, R. H., Chang, V., & Morales, M. (2014). Attrition in MOOC: Lessons learned from drop-out students. In *International workshop on learning technology for education in cloud* (pp. 37-48). Cham: Springer.
- Hao, X. (2018). *Research on the design and key technology of online teaching platform for adult higher education*. Hebei: Shijiazhuang University of Railways.
- Haozheng, Q. (2006). *Quantitative research and statistical analysis: An analysis of data analysis examples in SPSS Chinese Windows version*. Taipei: Wunan.
- He, Q. (1995). Aesthetics of education. *Chongqing Publishing House*, 8, 22-23.
- Hew, K. F. (2016). Promoting engagement in online courses: What strategies can we learn from three highly rated MOOCs: Engagement: Lessons from MOOCs. *British Journal of Educational Technology*, 47(2), 320-341.
- Hew, K. F., & Cheung, W. S. (2014). Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. *Educational Research Review*, 12, 45-58.

- Hone, K. S., & El Said, G. R. (2016). Exploring the factors affecting MOOC Retention: A survey study. *Computers & Education*, 98, 157-168.
- Hostetter, A. B. (2011). When do gestures communicate? A meta-analysis. *Psychological Bulletin*, 137(2), 297–315.
- Houshmandi, S., Rezaei, E., Hatami, J., & Molaei, B. (2019). E-learning readiness among faculty members of medical sciences universities and provide strategies to improve it. *Research and Development in Medical Education*, 8(2), 105-112.
- Hoy, M. B. (2014). MOOCs 101: An introduction to massive open online courses. *Medical Reference Services Quarterly*, 33(1), 85-91.
- Jiang, Q., Zhao, W., & Li, S. (2016). An empirical study on the effective specification of design quality in the context of MOOC low completion rate phenomenon. *Electrochemical Education Research*, (1), 51-57.
- Jordan, K. (2013). *MOOC completion rates: The data*. Retrieved from <http://www.katyjordan.com/MOOCproject.html>.
- Jordan, K. (2014). Initial trends in enrolment and completion of massive open online courses. *The International Review of Research in Open and Distributed Learning*, 15(1), 133-159.
- Jowett, S., Kanakoglou, K., & Passmore, J. (2012). The application of the 3+1Cs relationship model in executive coaching. *Consulting Psychology Journal: Practice and Research*, 64(3), 183–197.
- Karnouskos, S., & Holmlund, M. (2014). *Impact of massive open online courses (MOOCs) on employee competencies and innovation*. Blekinge: Institute of Technology.
- Keller, J. M. (1983). *Motivational design of instruction instructional-design theories and models: An overview of their current status*. Hillsdale, NJ: Lawrence Erlbaum Associates.

- Keller, J. M. (1987). Development and use of the ARCS model of instructional design. *Journal of Instructional Development*, 10(3), 2-10.
- Keller, J. M. (2008). An integrative theory of motivation, volition, and performance. *Technology, Instruction, Cognition & Learning*, 6(2), 79-104.
- Keller, J. M. (2010). *Motivational design for learning and performance: The ARCS model approach*. New York: Springer.
- Kellogg, S., Booth, S., & Oliver, K. (2014). A social network perspective on peer supported learning in MOOCs for educators. *International Review of Research in Open and Distributed Learning*, 15(5), 263-289.
- Keyek-Franssen, D. (2017). *MOOCs and the scaling of postsecondary education*. Retrieved From [https://evollution.com/revenue-streams/distance\\_online\\_learning/MOOCs-andthescaling-of-postsecondary-education/](https://evollution.com/revenue-streams/distance_online_learning/MOOCs-andthescaling-of-postsecondary-education/).
- Khalil, H., & Ebner, M. (2013). How satisfied are you with your MOOC?" A research study on interaction in huge online courses. In *EdMedia+ innovate learning* (pp. 830-839). Victoria: Association for the Advancement of Computing in Education (AACE).
- Kizilcec, R. F., Piech, C., & Schneider, E. (2013). Deconstructing disengagement: Analyzing learner subpopulations in massive open online courses. In *3<sup>rd</sup> International Conference on Learning Analytics and Knowledge, LAK* (pp. 170-179). New York: Association of Computing Machinery.
- Kop, R. (2011). The challenges to connectivist learning on open online networks: Learning experiences during a massive open online course. *Review of Research in Open and Distributed Learning*, 12(3), 19-38.
- Lei, S. A. (2010). Intrinsic and extrinsic motivation: Evaluating benefits and drawbacks from college instructors' perspectives. *Journal of Instructional Psychology*, 37(2), 153-160.



- Lemay, E. R., Clark, M. S., & Greenberg, A. (2010). What is beautiful is good because what is beautiful is desired: Physical attractiveness stereotyping as projection of 56 interpersonal goals. *Personality and Social Psychology Bulletin*, 36(3), 339-353.
- Li, K., & Moore, D. R. (2018). Motivating Students in massive open online courses (MOOCs) using the attention, relevance, confidence, satisfaction (ARCS) model. *International Journal of Instruction*, 13(1), 831-844.
- Li, X. (2006). Analysis of the factors constituting teachers' charisma. *Modern Skills Development*, 8, 8-9.
- Li, Z. (2020). *Explorative analysis of BU library redesign to become a creative space: From BU international students' point of view*. Unpublished master's thesis, Bangkok University, Thailand.
- Lim, C. P. (2004). Engaging learners in online learning environments. *TechTrends*, 48(4), 16-23.
- Liu, J., Hu, J., & Furutan, O. (2013). The influence of student perceived Professors' "Hotness" on expertise, motivation, learning outcomes, and course satisfaction. *Journal of Education for Business*, 88(2), 94-100.
- Liu, L. F. (2006). An introduction to the language art of Yi Shi. *Journal of Huazhong Normal University (Humanities and Social Sciences Edition)*, (S1), 92-94.
- Liu, M., Zha, S., & He, W. (2019). Digital transformation challenges: A case study regarding the MOOC Development and operations at higher education institutions in China. *TechTrends*, 63(2), 621-630.
- Liu, S., Keeley, J., & Buskist, W. (2015). Chinese college students' perceptions of characteristics of excellent teachers. *Teaching of Psychology*, 42(1), 83-86.
- Liu, Y. (2015). *Research on the design and application of mobile learning app for college English vocabulary based on ARCS model*. Changchun: Northeast Normal University.

- Liyanagunawardena, T. R., Adams, A. A., & Williams, S. A. (2013). MOOCs: A systematic study of the published literature 2008-2012. *The International Review of Research in Open and Distributed Learning*, 14(3), 202-227.
- Lu, J. (2006). *Jilin province public logistics information platform system design and key technology research*. Unpublished master's thesis, Jilin University, Jilin.
- Lukman, K. M., Uchiyama, Y., Quevedo, J. M., D., & Kohsaka, R. (2020). Local awareness as an instrument for management and conservation of seagrass ecosystem: Case of Berau Regency, Indonesia. *Ocean & Coastal Management*, 203(11), 105451.
- Luo, J. (2001). *Charm quotient: The art of creating a successful life*. Beijing: City.
- Lupascu, A. R., Pânisoară, G., & Panisoara, I. O. (2014). Characteristics of Effective Teacher. *Procedia - Social and Behavioral Sciences*, 127, 534-538.
- Martens, R. L., Gulikers, J., & Bastiaens, T. (2004). The impact of intrinsic motivation on e-learning in authentic computer tasks. *Journal of Computer Assisted Learning*, 20(5), 368-376.
- Mayer, R. E. (2014). Cognitive theory of multimedia learning. In R. E. Mayer (Ed.), *The Cambridge handbook of multimedia learning* (pp. 43-71). Cambridge: Cambridge University.
- Merrill, M. D., & Gilbert, C. G. (2008). Effective peer interaction in a problem-centered instructional strategy. *Distance Education*, (2), 199-207.

- Ministry of Education of the People's Republic of China. (2020). *Guidance from the office of the leading group for responding to the novel Coronavirus infection pneumonia epidemic on the organization and management of online teaching in general higher education institutions during the epidemic prevention and control period*. Retrieved from [http://www.moe.gov.cn/srcsite/A08/s7056/202002/t20200205\\_418138.html](http://www.moe.gov.cn/srcsite/A08/s7056/202002/t20200205_418138.html)
- Nawrot, I., & Doucet, A. (2014). Building engagement for MOOC students: Introducing support for time management on online learning platforms. In *Proceedings of the 23<sup>rd</sup> International conference on World Wide Web* (pp. 1077-1082). Seoul Korea: ACM.
- Online education semi-annual report*. (2019). Retrieved from <https://www.questmobile.com.cn/research/reporttrew/63>.
- Qin, L. (2019). *Research on the application of ARCS motivation model in high school chemistry teaching*. Ningxia: Ningxia University.
- Qiu, C. (1997). *Aesthetic education in university*. Beijing: Higher Education.
- Sankaran, S. R., & Bui, T. (2001). Impact of learning strategies and motivation on performance: a study in web-based instruction. *Journal of Instructional Psychology*, 28(3), 191-198.
- Patru, M., & Balaji, V. (2016). *Making sense of MOOCS: a guide for policy makers in developing countries*. Paris: United Nations Educational, Scientific and Cultural Organization.
- Pusumpan, P. (2019). Developing brand identity of Thai MOOC project in promoting life-long learning. *International Journal of Innovative Science and Research Technology*, 4(9), 33-36.
- Riniolo, T. C., Johnson, K. C., Sherman, T. R., & Misso, J. A. (2006). Hot or not: Do professors perceived as physically attractive receive higher student evaluations?. *The Journal of General Psychology*, 133(1), 19-35.

- Scrivner, C. M. (2009). *The relationship between student achievement and teacher attitude: A Correlational Study*. Unpublished doctoral dissertation, Northcentral University, Prescott Valley, Arizona.
- Semenova, T. (2020). The role of learners' motivation in MOOC completion. *Open Learning: The Journal of Open, Distance and e-Learning*, 37(3), 1-15.
- Shah, D. (2019). *Year of MOOC-based degrees: A review of MOOC stats and trends in 2018*. Retrieved from <https://www.classcentral.com/report/moocs-stats-and-trends-2018/>.
- Shah, V., Murthy, S., Warriem, J., Sahasrabudhe, S., Banerjee, G., & Iyer, S. (2022). Learner-centric MOOC model: A pedagogical design model towards active learner participation and higher completion rates. *Educational Technology Research and Development*, 70, 263–288.
- Shapiro, H. B., Lee, C. H., Roth, N. E. W., Li, K., Cetinkaya-Rundel, M., & Canelas, D. A. (2017). Understanding the massive open online course (MOOC) student experience: An examination of attitudes, motivations, and barriers. *Computers & Education*, 110, 35-50.
- Shen, D. (2003). *Charming quotes from famous people*. Beijing: All City.
- Simonds, T. A., & Brock, B. L. (2014). Relationship between age, experience, and student preference for types of learning activities in online courses. *Journal of Educators Online*, 11(1), 1-9.
- Singh, V., & Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Education*, 33(4), 289-306.
- Small, R. V., & Gluck, M. (1994). The relationship of motivational conditions to effective instructional attributes: A magnitude scaling approach. *Educational Technology*, 34(8), 33-40.

- Sujatha, R., & Kavitha, D. (2018). Learner retention in MOOC environment: Analyzing the role of motivation, self-efficacy and perceived effectiveness. *International Journal of Education and Development Using Information and Communication Technology*, 14(2), 62-74.
- Sukhomlinsky. (1994). *One hundred suggestions for teachers*. Tianjin: Tianjin People's Publishing House.
- Sun, R. (2007). *Aesthetic education in university*. Suzhou: Soochow University.
- Thailand Cyber University. (2022). *Statistics for the TCU*. Retrieved from <https://www.thaicyberu.go.th/>.
- Torok, S. E., McMorris, R. F., & Lin, W. (2004). Is humor an appreciated teaching tool? Perceptions of professors' teaching styles and use of humor. *College Teaching*, 52, 14-20.
- Ucar, H., & Kumtepe, A. T. (2019). Effects of the ARCS-V-based motivational strategies on online learners' academic performance, motivation, volition, and course interest. *Journal of Computer Assisted Learning*, 36(3), 335-349.
- Varvel, V. E. (2007). *Master online teacher competencies*. Retrieved from <http://www.westga.edu/~distance/ojdla/spring101/varvel101.htm>.
- Veletsianos, G., & Shepherdson, P. (2015). Who studies MOOCs? Interdisplinary in MOOC research and its changes over time. *International Review of Research in Open and Distributed Learning*, (3), 1-17.
- Walker, R. J. (2008). *12 Characteristics of an effective teacher*. NC: Lulu.
- Wang, K., & Zhu, C. (2019). MOOC - based flipped learning in higher education; students, participation, experience and learning performance. *International Journal of Educational Technology in Higher Education*, 16(33), 33-51.
- Wang, Y., & Dong, L. (2018). An international comparative study of MOOC instructional video design principles. *China Education Informatization*, 22, 10-15.

- Wanzer, M. B., Frymier, A. B., Wojtaszczyk, A. M., & Smith, T. (2006).  
Appropriate and inappropriate uses of humor by teachers. *Communication Education, 55*, 178-196.
- Wen, Z. L., Chang, L., & Hau, K. T., & Lui, H. Y. (2004). Mediated effects testing procedures and their applications. *Journal of Psychology, 36*(5), 614-620.
- Whitmer, J., Schiorring, E., & James, P. (2014). Patterns of persistence: What engages students in a remedial English writing MOOC?. In *Proceedings of the fourth international conference on learning analytics and knowledge* (pp. 279-280). New York: ACM.
- Wu, Q. (2013). *Research on the innovation of adult college entrance examination in China*. Hubei: Huazhong Normal University.
- Xie, Li. (2007). *Research on an online learning environment based on the ARCS motivational design model*. Shanghai: East China Normal University.
- Yang, D., Piergallini, M., Howley, I., & Rose, C. (2014). Forum thread recommendation for massive open online courses. In *Proceedings of the 7<sup>th</sup> international conference on educational data mining* (pp. 257-260). London: International Educational Data Mining Society.
- Yousef, A. M. F., Chatti, M. A., Schroeder, U., & Wosnitza, M. (2014). What drives a successful MOOC? An empirical examination of criteria to assure design quality of MOOCs. In *IEEE 14<sup>th</sup> International Conference Advanced Learning Technologies* (pp. 44-48). Athens, Greece.
- Yuan, L., & Powell, S. (2013). *MOOCs and open education: Implications for higher education*. UK: University of Bolton.
- Zhang, Y. (2018). A study on factors influencing teachers' video language expression skills in large-scale open online courses. *Electrochemical Education Research, 39*(05), 33-39.

- Zhao, L. (2021). Cultivating language charm to stimulate students' interest in learning. *Henan Education*, (06), 73.
- Zhao, T. (2018). An analysis of the role of teacher charisma in medical humanities courses. *China Medical Humanities*, SZ0204.
- Zheng, Y. (2020). The teaching design and practice of flipped classroom from the perspective of ARCS model. *Modern Distance Education*, (03), 18-23.
- Zhou, C. (2009). *How foreign teachers teach*. Nanjing: Nanjing University.
- Zhou, X. (2018). The construction of "signals and systems" online laboratory classroom based on ARCS motivation model. *Heilongjiang Education*, (7), 39-41.
- Zhu, M., Berri, S., & Zhang, K. (2021). Effective instructional strategies and technology use in blended learning: A case study. *Education and Information Technologies*, 26(1), 6143-6161.
- Zhu, R. B., & Wang, R. D. (2001). *Teacher quality training for teachers in the 21<sup>st</sup> century*. Zhejiang: Zhejiang University.

**APPENDICES**



## Appendix A

### Open Interview

Objective: This paper adopts the methods of qualitative analysis and quantitative analysis to conduct exploratory analysis on the teaching design of adult higher education attraction teacher traits ATFB (Attractive Teacher Features) in Baise University, and obtain the factors that can effectively improve the learning motivation and completion rate of MOOC learners. To some extent, this will help teachers better understand the behaviors of MOOC learners, improve the teaching design from the perspective of MOOC learners, and meet the needs of MOOC learners. It will also benefit MOOC learners who want to choose Baise Adult Higher Education ATFB (Attractive Teacher Features) instructional design. The content filled in does not involve personal privacy; sincerely invite you to put forward valuable opinions, thank you.

Teacher's charm -- teacher's character -- cultivating character -- teacher's behavior -- teacher's ability -- arousing students' motive -- completion rate

1.

(1) What do you think are the ATFB (Attractive Teacher Features) in MOOC teaching (e.g., sense of humor, creativity, fun, calmness, tolerance, friendliness, well-prepared, mutual respect, encouragement/care for students)?

**Respondent 1**

Answer:

(2) Do you think ATFB (Attractive Teacher Features) get higher student evaluations?

**Respondent 1**

Answer:

2.

(1) What kind of personality do you think a teacher has that will keep you studying until the end of the course (e.g. optimistic, irritable, cold, friendly)?

**Respondent 1**

Answer:

(2) Do you agree to let me provide a good and interesting example in MOOC teaching?

**Respondent 1**

Answer:

(3) Do you agree that friendly teachers and smiles in MOOC teaching make me want to study to the end like a movie?

**Respondent 1**

Answer:

(4) Do you agree that friendly teachers and smiles in MOOC teaching make me want to play to the end like playing a game?

**Respondent 1**

Answer:

(5) Do you agree that teachers in MOOC teaching are heroes in our hearts?

**Respondent 1**

Answer:

3.

Do you agree with MOOC that train teachers to make me focus more on even boring subjects (e.g., traits of extroversion, conscientiousness and openness)?

**Respondent 1**

Answer:

4.

(1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in The Chinese film?

**Respondent 1**

Answer:

(2) Do you agree with the MOOC course, a beautiful teacher let me enthusiastically log in every course?

**Respondent 1**

Answer:

(3) Do you agree that the high common sense of MOOC enables me to enjoy learning?

**Respondent 1**

Answer:

(4) Do you think ATFB (Attractive Teacher Features) will increase interaction with learners?

**Respondent 1**

Answer:

5.

(1) What competencies do you think ATFB (Attractive Teacher Features) have (e.g., high technical level, authority, professionalism)?

**Respondent 1**

Answer:

(2) Do you think the TEACHING design of ATFB (Attractive Teacher Features) stimulates the enthusiasm of learners?

**Respondent 1**

Answer:

6.

(1) On the MOOC platform, does the enthusiastic tone of teachers keep learners' attention?

**Respondent 1**

Answer:

(2) On the MOOC platform, can teachers attract learners' attention by teaching with professional knowledge?

**Respondent 1**

Answer:

(3) On the MOOC platform, do teachers use creative and interesting topics to explain content to attract learners' attention?

**Respondent 1**

Answer:

(4) On the MOOC platform, can teachers' encouragement and care for students help learners to focus their attention?

**Respondent 1**

Answer:

(5) On the MOOC platform, does mutual respect between teachers and learners attract learners' attention?

**Respondent 1**

Answer:

7.

(1) Do learners learn what they want to learn on MOOC platform?

**Respondent 1**

Answer:

(2) On the MOOC platform, what connections do learners acquire in the learning process (for example, the connection between the knowledge acquired in work and career development)?

**Respondent 1**

Answer:

(3) On the MOOC platform, can learners learn what they want to learn after completing the learning?

**Respondent 1**

Answer:

## Appendix B

### Finding and Analysis

Teacher charm —— Teacher personality —— develop character —— teacher  
behavior —— teacher ability —— cause student motivation —— completion rate

	Age	Sex	Occupation
Respondent 1	35	male	student
Respondent 2	24	male	student
Respondent 3	26	female	student
Respondent 4	30	male	student
Respondent 5	32	female	student
Respondent 6	28	female	student
Respondent 7	31	female	student
Respondent 8	24	male	student
Respondent 9	22	female	student
Respondent104	28	male	student

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
<p>1. (1) What do you think are ATFB (Attractive Teacher Features) in MOOC teaching (e. g.: sense of humor, creativity, fun, calm, tolerant, friendly, well prepared, mutual respect, encourage / care for students)?</p> <p>(2) Do you think ATFB (Attractive Teacher Features) has a higher student rating?</p>						
1.1.1 In my opinion, the attractive characteristics of teachers in MOOC teaching are: patience, serious and responsible to students, and rich professional knowledge.	1.2.1 I think the attractive characteristics of teachers in MOOC teaching are: a sense of humor, creativity, fun, well prepared, respect for each other, encourage / care for students.	1.3.1 I think the attractive characteristics of teachers in MOOC teaching are: creativity, tolerance and friendliness	1.4.1 I think the attractive characteristics of teachers in MOOC teaching are: a sense of humor and creativity.	1.5.1 I think the attractive characteristics of teachers in MOOC teaching are: creative, well-prepared.	1.6.1 I think the attractions of teachers in MOOC teaching are: fun, well-prepared, and mutual respect.	1.7.1 I think the attractive characteristics of teachers in MOOC teaching are: creative, responsible, mutual respect, and encouraging / caring for students.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
<p>1. (1) What do you think are ATFB (Attractive Teacher Features) in MOOC teaching (e. g.: sense of humor, creativity, fun, calm, tolerant, friendly, well prepared, mutual respect, encourage / care for students)?</p> <p>(2) Do you think ATFB (Attractive Teacher Features) has a higher student rating?</p>						
1.1.2 I think the attractive teacher characteristics can obtain a higher student evaluation.	1.2.2 I think the attractive teacher characteristics can obtain a higher student evaluation.	1.3.2 I think the attractive teacher characteristics will get a higher student evaluation.	1.4.2 I think the attractive teacher characteristics can obtain a higher student evaluation.	1.5.2 I think the attractive teacher characteristics will get a higher student evaluation	1.6.2 I think the attractive teacher characteristics will get a higher student evaluation	1.7.2 I think attractive teacher characteristics get higher student ratings



Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
<p>1. (1) What do you think are ATFB (Attractive Teacher Features) in MOOC teaching (e. g.: sense of humor, creativity, fun, calm, tolerant, friendly, well prepared, mutual respect, encourage / care for students)?</p> <p>(2) Do you think ATFB (Attractive Teacher Features) has a higher student rating?</p>						
1.8.1 I think the attractive characteristics of teachers in MOOC teaching are: a sense of humor, creativity, fun, well-prepared, respect for each other,	1.9.1 I think the attractive characteristics of teachers in MOOC teaching are: interesting, tolerant and friendly.	1.10.1 I think the attractive characteristics of teachers in MOOC teaching are: a sense of humor, well prepared and mutual respect.	<p>Creative (R2, R3, R5, R7, R8)</p> <p>Fully prepared (R2, R5, R6, R8, R10)</p> <p>Mutual Respect for R2, R6, R7, R8, R10)</p> <p>Sense of Humour (R2, R4, R8, R10)</p>	Attractive teacher characteristics	<p>creativity</p> <p>at full cock</p> <p>mutual respect</p> <p>sense of humor</p>	

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
<p>1. (1) What do you think are ATFB (Attractive Teacher Features) in MOOC teaching (e. g.: sense of humor, creativity, fun, calm, tolerant, friendly, well prepared, mutual respect, encourage / care for students)?</p> <p>(2) Do you think ATFB (Attractive Teacher Features) has a higher student rating?</p>						
<p>encouragement / care for students.</p> <p>1.8.2 I think attractive teacher characteristics get higher student ratings</p>	<p>1.9.2 I think attractive teacher characteristics get higher student ratings</p>	<p>1.10.2 I think the attractive teacher characteristics will get a higher student evaluation</p>	<p>Attractive teacher characteristics yield higher student ratings (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)</p>	<p>Attractive teacher characteristics would yield higher student ratings</p>	<p>Attractive teacher characteristics would yield higher student ratings</p>	<p>Giving full play to the characteristics of attractive teachers in MOOC teaching will obtain higher student evaluation.</p>

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
2. (1) What kind of personality do you think of a teacher that will teach you until you finish the course (e. g.: optimistic, irritable, cold, and friendly)? (2) Do you agree to let me provide a good and interesting example in MOOC teaching? (3) Do you agree that the friendly teachers and smiles in MOOC teaching lead me to the end like a movie? (4) Do you agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end? (5) Do you agree that teachers are heroes in MOOC teaching?						
2.1.1 I think the teacher's character is positive and optimistic, and the enthusiasm will let me learn until the completion of the course.	2.2.1 I think the character of teachers is optimistic. 2.2.2 I agree to give a good and interesting example in MOOC teaching.	2.3.1 I think teachers' character is optimistic and friendly. 2.3.2 I agree to give more examples in MOOC teaching, which is more acceptable to students.	2.4.1 I think the character of teachers is friendly and enthusiastic. 2.4.2 I agree to give a good and interesting example in MOOC teaching.	2.5.1 I think the character of teachers is optimistic and friendly. 2.5.2 I agree to give a good and interesting example in MOOC teaching.	2.6.1 I think the teacher's humorous character will let me learn until I finish the course. 2.6.2 I agree to give a good and interesting example in MOOC teaching.	2.7.1 I think the character of teachers is optimistic. 2.7.2 I agree to give a good and interesting example in MOOC teaching.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
2. (1) What kind of personality do you think of a teacher that will teach you until you finish the course (e. g.: optimistic, irritable, cold, and friendly)? (2) Do you agree to let me provide a good and interesting example in MOOC teaching? (3) Do you agree that the friendly teachers and smiles in MOOC teaching lead me to the end like a movie? (4) Do you agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end? (5) Do you agree that teachers are heroes in MOOC teaching?						
2.1.2 I agree to let me provide a good and interesting example in MOOC teaching.	2.2.3 I agree that friendly teachers in MOOC teaching perform better.	2.3.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to	2.4.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to learn like a film to the end.	2.5.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to learn like a film to the end.	2.6.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to learn like a film to the end.	2.7.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to learn like a film to the end.
2.1.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to learn like a film to the end.	2.2.4 I agree that friendly teachers will teach like playing games.	learn like a film to the end.				

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
2. (1) What kind of personality do you think of a teacher that will teach you until you finish the course (e. g.: optimistic, irritable, cold, and friendly)? (2) Do you agree to let me provide a good and interesting example in MOOC teaching? (3) Do you agree that the friendly teachers and smiles in MOOC teaching lead me to the end like a movie? (4) Do you agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end? (5) Do you agree that teachers are heroes in MOOC teaching?						
2.1.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end. 2.1.5 I agree that teachers are heroes in our hearts in MOOC teaching.	2.2.5 I cannot agree, because the teaching is rigorous.	2.3.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end. 2.3.5 I disagree, the metaphor is inappropriate.	2.4.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play like making games to the end. 2.4.5 I disagree; the word hero is too heavy.	2.5.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end. 2.5.5 I agree that in MOOC teaching, teachers are heroes in our hearts, and they are teachers' character.	2.6.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play like making games to the end. 2.6.5 I disagree. The teacher is not a great man.	2.7.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end. 2.7.5 I don't agree. I think martyrs are heroes.

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
2. (1) What kind of personality do you think of a teacher that will teach you until you finish the course (e. g.: optimistic, irritable, cold, and friendly)? (2) Do you agree to let me provide a good and interesting example in MOOC teaching? (3) Do you agree that the friendly teachers and smiles in MOOC teaching lead me to the end like a movie? (4) Do you agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end? (5) Do you agree that teachers are heroes in MOOC teaching?						
2.8.1 I think teachers' character is optimistic and friendly. I can't accept a irritable personality.	2.9.1 I think the teacher's character is interesting. 2.9.2 I agree to give a good and interesting example in MOOC teaching.	2.10.1 I think the character of teachers is optimistic and friendly. 2.10.2 I agree to give a good and interesting example in MOOC teaching.	Optimism (R1, R2, R3, R5, R7, R8, R10) Friendly (R3, R4, R5, R8, R10) Good and interesting examples (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	The teacher's personality is: optimistic and friendly Good and interesting examples are needed in MOOC teaching	The teacher's character: optimistic and friendly Good and interesting examples of MOOC teaching can attract more learners	In MOOC teaching, the teaching design affects learners' completion rate

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
2. (1) What kind of personality do you think of a teacher that will teach you until you finish the course (e. g.: optimistic, irritable, cold, and friendly)? (2) Do you agree to let me provide a good and interesting example in MOOC teaching? (3) Do you agree that the friendly teachers and smiles in MOOC teaching lead me to the end like a movie? (4) Do you agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end? (5) Do you agree that teachers are heroes in MOOC teaching?						
2.8.2 I agree to give a good and interesting example in MOOC teaching. 2.8.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to learn like a film to the end.	2.9.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to learn like a film to the end.	2.10.3 I agree that the friendly teachers and smiles in MOOC teaching make me want to learn to the end like a movie.	Friendly teachers and smiles just watch movies and play games (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	Friendly teachers and smiles are needed in MOOC teaching, and learners will stick to the end as if they are watching a movie or playing a game	Friendly teachers and smiles in MOOC teaching enable learners to insist on completing the course	

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
2. (1) What kind of personality do you think of a teacher that will teach you until you finish the course (e. g.: optimistic, irritable, cold, and friendly)? (2) Do you agree to let me provide a good and interesting example in MOOC teaching? (3) Do you agree that the friendly teachers and smiles in MOOC teaching lead me to the end like a movie? (4) Do you agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end? (5) Do you agree that teachers are heroes in MOOC teaching?						
2.8.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end. 2.8.5 I don't agree. I think the hero.	2.9.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end. 2.9.5 I agree that teachers are heroes in our hearts in MOOC teaching.	2.10.4 I agree that the friendly teachers and smiles in MOOC teaching make me want to play like making games to the end. 2.10.5 I don't agree, I think the teacher is the leader, this metaphor is more appropriate.	Teacher is not a hero (R2, R3, R4, R5, R6, R7, R8, R10)			



Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
<p>13. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies?</p> <p>(2) Do you agree with the MOOC course. A beautiful teacher makes me enthusiastically log in to every class?</p> <p>(3) Do you agree with MOOC's high common sense to let me enjoy learning?</p> <p>(4) Do you think that ATFB (Attractive Teacher Features) will increase the interaction with learners?</p>						
3.1.1 I don't agree with the teachers' behavior in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies,	3.2.1 I agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese films.	3.3.1 I agree that the fun and creativity of teachers in MOOC teaching will be more attractive to me.	3.4.1 I agree to pay more attention to the teachers' fun and creative ideas. 3.4.2 I do not agree with the teacher is beautiful to attract me,	3.5.1 I agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese films.	3.6.1 I agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese films.	3.7.1 I don't agree with the behavior of teachers in MOOC teaching that is as interesting and creative as Stephen Chow in Chinese movies.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
<p>13. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies?</p> <p>(2) Do you agree with the MOOC course. A beautiful teacher makes me enthusiastically log in to every class?</p> <p>(3) Do you agree with MOOC's high common sense to let me enjoy learning?</p> <p>(4) Do you think that ATFB (Attractive Teacher Features) will increase the interaction with learners?</p>						
because it will make me focus less than enough in my study, and I will pay more attention to the teachers' fun and creative.	<p>3.2.2 I agree that a beautiful teacher let me enthusiastically in every class.</p> <p>3.2.3 I agree that MOOC's high common sense makes me enjoy learning.</p>	<p>3.3.2 I agree that a beautiful teacher lets me enthusiastically in every class. I like it better if I do it.</p>	<p>I will pay more attention to the teacher's teaching ability.</p> <p>3.4.3 I agree that MOOC's high common sense makes me enjoy learning Because focusing on the point is not a boring theory.</p>	<p>3.5.2 I agree that a beautiful teacher let me enthusiastically in every class. I like it better if I do it.</p> <p>3.5.3 I agree that MOOC's high common sense makes me enjoy learning.</p>	<p>3.6.2 I agree that a beautiful teacher lets me enthusiastically in every course. I like it better if I do it.</p> <p>3.6.3 I agree that MOOC's high common sense makes me enjoy learning.</p>	<p>Teaching is not about watching movies.</p> <p>3.7.2 I do not agree that the teacher is beautiful to attract me, I will pay more attention to the teacher's teaching ability.</p>

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
<p>13. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies?</p> <p>(2) Do you agree with the MOOC course. A beautiful teacher makes me enthusiastically log in to every class?</p> <p>(3) Do you agree with MOOC's high common sense to let me enjoy learning?</p> <p>(4) Do you think that ATFB (Attractive Teacher Features) will increase the interaction with learners?</p>						
<p>3.1.2 I agree that a beautiful teacher let me enthusiastically in every class.</p> <p>3.1.3 I agree that MOOC's high common sense makes me enjoy learning.</p>	<p>3.2.4 I think attractive teacher characteristics will increase the interaction with learners. Because learning is the process of communication between teachers and students.</p>	<p>3.3.3 I agree that MOOC's high common sense makes me enjoy learning.</p> <p>3.3.4 I think friendly teachers I will be happy to increase the interaction.</p>	<p>3.4.4 I think the teacher's problems attract me, I will take the initiative to interact.</p>	<p>3.5.4 I think attractive teacher characteristics will increase the interaction with learners.</p>	<p>It would work even more if you gave you more examples.</p> <p>3.6.4 I think attractive teacher characteristics will increase the interaction with learners.</p>	<p>3.7.3 I agree that MOOC's high common sense makes me enjoy learning.</p>

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
<p>13. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies?</p> <p>(2) Do you agree with the MOOC course. A beautiful teacher makes me enthusiastically log in to every class?</p> <p>(3) Do you agree with M O O C's high common sense to let me enjoy learning?</p> <p>(4) Do you think that ATFB (Attractive Teacher Features) will increase the interaction with learners?</p>						
3.1.4 I think attractive teacher characteristics will increase the interaction with learners.						3.7.4 I think that attractive teacher characteristics will increase the interaction with learners. Especially for patient teachers, the interaction will be more.

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
<p>13. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies?</p> <p>(2) Do you agree with the MOOC course. A beautiful teacher makes me enthusiastically log in to every class?</p> <p>(3) Do you agree with MOOC's high common sense to let me enjoy learning?</p> <p>(4) Do you think that ATFB (Attractive Teacher Features) will increase the interaction with learners?</p>						
3.8.1 I agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese films.	3.9.1 I agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese films.	3.10.1 I agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese films.	<p>Interesting and creative (R1, R2, R3, R4, R5, R6, R8, R9, R10)</p> <p>Beautiful teacher (R1, R2, R3, R5, R6, R8, R9, R10)</p>	<p>Attractive teacher characteristics</p> <p>High common sense</p>	<p>Attractive teacher characteristics: fun and creative; beautiful teachers;</p>	<p>ATFB (attractive teacher characteristics in MOOC teaching) are: fun and creative; beautiful teacher;</p>

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
<p>13. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies?</p> <p>(2) Do you agree with the MOOC course. A beautiful teacher makes me enthusiastically log in to every class?</p> <p>(3) Do you agree with MOOC's high common sense to let me enjoy learning?</p> <p>(4) Do you think that ATFB (Attractive Teacher Features) will increase the interaction with learners?</p>						
Because Stephen Chow's character image has also deeply influenced us. 3.8.2 I agree that a beautiful teacher makes me enthusiastically in every course.	Stephen Chow's characters can't surpass me for now. 3.9.2 I agree that a beautiful teacher let me enthusiastically in every class. Because there is no visual fatigue.	3.10.2 I agree that a beautiful teacher let me enthusiastically log in every class. 3.10.3 I agree that MOOC's high common sense makes me enjoy learning.	High common sense (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	Increase the interaction with the learners	High common sense	The teacher competence is high level in MOOC teaching.

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
<p>13. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies?</p> <p>(2) Do you agree with the MOOC course. A beautiful teacher makes me enthusiastically log in to every class?</p> <p>(3) Do you agree with MOOC's high common sense to let me enjoy learning?</p> <p>(4) Do you think that ATFB (Attractive Teacher Features) will increase the interaction with learners?</p>						
<p>3.8.3 I agree that MOOC's high common sense makes me enjoy learning.</p> <p>3.8.4 I think for friendly teachers I will be happy to increase the interaction.</p>	<p>3.9.3 I agree that MOOC's high common sense makes me enjoy learning.</p> <p>3.9.4 I think friendly teachers I will be happy to increase the interaction.</p>	<p>3.10.4 I think friendly teachers will be happy to increase the interaction.</p>	<p>Increased interaction with the learner (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)</p>		<p>Increase interaction</p>	<p>ATFB (attractive teacher characteristics) increases interaction with learners.</p>

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
4. (1) What do you think are the capabilities of ATFB (Attractive Teacher Features) (such as high technology, authority, professional)? (2) Do you think the ATFB (Attractive Teacher Features) teaching design inspires learners?						
4.1.1 I think the ability of ATFB (attractive teacher characteristics) is highly technical and professional. 4.1.2 I think it can stimulate the enthusiasm of learners	4.2.1 I think the ability of ATFB (attractive teacher characteristics) is high technical level. 4.2.2 I think the ATFB (attractive teacher characteristics) teaching design can motivate learners.	4.3.1 I think the ability of ATFB (attractive teacher characteristics) is professional. 4.3.2 I think the ATFB (attractive teacher characteristics) teaching design can motivate learners.	4.4.1 I think the ability of ATFB (attractive teacher characteristics) is high technical level. 4.4.2 I think the ATFB (attractive teacher characteristics) teaching design can motivate learners.	4.5.1 I think the ability of ATFB (attractive teacher characteristics) is highly technical and professional. 4.5.2 I think the ATFB (attractive teacher characteristics) teaching design can motivate learners.	4.6.1 I think the ability of ATFB (attractive teacher characteristics) is professional. 4.6.2 I think the ATFB (attractive teacher characteristics) teaching design can motivate learners.	4.7.1 I think the ability of ATFB (attractive teacher characteristics) is professional. 4.7.2 I think the ATFB (attractive teacher characteristics) teaching design does not motivate learners.



Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
4. (1) What do you think are the capabilities of ATFB (Attractive Teacher Features) (such as high technology, authority, professional)? (2) Do you think the ATFB (Attractive Teacher Features) teaching design inspires learners?						
4.8.1 I regard the competence of the ATFB (attractive teacher characteristics) as the authority. 4.8.2 I think the ATFB (attractive teacher characteristics) teaching design can motivate learners.	4.9.1 I think the ability of ATFB (attractive teacher characteristics) is professional. 4.9.2 I think the ATFB (attractive teacher characteristics) teaching design can motivate learners.	4.10.1 I think the ability of ATFB (attractive teacher characteristics) is the authority. 4.10.2 I think the ATFB (attractive teacher characteristics) teaching design can motivate learners.	Specialties (R1, R3, R5, R6, R7, R9) High level of technology (R1, R2, R4, R5,) Instructional design inspires the learners (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	specialty  High technical level  enthusiasm	Teaching ability of teachers	In MOOC teaching, teachers' teaching ability is: professional. In MOOC teaching, teachers' teaching ability is: high technical level. In MOOC teaching, ATFB (attractive teacher characteristics) teaching design can motivate learners.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.1.1 I think teachers can keep learners' attention with an enthusiastic tone.	5.2.1 I think on the MOOC platform, teachers can keep the learners' attention.	5.3.1 I think teachers can keep learners' attention with an enthusiastic tone.	5.4.1 I think teachers can keep learners' attention with an enthusiastic tone.	5.5.1 I think teachers can keep learners' attention by using an enthusiastic tone.	5.6.1 I think teachers can keep learners' attention with an enthusiastic tone.	5.7.1 I think teachers can keep learners' attention with an enthusiastic tone.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.1.2 I think teachers 'use professional knowledge teaching can attract learners' attention.	5.2.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.	5.3.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.	5.4.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.	5.5.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.	5.6.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.	5.7.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.1.3 I think teachers can use creative and interesting topics to attract learners' attention.	5.2.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.	5.3.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.	5.4.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.	5.5.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.	5.6.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.	5.7.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.1.4 I think teachers' encouragement and care for students can help learners to pay attention.	5.2.4 I think on the MOOC platform, teachers encourage and care for students can help learners concentrate.	5.3.4 I think on the MOOC platform, teachers encourage and care for students can help learners concentrate.	5.4.4 I think on the MOOC platform, teachers encourage and care for students can help learners concentrate.	5.5.4 I think on the MOOC platform, teachers encourage and care for students can help learners concentrate.	5.6.4 I think that on the MOOC platform, teachers who encourage and care for students can help learners concentrate.	5.7.4 I think that on the MOOC platform, teachers who encourage and care for students can help learners concentrate respect between teachers and

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.1.5 I think mutual respect between teachers and learners can attract learners' attention.	5.2.5 I think that on the MOOC platform, mutual respect between teachers and learners can attract the attention of learners.	5.3.5 I think that on the MOOC platform, mutual respect between teachers and learners can attract the attention of learners.	5.4.5 I think that on the MOOC platform, mutual respect between teachers and learners can attract the attention of learners.	5.5.5 I think that on the MOOC platform, mutual respect between teachers and learners can attract the attention of learners.	5.6.5 I think that on the MOOC platform, mutual respect between teachers and learners can attract the attention of learners.	learners can attract the attention of learners.  5.7.5 I think that on the MOOC platform, mutual

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	Appraise
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.8.1 I think teachers can keep learners' attention with an enthusiastic tone.	5.9.1 I think teachers can keep learners' attention by using an enthusiastic tone.	5.10.1 I think teachers use an enthusiastic tone to keep learners' attention.	Enthusiastic tone maintains the learner (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	Warm tone  Professional knowledge	The motivation of the learner	On the MOOC platform, teachers use a warm tone to keep the learners' attention.

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	Appraise
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.8.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.	5.9.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.	5.10.2 I think that on the MOOC platform, teachers who use professional knowledge teaching can attract learners' attention.	Professional knowledge teaching attracts the attention of learners (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	Creative and interesting		On the MOOC platform, teachers use professional knowledge teaching to attract learners' attention.



Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	Appraise
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.8.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.	5.9.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.	5.10.3 I think that on the MOOC platform, teachers can use creative and interesting topics to attract learners' attention.	Creative and interesting thematic content for learners (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	Encourage and care  Mutual respect		On the MOOC platform, teachers use creative and interesting topics to attract learners' attention.

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	Appraise
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.8.4 I think on the MOOC platform, teachers encourage and care for students can help learners concentrate.	5.9.4 I think on the MOOC platform, teachers encourage and care for students can help learners concentrate.	5.10.4 I think that on the MOOC platform, teachers who encourage and care for students can help learners to concentrate.	Encouraging and caring for students can help learners pay attention (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)			On the MOOC platform, teachers who encourage and care for students can help learners concentrate.

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	Appraise
5. (1) On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention? (2) On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention? (3) On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention? (4) On MOOC, can teachers encourage and care that students can help learners focus? (5) On the MOOC platform, do teachers and learners respect each other to attract learners' attention?						
5.8.5 I think that on the MOOC platform, mutual respect between teachers and learners can attract the attention of learners.	5.9.5 I think that on the MOOC platform, mutual respect between teachers and learners can attract the attention of learners.	5.10.5 I think that on the MOOC platform, mutual respect between teachers and learners can attract the attention of learners.	Mutual respect with learners (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)			On the MOOC platform, teachers and learners respect each other to attract the learners' attention.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
6. (1) On the MOOC platform, do learners learn what they want to learn? (2) On the MOOC platform, what contacts do learners get during the learning process (e. g., when the acquired knowledge is in the connection between work and career development)? (3) On the MOOC platform, do learners learn what they want to learn after completing their learning?						
6.1.1 I think you can learn what you want to learn. 6.1.2 I think the knowledge gained through MOOC learning can help me improve my work ability and help my future career development.	6.2.1 I think I can learn what I want to learn, but I can't remember if I have too much content. 6.2.2 I think the knowledge gained through MOOC learning can help me improve my working ability.	6.3.1 I think you can learn what you want to learn. Attractive teacher characteristics will attract me more.	6.4.1 I think you can learn what you want to learn. 6.4.2 I think that through MOOC, a platform that gathers the teaching resources of top universities in the world,	7.5.1 I think you can learn what you want to learn. 7.5.2 I think the knowledge pairs obtained through MOOC learning are related to the classroom teaching part.	6.6.1 I think you can learn what you want to learn. 6.6.2 I think the knowledge gained through MOOC learning can help me fill the previous gap.	6.7.1 I think you can learn what you want to learn. 6.7.2 I think the knowledge gained through MOOC learning can help me improve my skills.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
6. (1) On the MOOC platform, do learners learn what they want to learn? (2) On the MOOC platform, what contacts do learners get during the learning process (e. g., when the acquired knowledge is in the connection between work and career development)? (3) On the MOOC platform, do learners learn what they want to learn after completing their learning?						
6.1.3 I think I can learn what you want to learn after completing the study.	6.2.3 I think I can learn what you want to learn after completing the study.	6.3.2 I think the knowledge gained through MOOC learning can help me improve my professional level, and I can arrange my time to study freely.	Students can acquire themselves without threshold. 6.4.3 I think I can learn what you want to learn after completing the study.	7.5.3 I think I can learn what you want to learn after completing the study.	6.6.3 I think I can learn something related to professional courses after the completion of the study.	6.7.3 I think it can help me to better consolidate the original knowledge after completing the study.

Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5	Respondent 6	Respondent 7
6. (1) On the MOOC platform, do learners learn what they want to learn? (2) On the MOOC platform, what contacts do learners get during the learning process (e. g., when the acquired knowledge is in the connection between work and career development)? (3) On the MOOC platform, do learners learn what they want to learn after completing their learning?						
		6.3.3 I think I can learn what you want to learn after completing the study. Large, open online courses are also available for free without school status.				

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
6. (1) On the MOOC platform, do learners learn what they want to learn? (2) On the MOOC platform, what contacts do learners get during the learning process (e. g., when the acquired knowledge is in the connection between work and career development)? (3) On the MOOC platform, do learners learn what they want to learn after completing their learning?						
6.8.1 I think I can learn some knowledge. 6.8.2 I think the knowledge gained through MOOC learning can help me improve my work ability and help my future career development.	6.9.1 I think I can learn some knowledge. 6.9.2 I think the knowledge gained through MOOC learning can help me improve my working ability.	6.10.1 I think there is too much content to learn some knowledge. 6.10.2 I think the knowledge gained through MOOC learning can help me improve my working ability.	Learn want to learn(R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	Learn what you want to learn  Ability to work	Completion	On MOOC platforms, learners learn what they want to learn. On the MOOC platform, what connections learners make in the learning process

Respondent 8	Respondent 9	Respondent 10	Coding round 1	Coding cycle 2	Categorizing (Keyword)	appraise
6. (1) On the MOOC platform, do learners learn what they want to learn? (2) On the MOOC platform, what contacts do learners get during the learning process (e. g., when the acquired knowledge is in the connection between work and career development)? (3) On the MOOC platform, do learners learn what they want to learn after completing their learning?						
6.8.3 I think I can learn what you want to learn after completing the study.	6.9.3 I think there is too much content to learn and learn some knowledge.	6.10.3 I think there is too much content, so you can learn some knowledge.	Ability to work(R1, R2, R8, R9, R10)  Study done.  Share to want to learn something(R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)	Learn what you want to learn when you're done		(e.g., the connections between the acquired knowledge in work and career development).  On the MOOC platform, learners learn what they want to learn after completing the study.





## Appendix C

### **ATFB (Attractive Teacher Features) instructional Design assessment of MOOC learners' motivation and completion rates**

Dear Research Respondents,

Thank you very much for taking time out of your busy schedule to fill in this questionnaire. The purpose of this survey is to explore the exploratory analysis of the teaching design of ATFB (Attractive Teacher Features) in adult higher education of Baise University, and to obtain the factors that can effectively improve the learning motivation and completion rate of MOOC learners. To some extent, this will help teachers better understand the behaviors of MOOC learners, improve the teaching design from the perspective of MOOC learners, and meet the needs of MOOC learners. It will also benefit MOOC learners who want to choose Baise Adult Higher Education ATFB (Attractive Teacher Features) instructional design. Your serious answer means a lot to me; Hope to get your support and help. This questionnaire does not involve personal privacy. It is only used for academic research. Please fill in as much as you can. Thank you very much for your participation!

If you have any question please contact Xing

Phone: 13387765183

email: 406239511@qq.com

Direction: Please read the research questions and choose your best answer

Part I: Basic Information

Please mark  $\checkmark$  in the following questions that meet your basic situation

1. What is your gender?

☐ Male

☐ Female

2. How old are you?

☐ Under 21 years old

☐ 21-25 years old

☐ 26-30 years old

☐ Above 30 years old

3. How long have you been working?

☐ I haven't a job yet

☐ Within three year

☐ 3-5 years

☐ More than 5 years

4. What's your salary?

☐ Under 3000

☐ 3000-5000

☐ 5000-10000

☐ More than 10000

Email contact (Please specify)\_\_\_\_\_

QQ number (Please specify)\_\_\_\_\_

## Part II: Investigation Items

Teacher charm —— Teacher personality —— Develop character —— Teacher behavior —— Teacher ability —— Cause student motivation —— Completion rate

1 = Strongly disagreed 2 = Disagreed 3 = Neutral 4 = Agreed

5 = Strongly Agreed

Item	Research Questions	1	2	3	4	5
1	Do you think ATFB (Attractive Teacher Features) in MOOC teaching is creative?					
2	Do you consider ATFB (Attractive Teacher Features) in MOOC teaching to be well-prepared?					
3	Do you think ATFB (Attractive Teacher Features) in MOOC teaching is mutual respect?					
4	Do you think ATFB (Attractive Teacher Features) in MOOC teaching is having a sense of humor?					
5	Do you think ATFB (Attractive Teacher Features) has a higher student rating?					
6	Do you think the teacher's optimistic personality will keep you studying until you finish the course?					
7	Do you think the friendly character of the teacher will keep you studying until you finish the course?					
8	Do you agree to let me provide a good and interesting example in MOOC teaching?					

Item	Research Questions	1	2	3	4	5
9	Do you agree that the friendly teachers and smiles in MOOC teaching lead me to the end like a movie?					
10	Do you agree that the friendly teachers and smiles in MOOC teaching make me want to play the game to the end?					
11	Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in Chinese movies?					
12	Do you agree with the MOOC course. A beautiful teacher makes me enthusiastically log in to every class?					
13	Do you agree with MOOC high common sense to let me enjoy learning?					
14	Do you think that ATFB (Attractive Teacher Features) will increase the interaction with learners?					
15	Do you think ATFB (Attractive Teacher Features) ability is high technical level?					
16	Do you consider ATFB (Attractive Teacher Features) competence to be professional?					
17	Do you think the ATFB (Attractive Teacher Features) teaching design inspires learners?					
18	On MOOC platforms, do teachers use an enthusiastic tone to keep learners' attention?					

Item	Research Questions	1	2	3	4	5
19	On the MOOC platform, do teachers use professional knowledge teaching to attract learners' attention?					
20	On the MOOC platform, do teachers use creative and interesting topics to attract learners' attention?					
21	On MOOC, can teachers encourage and care that students can help learners focus?					
22	On the MOOC platform, do teachers and learners respect each other to attract learners' attention?					
23	On the MOOC platform, do learners learn what they want to learn?					
24	On the MOOC platform, the knowledge acquired by learners in the learning process can improve their working ability?					
25	Is it helpful for learners to complete their study in the MOOC platform for their career development?					

## Appendix D

### IOC Item Content Validity

Title: ATFB (Attractive Teacher Features) instructional Design assessment of MOOC learners' motivation and completion rates

**Objective:** In this paper, qualitative analysis and quantitative analysis are combined to conduct an exploratory analysis on the teaching design of adult higher education ATFB (Attractive Teacher Features) in Baise University, and the factors that can effectively improve the motivation and completion rate of MOOC learners are obtained. To some extent, this will help teachers better understand the behaviors of MOOC learners and improve the teaching design from the perspective of MOOC learners to meet the needs of MOOC learners. Will also benefit MOOC learners who want to opt for Baise Adult Higher Education ATFB (Attractive Teacher Features) instructional design.

**Student ID:** 7640201492

**Student Name:** XingXing Yu

Date of Collection May 30, 2022

Questions	Expert 1	Comment & Suggestion
	DingYao Zheng	
1. (1) What do you think are the ATFB (Attractive Teacher Features) in MOOC teaching (e.g., having a sense of humor, creativity, fun, calmness, tolerance, friendliness, preparation, mutual respect, encouragement/concern for students)?	Good	

Questions	Expert 1	Comment & Suggestion
	DingYao Zheng	
(2) Do you think ATFB (Attractive Teacher Features) get higher student evaluations?	Good	
2. (1)What kind of personality do you think a teacher has that will keep you studying until the end of the course (e.g. optimistic, irritable, cold, friendly)?	Good	
(2) Do you agree to let me provide a good and interesting example in MOOC teaching?	Good	
(3) Do you agree that friendly teachers and smiles in MOOC teaching make me want to study to the end like a movie?	Good	
(4) Do you agree that friendly teachers and smiles in MOOC teaching make me want to play to the end like playing a game?	Good	
(5) Do you agree that teachers in MOOC teaching are heroes in our hearts?	Good	
3. Do you agree with MOOC that train teachers to make me focus more on even boring subjects (e.g., traits of extroversion, conscientiousness and openness)?	Good	

Questions	Expert 1	Comment & Suggestion
	DingYao Zheng	
4. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in The Chinese film?	Good	
(2) Do you agree with the MOOC course, a beautiful teacher let me enthusiastically log in every course?	Good	
(3) Do you agree that the high common sense of MOOC enables me to enjoy learning?	Good	
(4) Do you think ATFB (Attractive Teacher Features) will increase interaction with learners?	Good	
5. (1) What competencies do you think ATFB (Attractive Teacher Features) have (e.g., high technical level, authority, professionalism)?	Good	
(2) Do you think the TEACHING design of ATFB (Attractive Teacher Features) stimulates the enthusiasm of learners?	Good	
6. (1) On the MOOC platform, does the enthusiastic tone of teachers keep learners' attention?	Good	
(2) On the MOOC platform, can teachers attract learners' attention by teaching with professional knowledge?	Good	



Questions	Expert 1	Comment & Suggestion
	DingYao Zheng	
(3) On the MOOC platform, do teachers use creative and interesting topics to explain content to attract learners' attention?	Good	
(4) On the MOOC platform, can teachers' encouragement and care for students help learners to focus their attention?	Good	
(5) On the MOOC platform, does mutual respect between teachers and learners attract learners' attention?	Good	
7.		
(1) Do learners learn what they want to learn on MOOC platform?	Good	
(2) On the MOOC platform, what connections do learners acquire in the learning process (for example, the connection between the knowledge acquired in work and career development)?	Good	
(3) On the MOOC platform, can learners learn what they want to learn after completing the learning?	Good	

Approved and Endorsed:

-----  
( Dr. )

Contact Number:

Lecturer:

### IOC Item Content Validity

Title: ATFB (Attractive Teacher Features) instructional Design assessment of MOOC learners' motivation and completion rates

**Objective:** In this paper, qualitative analysis and quantitative analysis are combined to conduct an exploratory analysis on the teaching design of adult higher education ATFB (Attractive Teacher Features) in Baise University, and the factors that can effectively improve the motivation and completion rate of MOOC learners are obtained. To some extent, this will help teachers better understand the behaviors of MOOC learners and improve the teaching design from the perspective of MOOC learners to meet the needs of MOOC learners. Will also benefit MOOC learners who want to opt for Baise Adult Higher Education ATFB (Attractive Teacher Features) instructional design.

**Student ID:** 7640201492

**Student Name:** XingXing Yu

Date of Collection May 30, 2022

Questions	Expert 2	Comment & Suggestion
	QiuXue Luo	
1. (1) What do you think are the ATFB (Attractive Teacher Features) in MOOC teaching (e.g., having a sense of humor, creativity, fun, calmness, tolerance, friendliness, preparation, mutual respect, encouragement/concern for students)?	Bad	Generally speaking, you don't ask too many answers to a question, unless you can't give an example.

Questions	Expert 2	Comment & Suggestion
	QiuXue Luo	
(2) Do you think ATFB (Attractive Teacher Features) get higher student evaluations?	Good	
2. (1)What kind of personality do you think a teacher has that will keep you studying until the end of the course (e.g. optimistic, irritable, cold, friendly)?	Good	
(2) Do you agree to let me provide a good and interesting example in MOOC teaching?	Good	
(3) Do you agree that friendly teachers and smiles in MOOC teaching make me want to study to the end like a movie?	Good	
(4) Do you agree that friendly teachers and smiles in MOOC teaching make me want to play to the end like playing a game?	Good	
(5) Do you agree that teachers in MOOC teaching are heroes in our hearts?	Bad	Is that an appropriate analogy?
3. Do you agree with MOOC that train teachers to make me focus more on even boring subjects (e.g., traits of extroversion, conscientiousness and openness)?	Bad	Not good understanding

Questions	Expert 2	Comment & Suggestion
	QiuXue Luo	
4. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in The Chinese film?	Bad	There is still a difference between the course and the movie, so I wonder if this analogy has any effect on the results.
(2) Do you agree with the MOOC course, a beautiful teacher let me enthusiastically log in every course?	Good	
(3) Do you agree that the high common sense of MOOC enables me to enjoy learning?	Good	
(4) Do you think ATFB (Attractive Teacher Features) will increase interaction with learners?	Good	
5. (1) What competencies do you think ATFB (Attractive Teacher Features) have (e.g., high technical level, authority, professionalism)?	Good	As with the first question, it's best to look at your answer and see if you need an example.
(2) Do you think the TEACHING design of ATFB (Attractive Teacher Features) stimulates the enthusiasm of learners?	Good	

Questions	Expert 2	Comment & Suggestion
	QiuXue Luo	
6. (1) On the MOOC platform, does the enthusiastic tone of teachers keep learners' attention?	Good	
(2) On the MOOC platform, can teachers attract learners' attention by teaching with professional knowledge?	Good	
(3) On the MOOC platform, do teachers use creative and interesting topics to explain content to attract learners' attention?	Good	
(4) On the MOOC platform, can teachers' encouragement and care for students help learners to focus their attention?	Good	
(5) On the MOOC platform, does mutual respect between teachers and learners attract learners' attention?	Good	
7. (1) Do learners learn what they want to learn on MOOC platform?	Good	
(2) On the MOOC platform, what connections do learners acquire in the learning process (for example, the connection between the knowledge acquired in work and career development)?	Good	

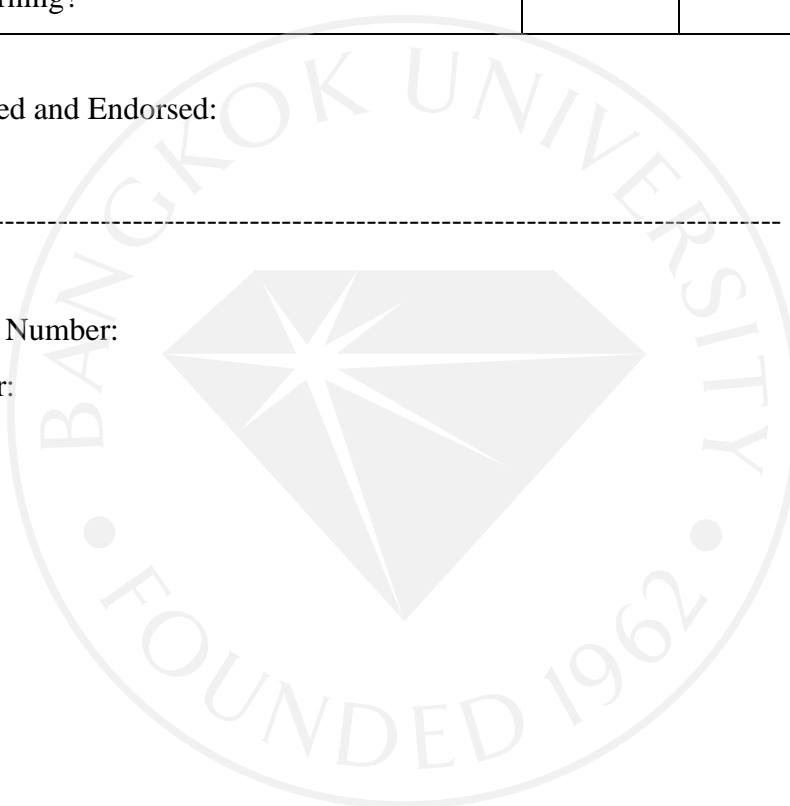
Questions	Expert 2	Comment & Suggestion
	QiuXue Luo	
(3) On the MOOC platform, can learners learn what they want to learn after completing the learning?	Bad	Difference from 7. (1)?

Approved and Endorsed:

( Dr. )

Contact Number:

Lecturer:



### IOC Item Content Validity

Title: ATFB (Attractive Teacher Features) instructional Design assessment of MOOC learners' motivation and completion rates

**Objective:** In this paper, qualitative analysis and quantitative analysis are combined to conduct an exploratory analysis on the teaching design of adult higher education ATFB (Attractive Teacher Features) in Baise University, and the factors that can effectively improve the motivation and completion rate of MOOC learners are obtained. To some extent, this will help teachers better understand the behaviors of MOOC learners and improve the teaching design from the perspective of MOOC learners to meet the needs of MOOC learners. Will also benefit MOOC learners who want to opt for Baise Adult Higher Education ATFB (Attractive Teacher Features) instructional design.

**Student ID:** 7640201492

**Student Name:** XingXing Yu

Date of Collection May 30, 2022

Questions	Expert 3	Comment & Suggestion
	Daoling Zhang	
1. (1) What do you think are the ATFB (Attractive Teacher Features) in MOOC teaching (e.g., having a sense of humor, creativity, fun, calmness, tolerance, friendliness, preparation, mutual respect, encouragement/concern for students)?	Good	
(2) Do you think ATFB (Attractive Teacher Features) get higher student evaluations?	Good	

Questions	Expert 3	Comment & Suggestion
	Daoling Zhang	
2.	Good	
(1)What kind of personality do you think a teacher has that will keep you studying until the end of the course (e.g. optimistic, irritable, cold, friendly)?		
(2) Do you agree to let me provide a good and interesting example in MOOC teaching?	Good	
(3) Do you agree that friendly teachers and smiles in MOOC teaching make me want to study to the end like a movie?	Good	
(4) Do you agree that friendly teachers and smiles in MOOC teaching make me want to play to the end like playing a game?	Good	
(5) Do you agree that teachers in MOOC teaching are heroes in our hearts?	Good	
3. Do you agree with MOOC that train teachers to make me focus more on even boring subjects (e.g., traits of extroversion, conscientiousness and openness)?	Bad	It is difficult to cultivate the teacher's character in the later period. If it is teacher's ability, it can be cultivated, but it is consistent with 5. (1)



Questions	Expert 3	Comment & Suggestion
	Daoling Zhang	
4. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in The Chinese film	Good	
(2) Do you agree with the MOOC course, a beautiful teacher let me enthusiastically log in every course?	Good	
(3) Do you agree that the high common sense of MOOC enables me to enjoy learning?	Good	
(4) Do you think ATFB (Attractive Teacher Features) will increase interaction with learners?	Good	
5. (1) What competencies do you think ATFB (Attractive Teacher Features) have (e.g., high technical level, authority, professionalism)?	Good	
(2) Do you think the TEACHING design of ATFB (Attractive Teacher Features) stimulates the enthusiasm of learners?	Good	
6. (1) On the MOOC platform, does the enthusiastic tone of teachers keep learners' attention?	Good	
(2) On the MOOC platform, can teachers attract learners' attention by teaching with professional knowledge?	Good	
(3) On the MOOC platform, do teachers use creative and interesting topics to explain content to attract learners' attention?	Good	

Questions	Expert 3	Comment & Suggestion
	Daoling Zhang	
(4)On the MOOC platform, can teachers' encouragement and care for students help learners to focus their attention?	Good	
(5) On the MOOC platform, does mutual respect between teachers and learners attract learners' attention?	Good	
7. (1)Do learners learn what they want to learn on MOOC platform?	Good	
(2)On the MOOC platform, what connections do learners acquire in the learning process (for example, the connection between the knowledge acquired in work and career development)?	Good	
(3) On the MOOC platform, can learners learn what they want to learn after completing the learning?	Good	

Approved and Endorsed:

-----

( Dr. )

Contact Number:

Lecturer:

### IOC Item Content Validity

**Title:** ATFB (Attractive Teacher Features) instructional Design assessment of MOOC learners' motivation and completion rates

**Objective:** In this paper, qualitative analysis and quantitative analysis are combined to conduct an exploratory analysis on the teaching design of adult higher education ATFB (Attractive Teacher Features) in Baise University, and the factors that can effectively improve the motivation and completion rate of MOOC learners are obtained. To some extent, this will help teachers better understand the behaviors of MOOC learners and improve the teaching design from the perspective of MOOC learners to meet the needs of MOOC learners. Will also benefit MOOC learners who want to opt for Baise Adult Higher Education ATFB (Attractive Teacher Features) instructional design.

**Student ID:** 7640201492

**Student Name:** XingXing Yu

Date of Collection May 30, 2022

Questions	Expert 4	Comment & Suggestion
	Qi Hongju	
1. (1) What do you think are the ATFB (Attractive Teacher Features) in MOOC teaching (e.g., having a sense of humor, creativity, fun, calmness, tolerance, friendliness, preparation, mutual respect, encouragement/concern for students)?	Good	

Questions	Expert 4	Comment & Suggestion
	Qi HongJu	
(2) Do you think ATFB (Attractive Teacher Features) get higher student evaluations?	Good	
2. (1) What kind of personality do you think a teacher has that will keep you studying until the end of the course (e.g. optimistic, irritable, cold, friendly)?	Good	
(2) Do you agree to let me provide a good and interesting example in MOOC teaching?	Good	
(3) Do you agree that friendly teachers and smiles in MOOC teaching make me want to study to the end like a movie?	Good	
(4) Do you agree that friendly teachers and smiles in MOOC teaching make me want to play to the end like playing a game?	Good	
(5) Do you agree that teachers in MOOC teaching are heroes in our hearts?	Good	
3. Do you agree with MOOC that train teachers to make me focus more on even boring subjects (e.g., traits of extroversion, conscientiousness and openness)?	Bad	Open interviews can, for example, cultivate: MOOC competence, teaching competence? However, consideration should be given to duplication with the previous problem

Questions	Expert 4	Comment & Suggestion
	Qi HongJu	
4. (1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in The Chinese film?	Good	Creative, but need a teacher with appropriate ethical literacy.
(2) Do you agree with the MOOC course, a beautiful teacher let me enthusiastically log in every course?	Good	
(3) Do you agree that the high common sense of MOOC enables me to enjoy learning?	Good	
(4) Do you think ATFB (Attractive Teacher Features) will increase interaction with learners?	Good	
5. (1) What competencies do you think ATFB (Attractive Teacher Features) have (e.g., high technical level, authority, professionalism)?	Good	
(2) Do you think the TEACHING design of ATFB (Attractive Teacher Features) stimulates the enthusiasm of learners?	Good	
6. (1) On the MOOC platform, does the enthusiastic tone of teachers keep learners' attention?	Good	
(2) On the MOOC platform, can teachers attract learners' attention by teaching with professional knowledge?	Good	

Questions	Expert 4	Comment & Suggestion
	Qi HongJu	
(3)On the MOOC platform, do teachers use creative and interesting topics to explain content to attract learners' attention?	Good	
(4)On the MOOC platform, can teachers' encouragement and care for students help learners to focus their attention?	Good	
(5) On the MOOC platform, does mutual respect between teachers and learners attract learners' attention?	Good	
7. 1) Do learners learn what they want to learn on MOOC platform?	Good	
2) On the MOOC platform, what connections do learners acquire in the learning process (for example, the connection between the knowledge acquired in work and career development)?	Good	
3) On the MOOC platform, can learners learn what they want to learn after completing the learning?	Good	

Approved and Endorsed:

-----

( Dr. )

Contact Number:

Lecturer:

## Appendix E

### IOC Score Table

Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	IOC score	Comment
		Dr.Zheng	Dr.Luo	Dr.Zhang	Dr.Qi		
1	1) What do you think are the ATFB (Attractive Teacher Features) in MOOC teaching (e.g., having a sense of humor, creativity, fun, calmness, tolerance, friendliness, preparation, mutual respect, encouragement/concern for students)?	0.25	0	0.25	0.25	0.75	
	2) Do you think ATFB (Attractive Teacher Features) get higher student evaluations?	0.25	0.25	0.25	0.25	1	

Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	IOC score	Comment
		Dr.Zheng	Dr.Luo	Dr.Zhang	Dr.Qi		
2	1) What kind of personality do you think a teacher has that will keep you studying until the end of the course (e.g. optimistic, irritable, cold, friendly)?	0.25	0.25	0.25	0.25	1	
	2) Do you agree to let me provide a good and interesting example in MOOC teaching?	0.25	0.25	0.25	0.25	1	
	3) Do you agree that friendly teachers and smiles in MOOC teaching make me want to study to the end like a movie?	0.25	0.25	0.25	0.25	1	
	4) Do you agree that friendly teachers and smiles in MOOC teaching make me want to play to the end like playing a game?	0.25	0.25	0.25	0.25	1	



Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	IOC score	Comment
		Dr.Zheng	Dr.Luo	Dr.Zhang	Dr.Qi		
	5) Do you agree that teachers in MOOC teaching are heroes in our hearts?	0.25	0	0.25	0.25	0.75	
3	Do you agree with MOOC that train teachers to make me focus more on even boring subjects (e.g., traits of extroversion, conscientiousness and openness)?	0.25	0	0	0	0.25	
4	1) Do you agree that the behavior of teachers in MOOC teaching is as interesting and creative as Stephen Chow in The Chinese film?	0.25	0	0.25	0.25	0.75	
	(2) Do you agree with the MOOC course, a beautiful teacher let me enthusiastically log in every course?	0.25	0.25	0.25	0.25	1	

Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	IOC score	Comment
		Dr.Zheng	Dr.Luo	Dr.Zhang	Dr.Qi		
	3) Do you agree that the high common sense of MOOC enables me to enjoy learning?	0.25	0.25	0.25	0.25	1	
	4) Do you think ATFB (Attractive Teacher Features) will increase interaction with learners?	0.25	0.25	0.25	0.25	1	
5	1) What competencies do you think ATFB (Attractive Teacher Features) have (e.g., high technical level, authority, professionalism)?	0.25	0.25	0.25	0.25	1	
	2) Do you think the TEACHING design of ATFB (Attractive Teacher Features) stimulates the enthusiasm of learners?	0.25	0.25	0.25	0.25	1	
6	1) On the MOOC platform, does the enthusiastic tone of teachers keep learners' attention?	0.25	0.25	0.25	0.25	1	

Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	IOC score	Comment
		Dr.Zheng	Dr.Luo	Dr.Zhang	Dr.Qi		
	2) On the MOOC platform, can teachers attract learners' attention by teaching with professional knowledge?	0.25	0.25	0.25	0.25	1	
	3) On the MOOC platform, do teachers use creative and interesting topics to explain content to attract learners' attention?	0.25	0.25	0.25	0.25	1	
	4) On the MOOC platform, can teachers' encouragement and care for students help learners to focus their attention?	0.25	0.25	0.25	0.25	1	
	5) On the MOOC platform, does mutual respect between teachers and learners attract learners' attention?	0.25	0.25	0.25	0.25	1	
7	1) Do learners learn what they want to learn on MOOC platform?	0.25	0.25	0.25	0.25	1	

Item	Questions	Expert 1	Expert 2	Expert 3	Expert 4	IOC score	Comment
		Dr.Zheng	Dr.Luo	Dr.Zhang	Dr.Qi		
	2) On the MOOC platform, what connections do learners acquire in the learning process (for example, the connection between the knowledge acquired in work and career development)?	0.25	0.25	0.25	0.25	1	
	3) On the MOOC platform, can learners learn what they want to learn after completing the learning?	0.25	0	0.25	0.25	0.75	

**BIODATA**

**Name:** Mr. Yu Xingxing

**Email:** 406239511@qq.com

**Educational Background:** From January 2014 to June 2016,  
Bachelor's Degree at Baise University

