



An Approach to Develop Learning Motivation of Upgrading to College
Students Through ARCS Motivation Model in Baise University

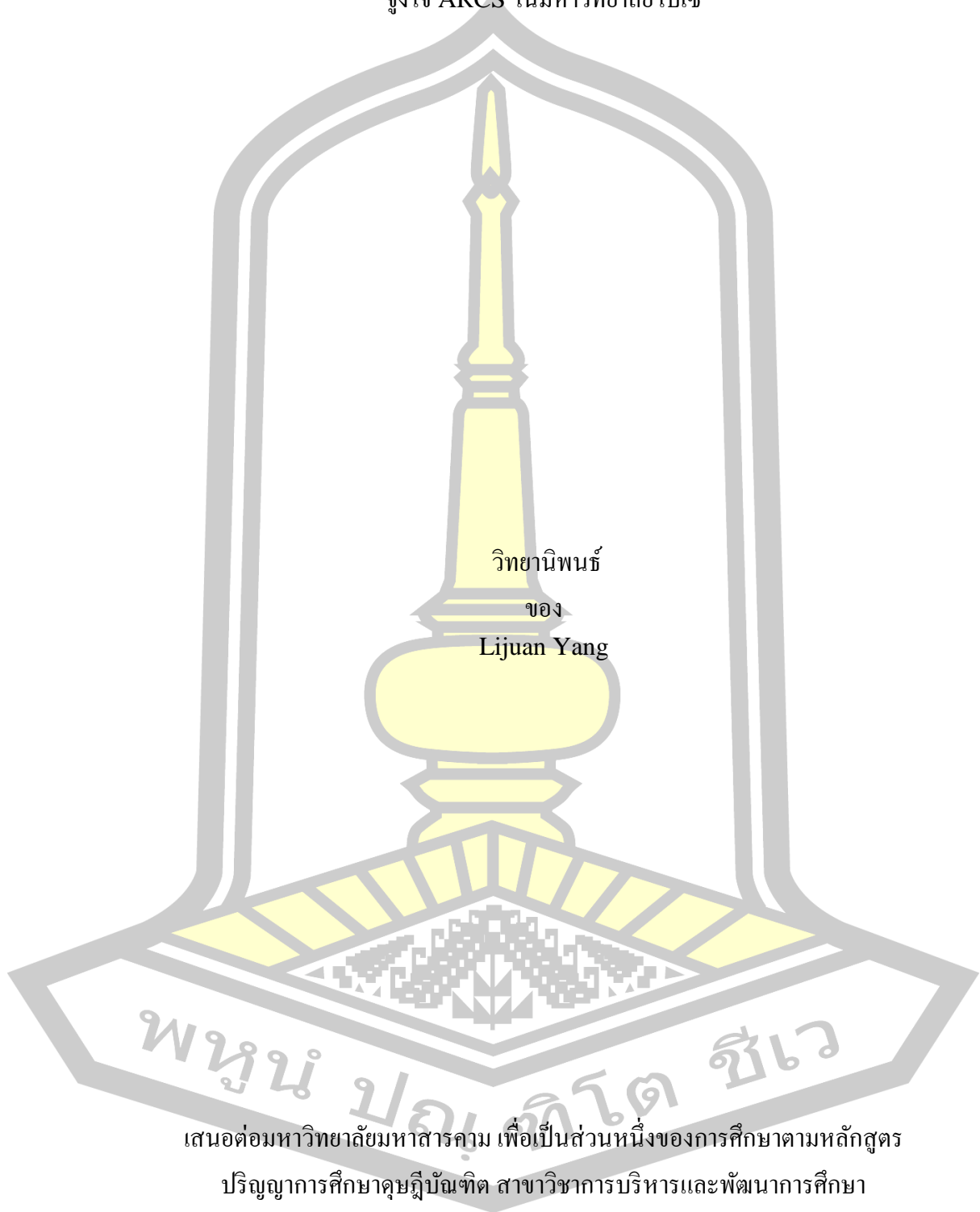
Lijuan Yang

A Thesis Submitted in Partial Fulfillment of Requirements for
degree of Doctor of Education in Educational Administration and Development

January 2025

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วิธีการพัฒนาการจูงใจในการเรียนรู้ของนักศึกษาที่กำลังเข้าสู่ระดับมหาวิทยาลัยโดยใช้โมเดลการ
จูงใจ ARCS ในมหาวิทยาลัยไป๋เซ่



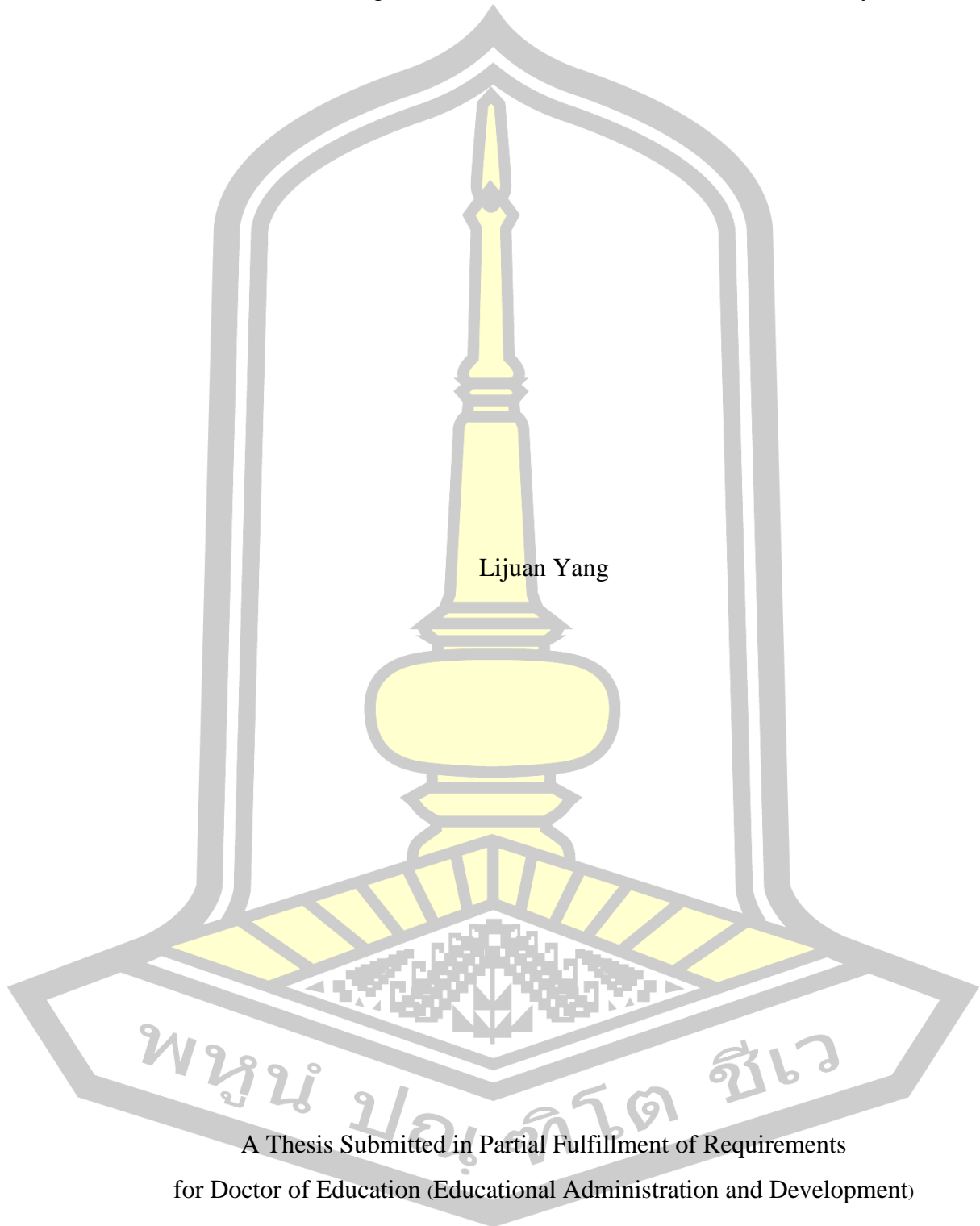
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เสนอต่อมหาวิทยาลัยมหาสารคาม เพื่อเป็นส่วนหนึ่งของการศึกษาตามหลักสูตร
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January 2025

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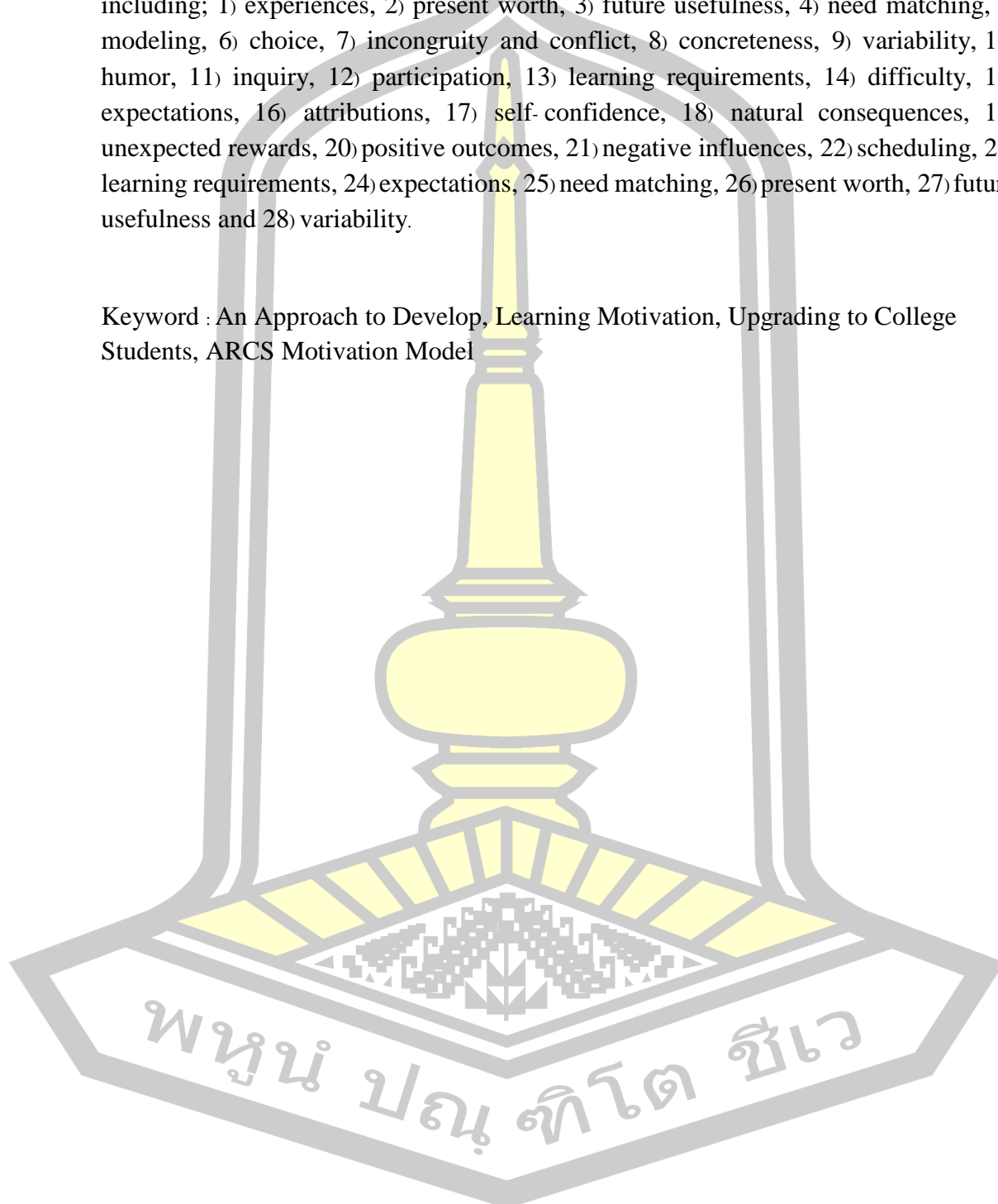
ABSTRACT

The research aimed to 1) investigate components of learning motivation of upgrading to college students in Baise University, 2) explore the existent condition, desired condition and priority need index of learning motivation of upgrading to college students in Baise University and 3) design, construct, and assess an approach to develop learning motivation of upgrading to college students in Baise University. The samples were divided into 3 phases: Phase 1) 5 qualified informants for suitability of components, Phase 2) 5 qualified experts for the questionnaire assessment and 2 groups of upgrading to college students in Baise University obtained by random sampling technique; the first one was 30 subjects for trying out the questionnaire and the other was 271 subjects for collecting the data. Phase 3) 5 best practice key men for information to design and construct the approach to develop learning motivation of upgrading to college students in Baise University as well as 5 qualified experts to assess the developed approach. The research tools were: 1) a set of 5-rating scale questionnaire on the existent condition, desired condition of learning motivation, 2) an interview form for information on learning motivation components approach and 3) a form of suitability and feasibility assessment on the approach to develop learning motivation of upgrading to college students. Statistics used in data analysis were IOC, mean, standard deviation and PNI modified.

The results revealed as followings: 1) There were 5 components of learning motivation of upgrading college students in Baise University including; Knowledge value, Learning interest, Learning ability, Achievement attribution and External influence, 2) The existent condition of learning motivation of upgrading to college students in Baise University in total and achievement attribution as well as external influence components were at medium levels but the desired condition of which both in total and each of the components were at the very high level and the priority need index of which was in order from the first to the last including; Knowledge

value, Learning interest, Learning ability, Achievement attribution and External influence. 3) An approach to develop learning motivation of upgrading to college students in Baise University through ARCS Model was shown by 28 activities including; 1) experiences, 2) present worth, 3) future usefulness, 4) need matching, 5) modeling, 6) choice, 7) incongruity and conflict, 8) concreteness, 9) variability, 10) humor, 11) inquiry, 12) participation, 13) learning requirements, 14) difficulty, 15) expectations, 16) attributions, 17) self-confidence, 18) natural consequences, 19) unexpected rewards, 20) positive outcomes, 21) negative influences, 22) scheduling, 23) learning requirements, 24) expectations, 25) need matching, 26) present worth, 27) future usefulness and 28) variability.

Keyword : An Approach to Develop, Learning Motivation, Upgrading to College Students, ARCS Motivation Model



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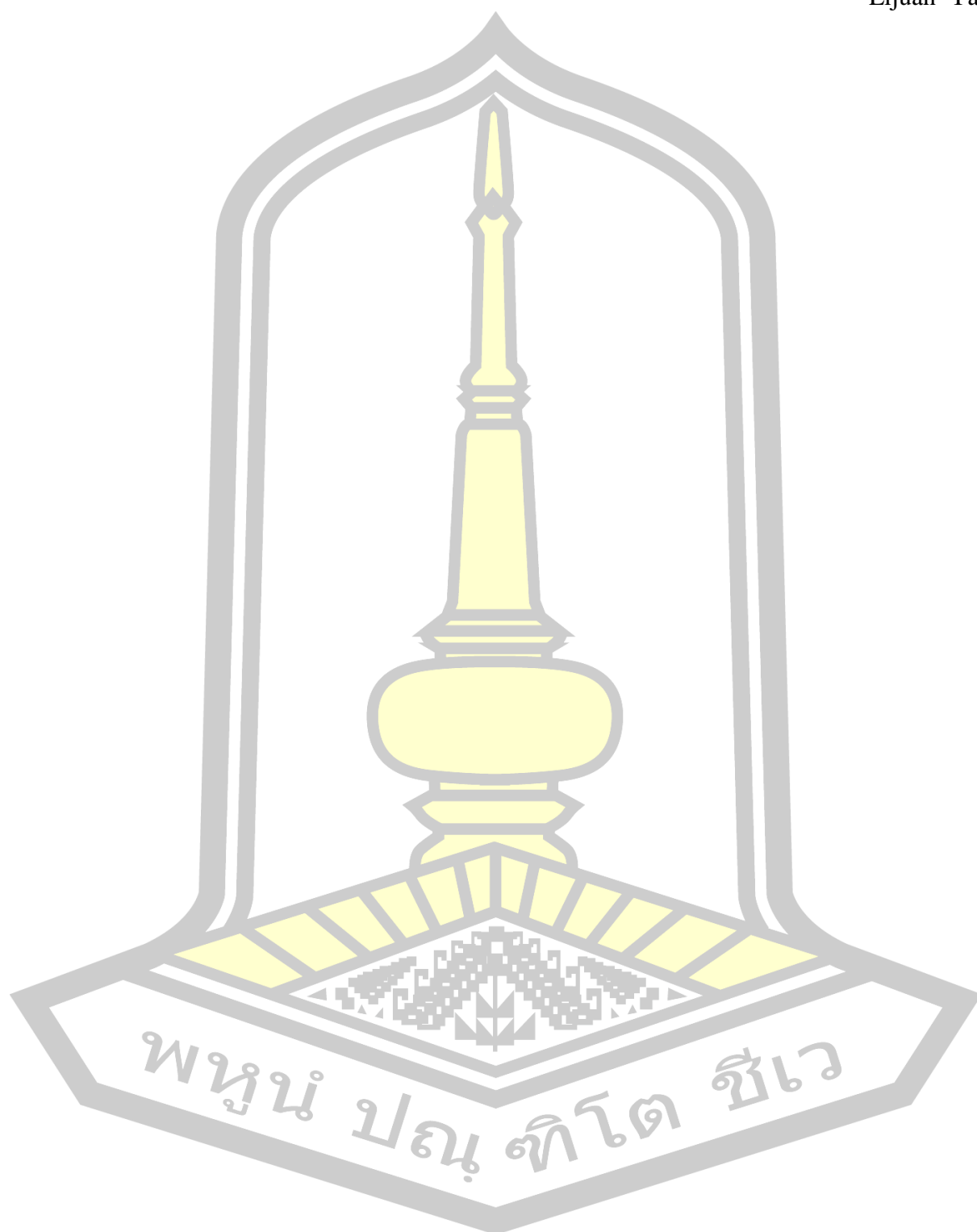


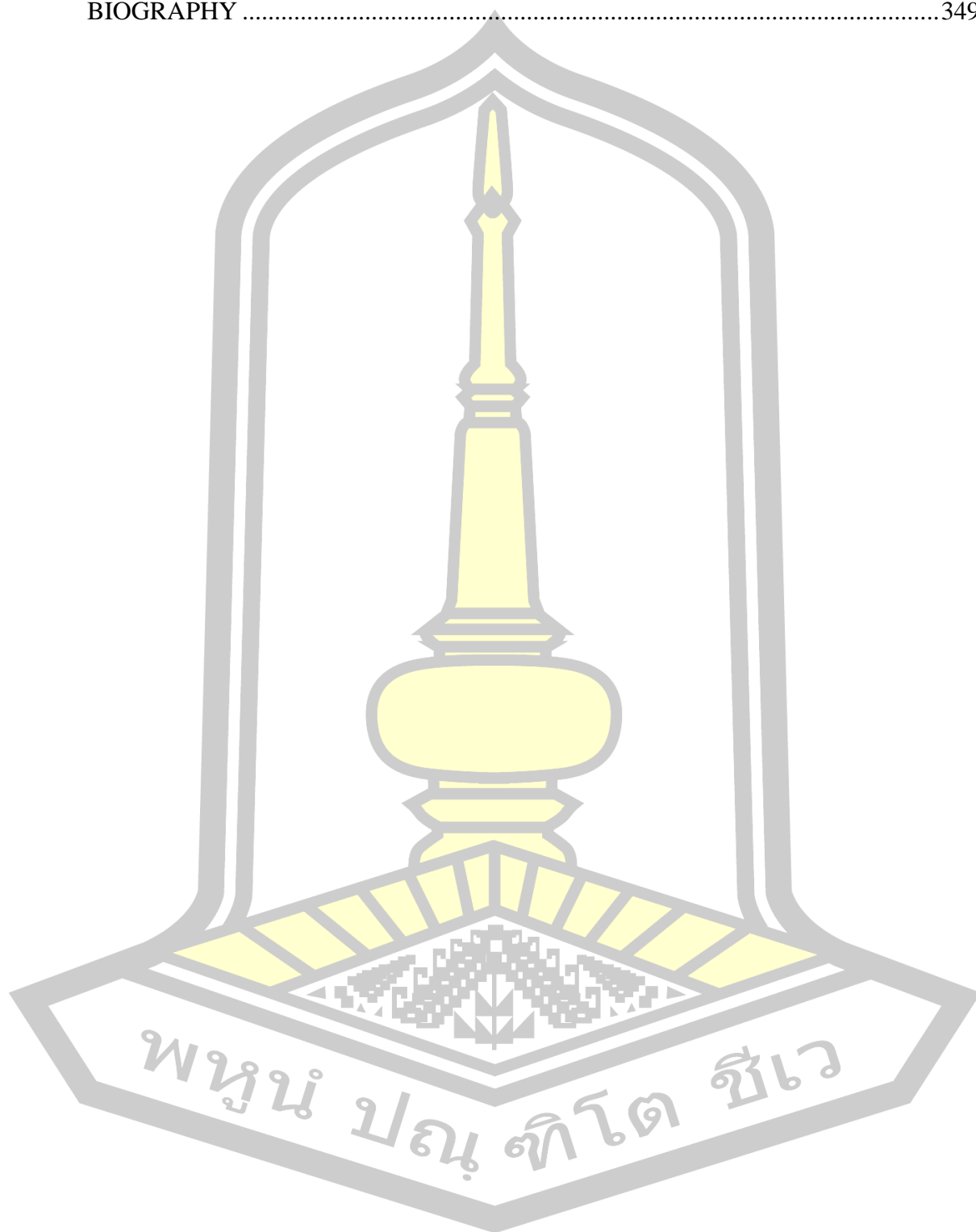
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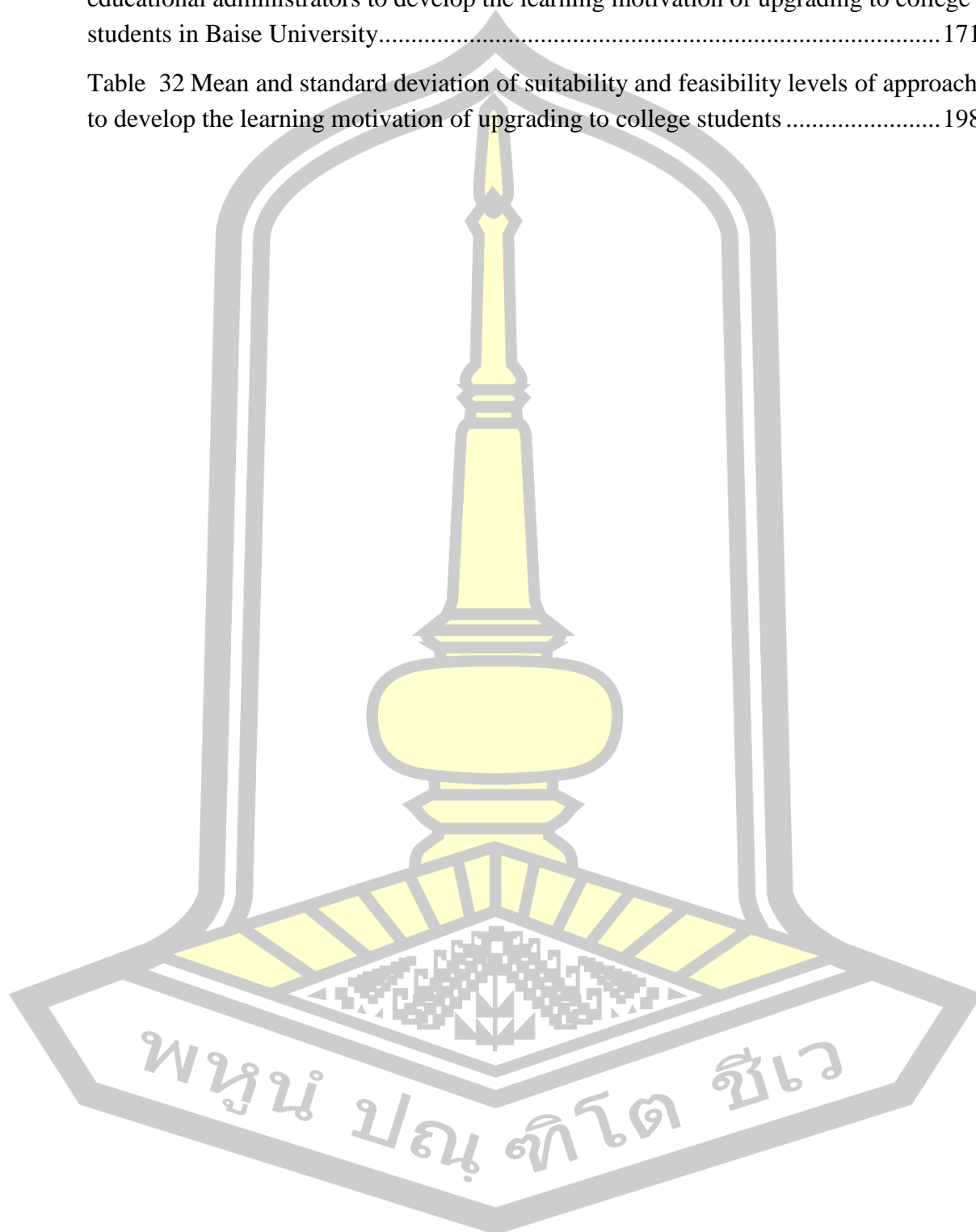
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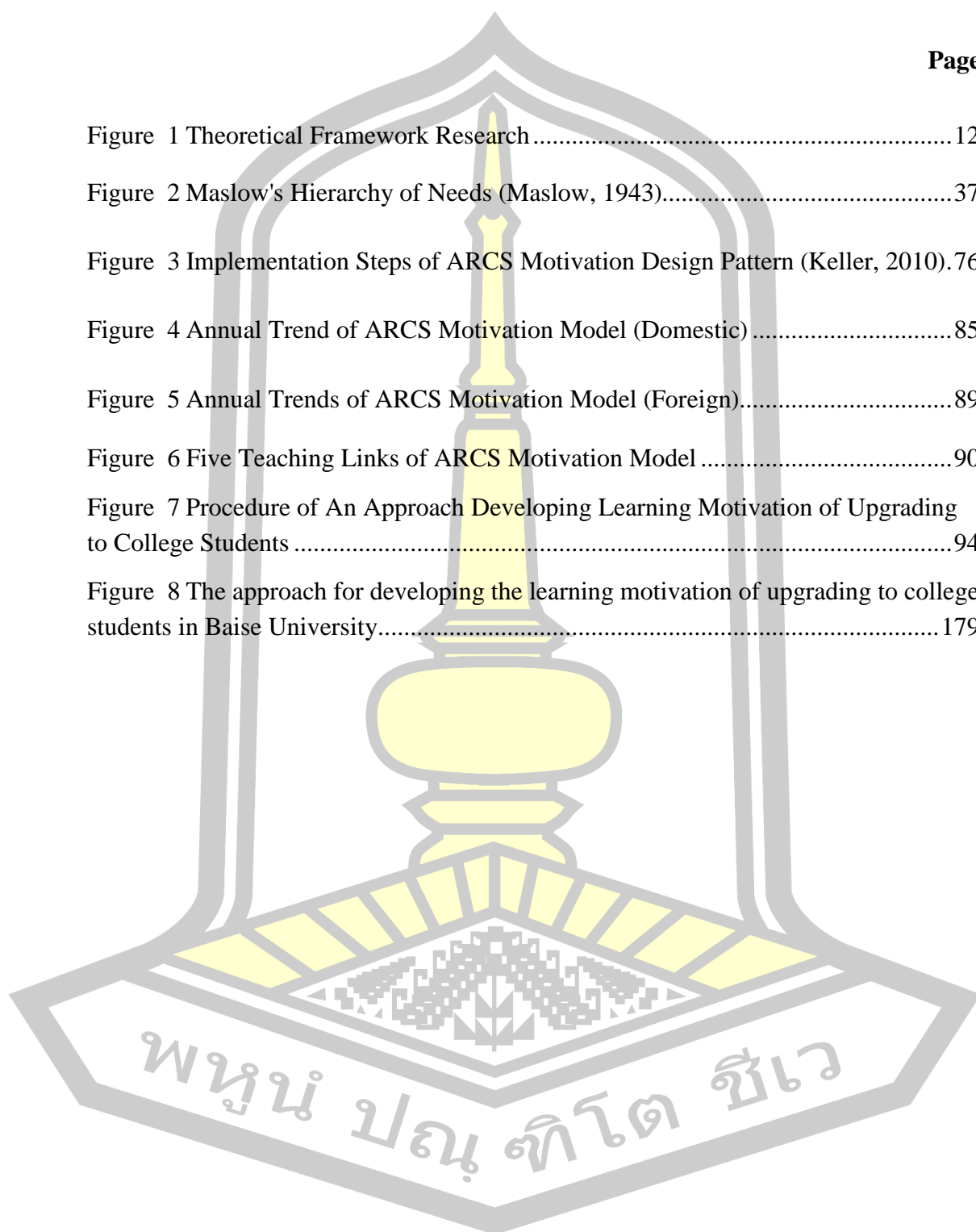
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CHAPTER I

INTRODUCTION

Background

“Upgrading to College” students refer to higher vocational college graduates in Chinese higher education system in order to obtain a higher level of education, through the relevant examinations into ordinary undergraduate universities to continue their studies. Since 1990, a major reform of the Chinese talent-training model has been the selection of top students from vocational school students for undergraduate studies, this mode not only opens a channel for some excellent college students to receive higher education, but also promotes the development of education and economy in China. (Li Jingwei, Li Jianbin, 2023)

According to the *The Higher Education Law of the People's Republic of China* (1999), the number of years of study for specialized education and undergraduate teaching is different, and the academic standards are also different. Specialist education should master specialized knowledge, undergraduate education should master basic knowledge, and have the initial ability of research work. The orientation of higher vocational colleges is generally to train skilled talents, while undergraduate education cultivates academic and applied talents according to the orientation and specialty characteristics of the school. Therefore, the students receive three years of skill training in the junior college stage; After entering the undergraduate stage, they directly study with the third grade of the four-year ordinary undergraduate students, and receive two years of academic and application ability training (equivalent to the third and fourth grades of the four-year ordinary undergraduate students), which is the training mode of "3+2". (*Higher Education Law*, 1999)

The Ministry of Education and the National Development and Reform Commission issued the *Notice on Compiling and Reporting the 2006 General Higher Education Enrollment Plan by Schools and Majors*(2006), requiring that the enrollment scale of ordinary colleges and universities should be strictly controlled within 5% of the

fresh graduates of provincial higher vocational colleges (junior colleges) in the year, and included in the total scale of ordinary undergraduate courses issued by the state. For a long time, provinces have strictly enforced a 5% enrollment scale. But in recent years, with the development of higher education and the enhancement of people's demand for the promotion of academic qualifications, the enrollment scale has expanded rapidly. According to the “*Action Plan for Quality and Excellence in Vocational Education 2023(2020-2023)*” (2020) issued by the Ministry of Education and other nine departments, from 2020 to the 2023 period, the state will still “Moderately expand the undergraduate enrollment program to provide some college graduates with the opportunity to further their studies.” Chen Ziji, director-general of the Department of Vocational Education and Adult Education of the Ministry of Education, said that the proportion of the country has reached 20% at present, thus it can be seen that the number of students will remain stable in the increase. (Chen Ziji, 2022)

Baise University is an ordinary undergraduate university approved by the Ministry of Education in 2006. It originated from Tianxi Normal School of Guangxi Province in 1938. For more than 80 years, the school based on Baise's unique “Revolutionary, national, frontier” advantage resources, out of a hard road to entrepreneurship development. The transformation and development of the school has gone through four stages: exploration, initial formation, deepening and formation, it condenses the orientation of building a high-level application-oriented university with the spirit of Baise and cultivating high-level application-oriented talents with the spirit of Baise. Guided by its motto of “Lofty aspirations and high professionalism”, Baise University has provided the community with more than 160,000 application-oriented talents with Baise's spiritual characteristics and comprehensive development of moral, intellectual, physical and aesthetic work, it has greatly promoted the development of regional economy, society and education, and made great contributions to the economic development, social progress and national defense consolidation of the frontier ethnic areas. (Zhang Jianchun, Jiang Ping, 2023)

According to the *Report of Baise University Undergraduate Teaching Quality* (2023), Baise University covers an area of 1833.22 square meters. And it has Chengbi campus and Donghe campus, the existing Gross leasable area 472,700 square meters. The school has 21 secondary colleges, 57 undergraduate majors, 4 second degree majors, 22 colleges (higher vocational) professional. Covering economics, law, education, literature, history, science, engineering, Agronomy, management, art and other 10 disciplines. The school now has more than 20,000 students and 1,611 staff, including 1,046 full-time teachers, 233 with doctorate degrees, 301 senior titles, 4 professor and 44 Master's supervisors, there are 602 teachers who are double-qualified. (Baise University, 2023)

There are 19 majors enrolled “Upgrading to College” students in Baise University, and they are trained in 11 secondary colleges. The number of 2023 “Upgrading to College” students is about 1600. From 2020 to 2022, 2622 were enrolled, accounting for 95.66%. According to the data of the last three years, there are about 874 students from junior college to undergraduate college every year, and the enrollment of students from junior college to undergraduate college is stable. For the majors with the enrollment of 30 students in administrative classes, the school adopts the form of separate classes for teaching management. For the majors with less enrollment, it adopts the insertion of the original specialized undergraduate classes for teaching management. (Baise University, 2023)

Analysis of the current situation of undergraduate students:

1. The advantage of students of upgrading from junior college to undergraduate

1.1 Learning goals are clear

Before entering the undergraduate course, the “Junior College to undergraduate” students have three years of junior college learning experience, have formed their own learning methods, have a certain degree of professional foundation,

compared to the new students at the same time, can quickly adapt to the undergraduate study life. Not only that, once again entering the campus to study, “Junior College to undergraduate” students have higher requirements for their professional learning, ability development, they are more eager to knowledge, more clearer their learning goals, in efforts to learn cultural knowledge at the same time, try to make up their other abilities to improve their comprehensive quality. (Cai Min, 2023)

1.2 Cognition is mature

The age of admission to ordinary colleges and universities is generally between 18 and 20 years old, while the age of “College-to-university” students is generally between 21 and 23 years old. Three years of college study and life experience, so that “Junior College to undergraduate” students in all aspects of cognitive more mature and rational, with a strong mental capacity and good self-control ability, can better deal with the people, things, things around the relationship. (Cai Min, 2023)

2. The pressure and problems faced by the students of upgrading from junior college to undergraduate

2.1 The study foundation is uneven, the study pressure is big

There are some differences between higher vocational schools and undergraduate schools in the setting of teaching objectives, the implementation of teaching plans and the arrangement of teaching emphasis. First of all, undergraduate school syllabus for “College to undergraduate” student higher requirements, more attention to the cultivation of comprehensive personnel, if the students' learning habits and learning model can't fully adapt to the undergraduate study, it will affect the enthusiasm of learning. Secondly, students from different vocational school have different teaching plans and professional characteristics due to their different professional training objectives and training directions, this can lead to differences in the level of learning, the framework of the discipline, and so on among vocational school students of the same Major. Not only that, some of the “College-to-undergraduate”

student study before the major and undergraduate study of major differences or major span is large, there are professional courses to learn difficult, do not understand the class and other issues, they gradually produce greater learning pressure, which has a certain adverse impact on undergraduate study. (Liu Yongliang, Liu Zheqing, 2022)

2.2 The identity of “New” and “Non-new” grows in contradiction

After entering the human college, the students will face the same new physical and humanistic environment as the freshmen. At the same time, there are some characteristics in the course of study, such as short duration, tight curriculum, heavy task, etc. Therefore, for some of the students, the study of the “College to college” has been accompanied by the confusion of the future, the pressure of the learning environment, unfamiliar physical and human environment, inner sense of crisis, and so on, this kind of contradiction needs them to adapt to the study and life. (Liu Yongliang, Liu Zheqing, 2022)

2.3 The period of the training period is short

The other problem is that the training period is short, most of the time is only two years, that is, four semesters. In the last semester of undergraduate teaching, graduation design and employment practice are basically carried out. So junior college undergraduate stage of study is basically only a year and a half time. In a year and a half time, it is difficult to complete a system of learning discipline. (Liu Yongliang, Liu Zheqing, 2022)

Due to the particularity of the above students, it is very difficult for them to study at the undergraduate stage, and it also makes them less interested in studying. Kyle proposed the ARCS Motivation Model, in which students are motivated to learn through four dimensions: attention, relevance, confidence and satisfaction. ARCS motivation model is divided into four parts: first, to attract students' attention and interest, so that students pay attention to learning. Second, consider the relevance, so that students realize that the knowledge and their own experience is closely related.

Third, let the student be full of self-confidence to the study, believe oneself can complete the task. Fourth, let the student feel satisfied with the learning process and the learning result. ARCS motivation model can stimulate students' inner psychological motivation and make them study actively through external guidance and inducement. In order to improve the students' learning situation, stimulate their learning motivation and improve their learning efficiency, this paper investigates the learning motivation of students from junior college to undergraduate based on ARCS Motivation Model.

Research Questions

1. What are the components and indicators of learning motivation of upgrading to college student motivation model in Baise University?
2. Which level of existent condition, desired condition and priority needs index of learning motivation of upgrading to college student motivation model in Baise University are?
3. What kind of the approach to enhance learning motivation of upgrading to college students through based on ARCS Motivation Model in Baise University is?

Research Objectives

This research has three objectives, as follows:

1. To investigate components and indicators of learning motivation of upgrading to college student motivation model in Baise University.
2. To explore existent condition, desired condition and priority needs of learning motivation of upgrading to college student motivation in Baise University.
3. To design and construct an approach to develop learning motivation of upgrading to college students through based on ARCS Motivation Model in Baise University.

Research Significance

1. Theoretical significance

There are a lot of literatures about ARCS Motivation Theory at home and abroad, but there are few literatures about the present situation of students' learning motivation based on ARCS, and many scholars mainly focus on its research in a specific curriculum level, but on the level of talent training college students did not enter the in-depth study. Based on the elements of ARCS Motivation Theory, this study provides a theoretical basis for further improving students' learning motivation and promoting the quality of college personnel training.

2. Practical significance

Based on the ARCS theory of learning motivation, this study applies the four dimensions of attention, relevance, confidence and satisfaction to the study of college-to-undergraduate students, it is of great practical significance for improving the quality of study and developing education to solve the problems such as the declining interest in study and the difficulty in study.

Scope of Research

1. Scope of Contents

1.1 Components of learning motivation

From the study and synthesis of documents by various academics, the components of learning motivation consist of 5 indicators:

1.1.1 Knowledge value

1.1.2 Learning interest

1.1.3 Learning ability

1.1.4 Achievement attribution

1.1.5 External influence

1.2 Strategies of learning motivation, From the study and synthesis of documents from academics and educators. It consists of 4 important learning strategies, which are:

1.2.1 Attention

1.2.2 Relevance

1.2.3 Confidence

1.2.4 Satisfaction

1.3 Approaches of learning motivation development through ARCS include:

1) Experience, 2) Present Worth, 3) Future Usefulness, 4) Need Matching, 5) Modeling, 6) Choice, 7) Incongruity, Conflict, 8) Concreteness, 9) Variability, 10) Humor, 11) Inquiry, 12) Participation, 13) Learning Requirements, 14) Difficulty, 15) Expectations, 16) Attributions, 17) Self-Confidence, 18) Natural Consequences, 19) Unexpected Rewards, 20) Positive Outcomes, 21) Negative Influences, 22) Scheduling, 23) Learning Requirements, 24) Expectations, 25) Need Matching, 26) Present Worth, 27) Future Usefulness, 28) Variability.

1.4 Components of the approach, the researcher has studied various documents. The components of the approach include:

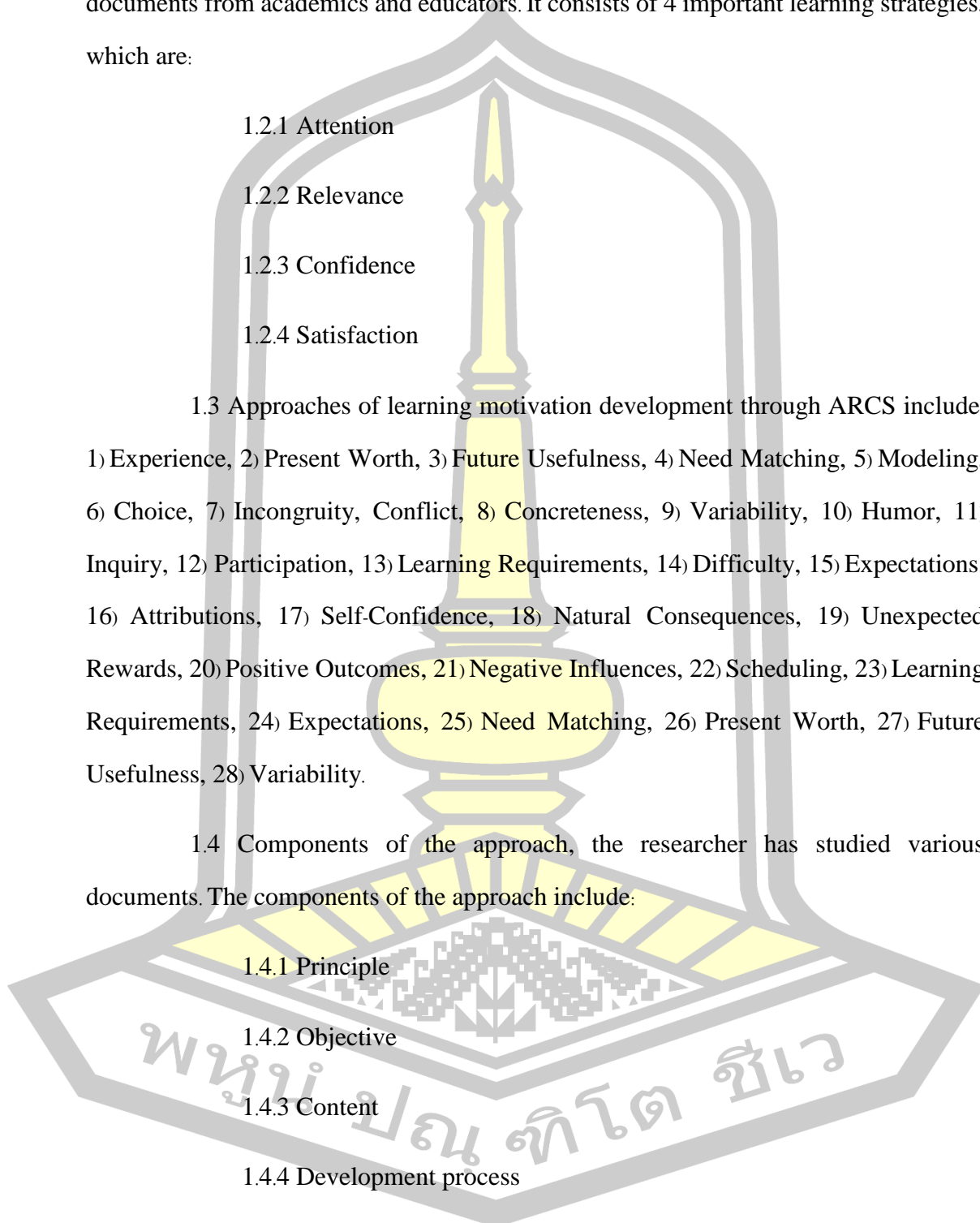
1.4.1 Principle

1.4.2 Objective

1.4.3 Content

1.4.4 Development process

1.4.5 Evaluation



1.5 The procedures of the approach Development to enhance learning motivation of upgrading to college students with the following steps;

1.5.1 Investigate to learning motivation.

1.5.2 Study the current conditions and desired conditions for learning motivation development.

1.5.3 Create approach to enhance learning motivation.

1.5.4 Evaluate the suitability and feasibility of the approach to enhance learning motivation.

2. Scope of Population and Sample

Phase 1 Study components of learning motivation of upgrading to college students.

There are 5 Experts consisting of academics, educators, and principals, evaluation the suitability of components and indicators of learning motivation of upgrading to college students.

Phase 2 Study of the existent condition, desired condition and Priority needs index of learning motivation of upgrading to college students in Baise University, Guangxi, China.

1) Population includes 840 upgrading to college students in Baise University, Guangxi, China.

2) The sample group includes 271 upgrading to college students in Baise University, Guangxi, China. Obtained by random sampling technique.

Phase 3 Construct an approach to develop learning motivation of upgrading to college students in Baise University.

1) Experts 5 persons consisting of academics, educators, and principals, by interviews about the principles, and methods for developing learning motivation of upgrading to college students.

2) Experts 5 persons consisting of academics, educators, and principals, evaluation the suitability and feasibility the approach to enhance learning motivation of upgrading to college students.

Conceptual Framework

In this research, the researcher Documents from various academics related to learning motivation components were studied. Approach elements learning motivation development model changes and the process of developing learning motivation. To serve as a conceptual framework for research as follows:

1. Components of Learning Motivation

The study was conducted through analysis and synthesis of academic documents including Варганова Ирина Ивановна (2022), Norhisyam Jenal (2022), Ambros Leonangung Edu (2021), Zou Min (2023), Huang Zhi (2017) and Herpratiwi & Tohir (2022). Components of Learning Motivation were: 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution and 5) External influence.

2. Principles of Learning Motivation Development through the ARCS Model

The concept of ARCS Motivation Model under Keller (1983), Wang Yaokang(2021), Zhou Min, Xu Bizao(2021) and Xue Mei(2021) consists of 4 components: 1)Attention, 2)Relevance, 3)Confidence, 4)Satisfaction.

3. An approach of Learning Motivation Development

The study conceptual was from Keller J. M. (2009), Sanchai Wongwiwatthanakit(2015), Sun Lijun(2017), Zhao Wanjun(2023), Qin Jiayu(2021), Wu Yuqi(2023), Lu Juan, LiWeihong(2022) and Ma Wei-Jun(2020). The researcher can

conclude that Principles used in developing learning motivation of upgrading to college students come in 28 approaches: 1) Experience, 2) Present Worth, 3) Future Usefulness, 4) Need Matching, 5) Modeling, 6) Choice, 7) Incongruity, Conflict, 8) Concreteness, 9) Variability, 10) Humor, 11) Inquiry, 12) Participation, 13) Learning Requirements, 14) Difficulty, 15) Expectations, 16) Attributions, 17) Self-Confidence, 18) Natural Consequences, 19) Unexpected Rewards, 20) Positive Outcomes, 21) Negative Influences, 22) Scheduling, 23) Learning Requirements, 24) Expectations, 25) Need Matching, 26) Present Worth, 27) Future Usefulness, 28) Variability.

4. Components of approach to develop Learning Motivation

The researcher studied documents from Gagne, R. M. (2005), Hughes, Ginnett, and Curphy (2009), Kolb, D. A. (2014), Stake, R. E. (2005), Creswell, J. W. (2014), Patton, M. Q. (2015) and Babbie, E. R. (2015), Banks, J. A. (2015), Patton, M. Q. (2015), Yin, R. K. (2018). In conclusion, the approach was the following components: 1) Principles 2) Objectives 3) Content 4) Development process and 5) evaluation. From the theoretical framework used in the research, the researcher conducted a study and summarized it into a theoretical framework.

5. Process of developing an approach to enhance Learning Motivation

The researcher studied documents from Kirkpatrick, D. L. (1998), Gagne, R. M. (2005), Hughes, Ginnett, and Curphy (2009), Kolb, D. A. (2014), Stake, R. E. (2005), Creswell, J. W. (2014), Patton, M. Q. (2015) and Babbie, E. R. (2015), Banks, J. A. (2015), Patton, M. Q. (2015), Yin, R. K. (2018). In conclusion, the program has the following processes: 1) Study components and indicators, 2) Study current states and desire states, 3) Design an approach to develop learning motivation and evaluate the approach.

In this research, the researcher studied it based on the following framework in Figure 1:

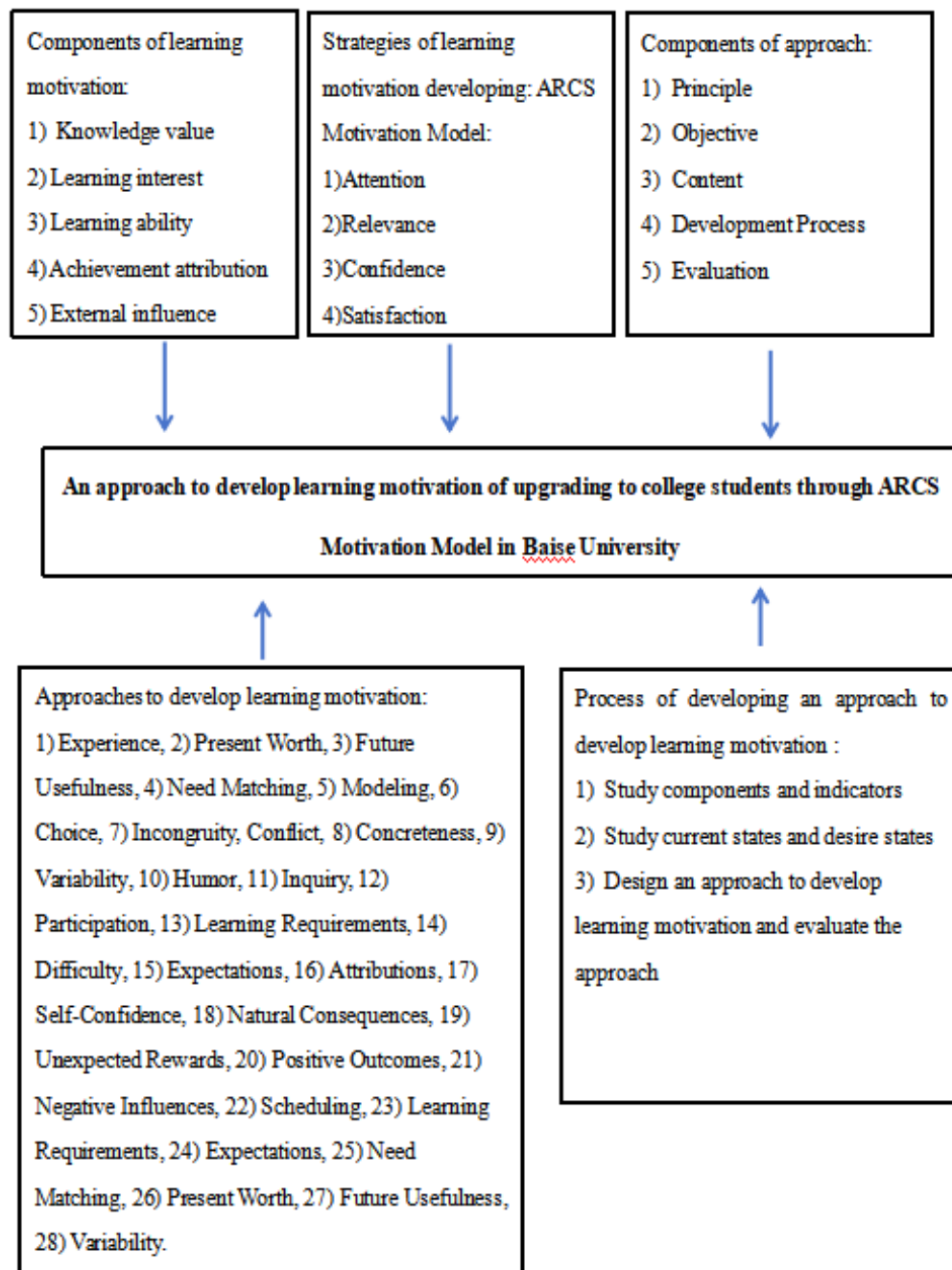


Figure 1 Theoretical Framework Research
Definition of Terms

1. Upgrading to college students refers to the students who progress from the specialist (higher vocational education) stage to the undergraduate level by various means. In the Chinese education system, this process allows students who have completed their junior college studies and obtained corresponding academic

qualifications to gain admission to undergraduate studies through examinations or other assessment methods, in order to improve their academic and professional abilities.

2. Learning motivation refers to the psychological state in which individuals participate in learning activities. This state is driven by personal desires, needs, interests or goals, and encourages individuals to choose to learn, devote energy and continue to study activities. The intensity and direction of learning motivation directly affect the individual's learning attitude, learning behavior and learning effectiveness.

3. Learning motivation of upgrading to college students refers to diversified, and different students may have different motivation combinations. Understanding these motivations can help educational institutions and teachers better support and guide higher education students so that they can remain highly motivated and efficient in the learning process. The learning motivation of upgrading to college students include the following 5 components:

3.1 Knowledge value refers to the views, evaluations and beliefs held by individuals or societies about knowledge itself. This includes Intrinsic value, Practical value, social contribution value, Self-actualization value, Lifelong learning value. Knowledge values not only reflect an individual's attitude towards learning and education, but also reflect the overall importance of knowledge and learning in a society or culture.

3.1.1 Intrinsic value of knowledge refers to the value of knowledge itself independent of its practical application or direct results. This value is measured not in terms of the economic benefits, social status, or ability to solve practical problems that knowledge can bring, but in terms of its ability to enrich one's understanding and enhance one's ability to think and view the world. The intrinsic value of knowledge emphasizes the importance of learning and exploration, even if these activities do not necessarily lead directly to tangible results or immediate applications. The intrinsic value of knowledge emphasizes the importance of education and learning, not just for

the acquisition of job or vocational skills, but as a way of life in pursuit of deeper understanding and meaning.

3.1.2 Practical value of knowledge refers to the application ability of knowledge in practical life, and its contribution to solving specific problems, improving efficiency, creating economic value and social welfare. Different from the intrinsic value of knowledge, which focuses on the value of knowledge itself, practical value pays more attention to how knowledge is used to achieve specific and practical purposes and effects. The practical value of knowledge emphasizes the close link between knowledge and practice, and encourages the translation of theoretical knowledge into practical actions and results to promote personal, social and economic development.

3.1.3 Social contribution value of knowledge refers to the contribution that knowledge makes to the overall well-being, progress and development of society. This value is not only reflected in economic growth and technological innovation, but also in the positive impact on cultural, moral, political and social structures. The social contribution value of knowledge emphasizes that knowledge is not only the embodiment of individual wealth and ability, but also the cornerstone of the overall progress and well-being of society. Through education, research and knowledge dissemination, societies can achieve more equitable, inclusive and sustainable development.

3.1.4 Self-actualization value of knowledge refers to the process of acquiring and applying knowledge to realize one's potential, enhance one's self-understanding, and reach the highest state of personal growth and development. The self-actualization value of knowledge emphasizes that individuals through learning and the application of knowledge can not only achieve external success and achievement, but more importantly achieve internal growth and satisfaction. This value holds that knowledge is not only a means to achieve some external goal, but also the key to realizing one's highest potential and the meaning of life.

3.1.5 Lifelong learning value of knowledge refers to the importance and benefits of continuously acquiring and updating knowledge throughout an individual's life course. This value holds that learning should not be limited to the schooling stage, but is an ongoing, lifelong process aimed at continuously improving one's abilities, adapting to social changes, achieving one's personal goals and improving the quality of life. The value of lifelong learning is that it not only focuses on the application of knowledge and skills in the profession, but also emphasizes the importance of personal development, social participation and adaptation to future changes. On this basis, lifelong learning becomes a key way to realize individual potential, promote social progress, and address future challenges.

3.2 Learning interest refers to an individual's mental state of curiosity, involvement and enthusiasm for the learning activity itself. This interest is derived from the content itself or the satisfaction of the learning process. Interest in learning makes individuals willing to invest time and energy to explore and learn. It includes Subject interest, Exploration and discovery interest, Interest in practical application, Interest in cooperative learning, Interest in self-directed learning.

3.2.1 Subject interest refers to an individual's curiosity, passion, and preference for a particular subject or area of knowledge. This interest can be a preference for any subject such as science, mathematics, literature, art, history, and it is an intrinsic motivation for individuals to tend to explore and learn about certain specific topics. Subject interest not only affects individual learning motivation and learning style, but also significantly affects learning effect, academic achievement and future career choice. Subject interest is an important part of individual learning motivation, it not only affects the learning process and effect, but also closely related to personal career development and life satisfaction. Therefore, understanding and developing subject interests is crucial for both educators and learners.

3.2.2 Exploration and discovery interest refers to the individual's curiosity and pursuit of unknown areas, new knowledge, new skills or new experiences.

This interest drives people to explore the unknown, seek new information and experiences, and solve problems and innovate. The interest in exploration and discovery is not limited to academic or scientific fields, it can encompass all aspects of life, including art, culture, technology, nature and society. The interest in exploration and discovery is an important part of an individual's intrinsic motivation, which is not only essential for individual learning and growth, but also a key force driving social progress and innovation. Cultivating and sustaining this interest has profound implications for both individuals and society.

3.2.3 Interest in practical application refers to an individual's passion and preference for applying theoretical knowledge, skills, or concepts to practical situations to solve problems, create new things, or improve existing conditions. This interest is not only reflected in the love of learning, but more importantly, reflected in the desire and ability to translate the knowledge into practical action. An individual's interest in practical applications can inspire them to explore how knowledge works in the real world and how personal goals and social contributions can be achieved through practical activities. Interest in practical application is a key factor in education and career development, it promotes the integration of knowledge and practice, helps individuals achieve the transformation from theory to practice, and thus plays an important role in personal growth and social contribution.

3.2.4 Interest in cooperative learning refers to an individual's passion and preference for learning, discussing, and solving problems with others in a team or group environment. This interest reflects an individual's recognition of the value of social interaction, shared knowledge, mutual support and mutual growth. Cooperative learning not only facilitates the acquisition of knowledge and skills, but also enhances the development of communication, collaboration, critical thinking, and social skills. The interest in cooperative learning is an important part of the educational process, which not only contributes to the acquisition of knowledge and the development of skills, but also facilitates the socialization process of the individual and prepares students to enter the wider social and professional world. By fostering an interest in collaborative

learning, students can be provided with a supportive and supportive learning environment that promotes their overall development.

3.2.5 Interest in self-directed learning refers to the individual's enthusiasm and preference for independent exploration, active learning and self-education. This interest reflects the individual's ability and desire to acquire knowledge and skills without external coercive guidance, relying on their own motivation, resources, and strategies. The interest in self-directed learning emphasizes the initiative, autonomy and responsibility of learners as key factors in lifelong learning and personal development. An interest in self-directed learning is of great significance for an individual's career development, personal growth and adaptation to social changes. In the knowledge economy and the rapidly changing social environment, developing the interest and ability of self-directed learning has become the key to lifelong learning and success for everyone.

3.3 Learning ability refers to the belief and assessment of one's ability to complete learning tasks and achieve learning goals. This perception affects an individual's learning motivation, learning behavior, and persistence in the face of learning challenges. The sense of learning ability is a specific application of the concept of self-efficacy in psychology in the field of education, which emphasizes the subjective judgment and confidence level of individuals on their own learning ability. It includes Self-efficacy, Time management ability, Learning strategy use ability, Adaptive learning ability, Self-monitor and reflect ability. The sense of learning ability is a key psychological factor in the individual learning process, which has a direct and profound influence on the learning effect. By understanding and enhancing the sense of learning ability, learners can be helped to participate more effectively in the learning process and improve learning achievement.

3.3.1 Self-efficacy refers to the confidence and belief that an individual can successfully perform a certain task (i.e. learning) or achieve a certain

learning goal. Self-efficacy involves an individual's assessment of their own ability to learn, that is, a person's belief in their ability to organize and perform the actions required to achieve a particular learning achievement. Self-efficacy is a key factor in individual psychological development and behavior, and is of great significance in promoting learning, work and personal development. By understanding and improving self-efficacy, individuals can better realize their potential and achieve their goals.

3.3.2 Time management ability refers to the ability of individuals to effectively plan and control their own time allocation in order to efficiently and effectively complete learning tasks and objectives. This includes identifying and prioritizing the most important study tasks, setting realistic study goals, rationalizing study time, and tips and strategies for avoiding time wastage. Time management skills are one of the key factors for personal and professional success. Time management skills are not innate, but can be gradually developed and improved through practice and learning. Mastering time management skills can help individuals use their time more effectively to achieve their potential and goals.

3.3.3 Learning strategy use ability refers to the ability of individuals to effectively select, apply, evaluate and adjust various learning strategies in the learning process to improve learning efficiency and results. This ability covers the understanding of different learning strategies, the selection of the best strategy for the learning task at hand, and the process of adjusting the strategy according to the learning effect. The ability to use learning strategies is a key component of individual self-directed learning and lifelong learning, which is crucial for improving learning effectiveness and adapting to changing learning needs. The cultivation of the ability to use learning strategies is a continuous process, which requires the individual to try, evaluate and adjust constantly in practice to achieve the best learning effect.

3.3.4 Adaptive learning ability refers to the ability of individuals to effectively adjust their learning strategies, methods and behaviors in the face of new information, different environments or changing situations to achieve the best learning

results. This ability involves the ability to quickly absorb new knowledge, flexibly apply existing knowledge to solve problems, and adjust learning methods according to changes in the learning environment. Adaptive learning is the key to continuous growth and success in a rapidly changing modern society. Adaptive learning is the key to staying competitive and achieving personal development in a rapidly changing world. Through continuous learning and self-improvement, individuals can improve their adaptive learning ability and better cope with various challenges in life and work.

3.3.5 Self-monitor and reflect ability refers to the ability of individuals to continuously observe, evaluate and adjust their own behaviors, emotions, thoughts and learning processes. This ability enables individuals to identify their strengths and weaknesses, understand and analyze their behavior patterns and learning habits, and make corresponding adjustments to improve efficiency and effectiveness. The ability to self-monitor and reflect plays a vital role in personal growth, learning and career development. The ability to self-monitor and reflect is a key component of individual self-management and lifelong learning, and with ongoing practice and application, individuals can achieve greater success and satisfaction in their personal and professional lives.

3.4 Achievement attribution refers to the process by which individuals account for their experiences of success or failure, i.e. how individuals attribute their academic performance or achievements to specific causes. The concept derives from the Attribution Theory, developed by the psychologist Heider and further developed by Weiner, which focuses on how individuals interpret their own and others' actions and their outcomes. It includes Effort attribution, Ability attribution, Task difficulty attribution, Luck attribution, Situation attribution.

3.4.1 Effort attribution refers to the extent to which individuals attribute their success or failure in learning to personal effort. Effort attribution, as an internal attribution, emphasizes individual control and responsibility. Individuals are

more likely to feel pride and satisfaction when they believe their achievements are due to their own efforts; Conversely, if failure is attributed to not trying hard enough, the individual may feel motivated to increase efforts in anticipation of future success. This type of attribution has important effects on individuals' motivations, emotional responses and future behavior choices. Effort attribution is an important psychological mechanism for individual self-regulation and self-improvement. Cultivating and strengthening this kind of attribution can promote individual's positive behavior and mental health.

3.4.2 Ability attribution refers to an individual's ability or intelligence to attribute the outcome of his or her own or others' actions (such as success or failure in learning). Ability attribution means that an individual believes that the reason for achievement or performance comes primarily from his or her own inherent abilities, such as intelligence, skills, or talent. Ability attribution is an important perspective to understand how individuals interpret the results of their own and others' behaviors, and it has a profound impact on individual self-esteem, motivation and behavior choice. By cultivating a growth mindset, individuals can have a healthier view of abilities and efforts, facilitating personal learning and development.

3.4.3 Task difficulty attribution refers to the level of difficulty at which individuals attribute their success or failure in learning to the task itself. This attribution category involves an individual attributing results to external factors rather than their own ability or effort. In this attribution model, individuals believe that the successful completion or failure of a task is directly related to the difficulty of the task itself, but has little to do with the individual's internal qualities (such as intelligence, effort, etc.). By understanding task difficulty attribution and its impact on individual behavior and emotion, individual learning and development can be more effectively supported, especially in educational and work Settings.

3.4.4 Luck attribution refers to the fact that individuals attribute their learning success or failure to luck or chance rather than to individual abilities,

efforts, or external conditions. This type of attribution attributes the cause of an outcome to factors outside the individual's control. Luck attribution emphasizes the unpredictability and randomness of outcomes, with individuals believing that achievement or failure has nothing to do with their own behavior or traits, but is determined by lucky or unlucky chance. While luck attribution can explain an individual's success or failure in some circumstances, over-reliance on luck attribution can hinder an individual's growth and development. Therefore, the cultivation of positive attributions is of great significance for individual self-development and achievement.

3.4.5 Situation attribution refers to the fact that individuals attribute their own or others' actions and outcomes to external environmental or situational factors rather than individual traits or behaviors. This type of attribution holds that an individual's behavior and achievement are significantly influenced by external situations and environmental conditions, and have little to do with the individual's intrinsic qualities or degree of effort. In order to promote individual self-development and adaptability, it is important to cultivate a balanced approach to attribution that takes into account both individual and situational factors. This balanced perspective helps individuals to more fully understand the causes of behavioral outcomes, thereby more effectively addressing challenges and promoting personal growth.

3.5 External influence refers to the external factors that affect learning motivation, which come from learners' environment and social background, including Teacher's support, Classmate interaction, School culture, Societal expectations and values, Family environment. These factors can directly or indirectly affect the learner's motivation level and promote or hinder the learning process. These external factors influence learners' motivation through different pathways and mechanisms, and understanding these factors is of great significance for creating supportive learning environments, designing effective teaching strategies, and promoting students' active learning.

3.5.1 Teacher's support refers to the help, encouragement and resources that a teacher's competence, encouragement, feedback and personalized attention can provide to students in their learning and personal development. This support can be emotional, academic or social and aims to create a positive and encouraging learning environment that helps students overcome their learning difficulties, stimulates their learning interests and potential, and promotes their overall development. Teacher support is considered to be one of the key factors affecting students' learning effectiveness, motivation and adaptability to school. Teacher's support plays a vital role in students' academic achievement, emotional development and social adjustment, and is one of the key factors in promoting students' all-round development.

3.5.2 Classmate interaction refers to the behavior and process that students provide support, help and encouragement to each other in study and life. This mutual assistance can involve the interpretation of academic content, the sharing of learning strategies, the provision of emotional support, and the encouragement and assistance given in the face of difficulties and challenges. Peer support is based on cooperation and mutual respect among peers and is an important part of the school education environment to promote student learning and personal development. Classmate interaction not only contributes to students' academic growth, but also plays an important role in their emotional development and social skills improvement, and is an indispensable part of the educational process.

3.5.3 School culture refers to a set of shared values, beliefs, traditions, customs, norms of behavior and ways of communication formed in a specific school environment. It includes not only the official rules and regulations of the school and educational objectives, but also the attitudes, values, behavioural patterns and learning climate displayed by teachers, students and other school members in their daily interactions. School culture has a profound influence on students' learning attitude, academic achievement, social behavior and teachers' teaching style and career

satisfaction. School culture is one of the key factors in the success of the school, which affects every member of the school and the overall atmosphere of the school. By fostering and maintaining a positive school culture, students can be provided with an environment conducive to learning and growth.

3.5.4 Societal expectations and values refer to the degree to which society values education and the values of a particular subject can influence students' motivation to learn. Although social expectations and values are two different concepts, they are interrelated and influence each other. Values form the basis of social expectations, which reflect generally accepted values in a particular cultural and social context. At the same time, by adhering to social expectations, individuals and groups express identification with and support for these values. With the development of society and cultural changes, values and social expectations will also change, reflecting the dynamic and diverse nature of society.

3.5.5 Family environment refers to the fact that family expectations, support and availability of learning resources have a significant impact on students' learning motivation. Family environment has a profound impact on the growth, development and well-being of individuals, especially in the areas of mental health, social skills, learning ability and value formation of children and adolescents. Family environment is the cornerstone of individual development. By providing a warm, supportive and encouraging family environment, it can promote the healthy growth and all-round development of family members, especially children and adolescents.

4. ARCS Motivation Model refers to a motivational model proposed by Professor Keller after integrating motivation-related concepts and theories. This model covers four elements: attention, reference, confidence and satisfaction, and each element contains a more detailed subset of homogeneous concepts. It provides a theoretical basis for analyzing learners' motivational characteristics, adjusting motivational strategies, and motivating learning autonomy.

4.1 Attention refers to the primary dimension of ARCS motivation model, and it is also one of the most important factors to produce students' learning motivation. The attention has the direction and the centrality", generally people's curiosity is easily aroused by the novel thing, the teacher should consider how to attract and maintain the student's attention when designing the teaching plan.". If it is simply to stimulate the attention of students, cannot be sustained for a long time, the learning effect will be reduced. In teaching and learning practice, it is equally important to stimulate and maintain students' attention. Before the event, it is necessary to arouse students' attention and make them participate in learning activities.

4.2 Relevance refers to the second dimension in the ARCS motivation model. The so-called firsthand, refers to the content of learning and teaching to students with the original knowledge in mind to establish a link, through the things related to their own firsthand, it is easier to attract students' attention. When a learner realizes that what he is learning now can help him to solve his present or future difficulties, he will relate his needs to the goals he wants to achieve, in order to stimulate learning motivation according to students' interest self-selection of learning activities, make students believe that their activities and personal goals are closely related, and can meet the specific needs of students.

4.3 Confidence refers to more indicative of students' attitudes toward learning. Some students are afraid of what they are learning, and their self-confidence is damaged and they cannot learn effectively. If students are encouraged and satisfied by their teachers and peers in teaching or learning activities, it can enhance students' self-confidence and encourage them to be more confident in their later learning. Professor Kyle believes that learning is a long-term process of accumulation and that in order for students to learn better, they need to keep their confidence. In addition to positive feedback, students should also conduct a comprehensive attribution, not only the success of the factors and factors of failure, for failure, should be a correct view of gain and loss, in failure to find reasons, try to avoid similar situations in the future.

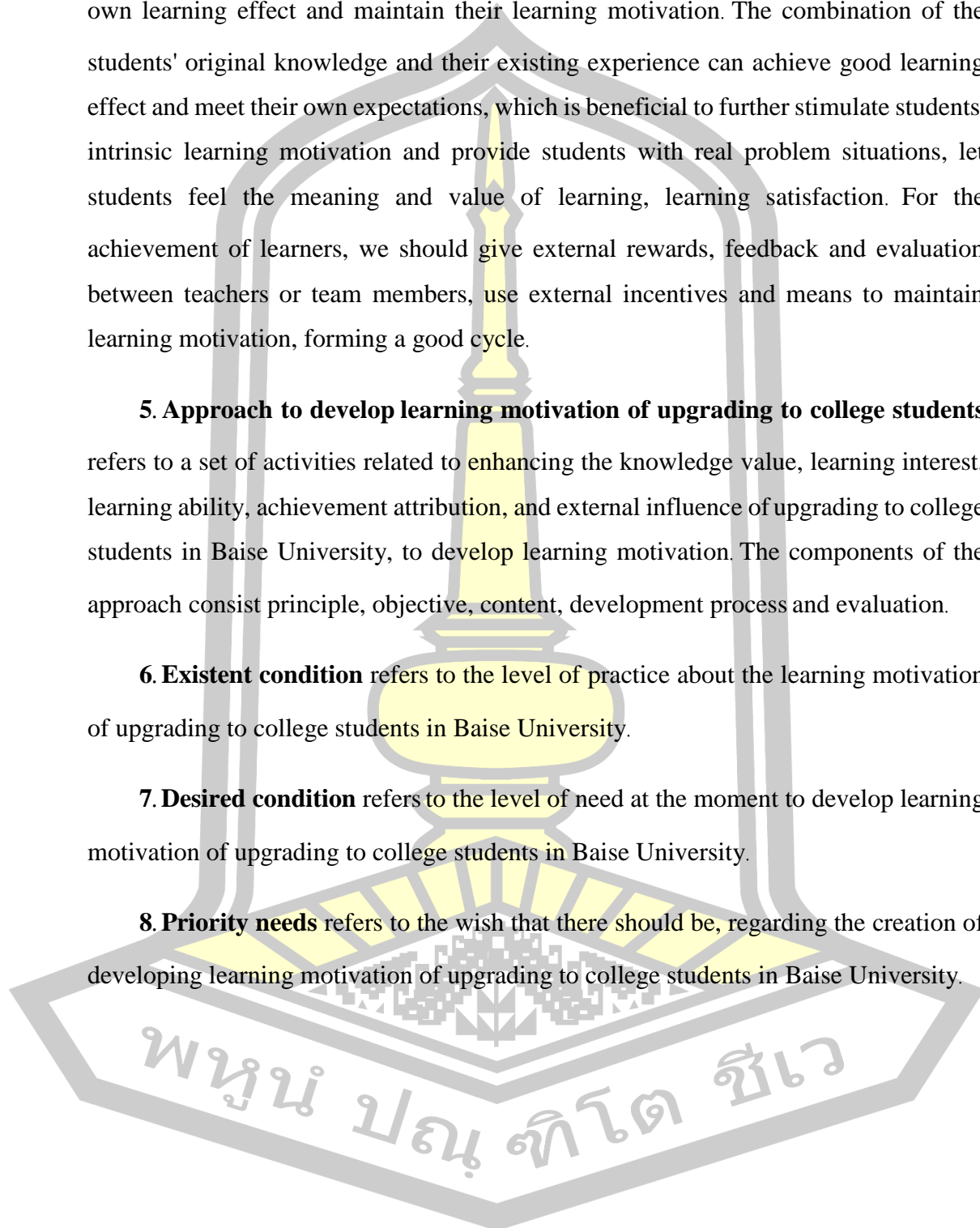
4.4 Satisfaction refers to one of the important factors for students to test their own learning effect and maintain their learning motivation. The combination of the students' original knowledge and their existing experience can achieve good learning effect and meet their own expectations, which is beneficial to further stimulate students' intrinsic learning motivation and provide students with real problem situations, let students feel the meaning and value of learning, learning satisfaction. For the achievement of learners, we should give external rewards, feedback and evaluation between teachers or team members, use external incentives and means to maintain learning motivation, forming a good cycle.

5. Approach to develop learning motivation of upgrading to college students refers to a set of activities related to enhancing the knowledge value, learning interest, learning ability, achievement attribution, and external influence of upgrading to college students in Baise University, to develop learning motivation. The components of the approach consist principle, objective, content, development process and evaluation.

6. Existent condition refers to the level of practice about the learning motivation of upgrading to college students in Baise University.

7. Desired condition refers to the level of need at the moment to develop learning motivation of upgrading to college students in Baise University.

8. Priority needs refers to the wish that there should be, regarding the creation of developing learning motivation of upgrading to college students in Baise University.



CHAPTER II

LITERATURE REVIEW

This chapter provides a review of the literature and body of knowledge, which provides a framework for the current research. It includes a review of different conceptualizations of structures, an overview of empirical research findings, and a conceptual basis for current research. The outline of the literature review is as follows:

1. Learning Motivation

1.1 Definition of Motivation

1.2 Motivation Theory

1.2.1 Motivator-Hygiene Theory

1.2.2 McClelland's Need Theory

1.2.3 Hierarchy of Needs

1.2.4 X Theory & Y Theory

1.2.5 Expectancy Theory

1.2.6 Equity Theory

1.3 The meaning of Learning Motivation

1.4 Learning Motivation Theory

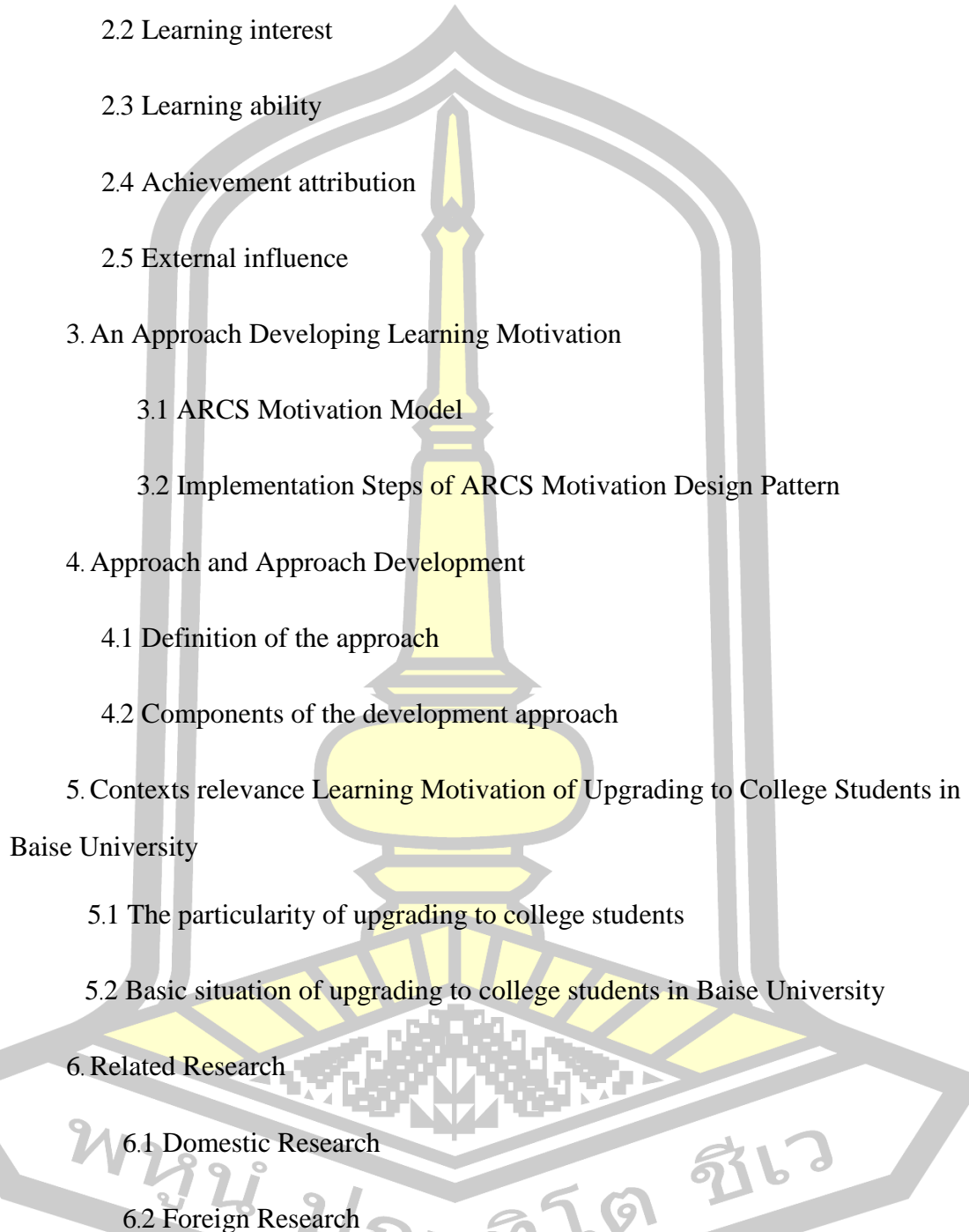
1.4.1 Instinct Motivation Theory

1.4.2 Behavioral Motivation Theory

1.4.3 Cognitive Motivation Theory

1.4.4 Maslow's Hierarchy of Needs

2. Components of Learning motivation

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- 2.1 Knowledge value
 - 2.2 Learning interest
 - 2.3 Learning ability
 - 2.4 Achievement attribution
 - 2.5 External influence
 - 3. An Approach Developing Learning Motivation
 - 3.1 ARCS Motivation Model
 - 3.2 Implementation Steps of ARCS Motivation Design Pattern
 - 4. Approach and Approach Development
 - 4.1 Definition of the approach
 - 4.2 Components of the development approach
 - 5. Contexts relevance Learning Motivation of Upgrading to College Students in Baise University
 - 5.1 The particularity of upgrading to college students
 - 5.2 Basic situation of upgrading to college students in Baise University
 - 6. Related Research
 - 6.1 Domestic Research
 - 6.2 Foreign Research

Principles, concepts, theories of Learning Motivation

Motivation

Psychology usually refers to the individual's behavior of interacting with the external environment in order to meet the needs of social life or internal psychological

tendency, and the psychological tendency or internal motivation to make the direction of action towards a certain goal as motivation.

Wudworth (1918) first applied motivation to psychology, and it is considered to be the internal motivation that determines behavior. Motivation has three characteristics: the first feature: excitation, that is, to promote the existence of certain needs of the individual to produce a specific behavior of internal psychological tendency; The second feature: orientation, which promotes the development of individual behavior in the direction that can satisfy the internal psychological tendency, this feature is also called orientation; The third feature: maintenance and regulation, that is, the intensity and direction of the behavior is adjusted, and the probability of the behavior is strengthened until the goal is reached.

Maslow (1943) developed his famous hierarchy of needs theory, which argues that human motivation is based on satisfying a series of hierarchical needs, from basic physiological needs to the need for self-actualization.

Hall (1943) put forward the theory of drive reduction, which believes that motivation originates from the driving force generated by biological needs, and the purpose of behavior is to reduce this driving force and restore physiological balance.

In summary, from studying the meaning of motivation, it can be concluded that motivation refers to the internal forces and external factors that drive an individual towards a target behavior. Motivation explains why an individual acts in a particular way.

Motivation is often defined as a mental process that affects the direction, intensity, and persistence of an individual's behavior. It involves not only the individual's inner desire to pursue a specific goal, but also the influence of external environment on individual behavior.

Motivation Theory

1. Motivator-Hygiene Theory

Herzberg (1959) proposed "Motivator-Hygiene Theory", he divided the relevant factors in the enterprise into two types, namely incentive factors and health factors. Motivating factors refer to the factors that can satisfy and motivate people. Health factors are those that tend to generate opinions and negative behaviors. He believes that these two factors are the main factors affecting employee performance. The core of the two-factor theory is: "Only motivating factors can bring people satisfaction, and health factors can only eliminate people's dissatisfaction, but will not bring satisfaction." The essential difference between health care factor and incentive factor lies in the difference between "equality factor" and "fairness factor". All equality must be health care, it must be given basic satisfaction but difficult to fully meet; Whatever is just must be inspired and should be advocated and implemented.

2. McClelland's Need Theory

David McClelland (1961) developed "The Three Needs Theory", refers to a method of classifying needs from the categories of outcomes that people want to achieve. They believe that individuals have three main motivations or needs in the work situation, including achievement, entitlement, and belonging, but the proportion of these needs is different for each person.

Need for Achievement refers to the need to meet standards, pursue excellence, and strive for success. McClelland found that some people have a strong drive to do things better, to be more efficient, and to be more successful, but they seek personal fulfillment rather than the rewards that come with success. The drive McClelland refers to is the need for achievement. McClelland also believes that high-achievers prefer a work environment where they can be independently responsible and receive feedback and take a moderate amount of risk. In this environment, they can also be highly motivated.

Need for Power is the desire to influence or control others and not be controlled by others. People with high power needs like to "take responsibility" and prefer a competitive and status-oriented work environment.

Need for Affiliation belong is the desire to establish friendly and intimate relationships. People with high belongingness need desire friendship, prefer a cooperative rather than competitive environment, and want to communicate and understand each other.

3. Hierarchy of Needs

Maslow (1954) proposed "The Hierarchy of Needs". He divides people's needs from low to high into five levels: physiological needs, safety needs, social needs, respect needs and self-actualization needs. Maslow's hierarchy of needs theory plays an important role in modern behavioral science. Maslow's hierarchy of needs theory is one of the five pillars of interpersonal theory, group dynamics theory, authority theory, hierarchy of needs theory and social measurement theory in management psychology.

4. X Theory & Y Theory

Douglas McGregor (1957) developed the theory of "X Theory & Y Theory". Theory X holds that people are negative and must be carefully managed and supervised. Theory Y states that people are positive, capable of self-direction and self-expression control. X Theory & Y Theory is the two extremes of human nature. The assumption of human nature, as the understanding basis of management thoughts and management concepts, directly determines the leadership mode of managers. X Theory & Y Theory similar to the theory of sexual evil and the theory of sexual good. Chinese ancient scholar Xunzi is the representative of the evil theory of nature, he thought that the nature of people "good profit and evil harm", "so there will be a teacher of law, the way of etiquette and justice, and then out of resignation, in line with literature and science, and ascribe to governance", advocated the importance of post-natal education. Mencius, a scholar in ancient China, is the representative of the theory of good nature. He argued that "at the beginning of man, nature is good."

Based on Maslow's Hierarchy of Needs, Douglas MacGregor summarized X Theory & Y Theory. Theory X corresponds to physiological and security needs, and Theory Y corresponds to emotions and needs of belonging, respect, and self-actualization. After 1959, Maslow put forward Z theory based on X Theory & Y Theory, and the five-level demand theory was upgraded to six-level demand theory, adding the need for self-transcendence, from considering individual to considering the motivating effect of superpersonal value, existential value or cosmic value. It is assumed that man has the need and the spirit of self-sacrifice for a purpose greater than himself.

5. Expectancy Theory

Victor H.Vroom (1964) proposed Expectancy Theory. According to this theory, people's motivation or effort at work (motivational force) is the product of titer and expected value, i.e. Motivational force (M) = $T(V) \times$ expected value (E).

Titer refers to the value of the goal to meet the needs of the individual, that is, the degree to which the goal is important to the individual. Expectation refers to the estimate of the probability that an individual can successfully complete the work, that is, the probability that the work goal can be achieved.

6. Equity Theory

John Stacey Adams'(1965) Equity Theory mainly reveals how people judge whether they are treated fairly, which is of great significance for establishing a fair distribution mechanism and exploring the measures of talent retention.

According to J.S. Adams, the employee's motivation depends on the degree to which he feels distributive justice (i.e. the sense of fairness), and the employee's sense of fairness depends on a social or historical comparison. The so-called social comparison refers to the comparison between the employee's remuneration (including material money, welfare and spiritual importance, recognition and awards, etc.) and his own work input (including his own education, experience, time, energy and other

consumption for work, etc.) and the ratio of the remuneration and input of others. A historical comparison is an employee's comparison of the ratio of his remuneration to his input into his work with that of himself at a certain point in history.

Learning Motivation

Learning motivation refers to a kind of internal process or internal psychological state in which an individual arouses learning activities to meet the needs of pursuing knowledge and adjusts the intensity of learning activities to guide the achievement of learning goals. In the study life, the intensity of students' learning motivation will affect students' learning desire and learning behavior. In addition, students with strong learning motivation are usually more attentive to lectures, take the initiative to acquire knowledge, and their learning time can be maintained for a longer time, which is not easy to be disturbed by other factors.

But it's important to note that more motivation doesn't necessarily make learning better. According to the optimal motivation theory of Yerks-Dodson Law (1908), every activity task has its optimal motivation level, which depends on the content and nature of the activity task. In general, the level of optimal motivation for completing a difficult task is lower than that for a simpler task, and the level of optimal motivation for completing a simpler task is higher. In addition, the inappropriate level of motivation will have an impact on work efficiency.

The concept of "learning motivation" is developed from the concept of "motivation". Therefore, learning motivation is the performance state of motivation at the learning level. It is a tendency or internal psychological state in which learners feel the value of learning through learning activities, conduct self-regulation, are willing to take the initiative to learn, and strive to get the expected results of learning (Qin Jiayu, 2021). On this basis, many Chinese scholars have studied the concept of learning motivation. The representative views of scholars are as follows in table:

Scholar	Year	Concept definition
Yan Guocai	1991	An internal process and state of mind in which students are learning.
Gu Mingyuan	1991	Learning motivation is a kind of internal motivation that comes from its own needs and can stimulate, regulate, maintain or stop learning activities.
Zhang Chunxing	1998	The internal mental activity that causes and maintains students' learning activities and makes them develop towards the goals set by the teacher.
Zhang Yaling	2000	The combination of individual goals and external incentives, the two work together to form the motivation to stimulate and maintain the learning behavior.
Feng Zhongliang	2002	It stimulates the individual to carry out learning activities, maintains the learning activities that have been caused, and makes the individual learning activities towards a certain learning goal as an internal starting mechanism.
Tian Lan, Pan Weigang	2006	It is a virtual or real reason to motivate college students to learn.
Wan Wei	2006	Learning motivation refers to an internal process or internal psychological state that stimulates the individual to carry out learning activities, maintain the learning activities that have been caused, and guide the behavior towards a certain learning goal.

Table 1 Conceptual summary of learning motivation (Qin Jiayu, 2021)

To sum up, Chinese scholars define the concept of learning motivation from three directions. Direction one, based on the causes of learning behavior (own needs), the concept of learning motivation is defined; The second direction is to define the concept of learning motivation based on the purpose of achieving a certain goal. The third direction is to define the concept by combining demand and incentive. However, most scholars define learning motivation as an internal process or internal psychological state that stimulates students to carry out learning activities and achieve certain learning goals.

Learning Motivation Theory

Because different researchers have different interpretations of learning motivation, a variety of different motivation theories have emerged. Learning motivation can be divided into four categories: the first category: the instinctual wheel motivation based on evolution; The second category: behavioral motivational view based on the concepts of stimulus, response, reinforcement, punishment, etc. The third category: the cognitive motivational view related to the satisfaction of cognitive needs; The fourth category: the theory of human motivation which argues that human's inner potential is a process of realization through education. The details are as follows:

1. Instinct Motivation Theory

Instinct theory explains the causes of human behavior as human instinct. American psychologist William James (1890) explained human instinct as a kind of impulse, and attributed people's "imitation" and "sociability" and other behaviors in social life to human instinct, and believed that a variety of social life styles were caused by impulse, expanding the scope of instinct. At that time, many psychologists were influenced by James and put forward many different instinctive explanations for human behavior. However, there are many people who have raised a lot of questions about instinct, they believe that if every human action can find a corresponding instinct, then it can be

assumed that the real motive is not found. The main point of doubt is that the boundary between instinctive and learned behavior is not clear.

2. Behavioral Motivation Theory

Behaviorist theorists, Watson, John Broadus(1913) pay more attention to the concepts of reinforcement, punishment, stimulation, and demonstration, and associate them with the causes of learning or the explanation of behavior, and divide motivation theories into two categories: drive theory and reinforcement theory. Those who adhere to the drive theory believe that the behavior of an organism is first caused by internal or external stimuli, and then the direction of behavior is determined according to its existing experience basis or existing behavioral habits, such as learning. Those who adhere to the reinforcement theory believe that the occurrence of an individual's behavior is related to the external stimulus it receives, and the reinforcement given after the occurrence of the behavior can increase the possibility of the individual's future occurrence of the behavior. Because of its emphasis on the stimulation of external reinforcement, that is, the promotion of external incentives, it is also called incentive theory.

3. Cognitive Motivation Theory

With the rise of modern cognitive theory, from the early mechanical view to the cognitive view, the study of motivation has appeared a turning point, and with the continuous improvement of cognitive view, a series of cognitive motivation theories have been formed.

3.1 Achievement Motivation Theory

Achievement motivation refers to the inner driving force that people take the initiative to meet the challenges and strive for excellent results when they think things are useful to them. In other words, the internal motivation for people to want the best when they complete a task. (David C McClelland, 1950)

3.2 Attribution theory

Attribution theory refers to the process by which people analyze the causes of a certain behavior in themselves or others and explain why such behavior occurs. From the perspective of cognition, B. Weiner (1972) combined the expectation theory of F. Heider (1958) and the achievement motivation theory, successfully explained the motivation of people's behavior, and proposed a theoretical system of attribution. B. Weiner divided the factors affecting success and failure into ability, effort, task difficulty, physical and mental state, luck and other six factors, and structurally divided his attribution theory into three dimensions: control point, stability and controllability.

3.3 Cognitive Dissonance Theory

L. Festinger (1957), an American social psychologist, put forward the theory of cognitive dissonance, which mainly describes the psychological theory of the process of human attitude change. Cognitive dissonance theory refers to the unpleasant psychology that occurs when one's views and beliefs are out of harmony with one's actions.

3.4 Self-efficacy Theory

Self-efficacy, proposed by Albert Bandura (1977), is an individual's subjective speculation or judgment of his or her ability to complete a task. Bandura divides expectations into "performance expectations" and "results expectations." Outcome expectation is an individual's prediction of the outcome of his or her behavior, and he or she activates or chooses a certain behavior according to the predicted result. For example, if students think that taking notes in class will help them complete their homework, then they will take notes in class. Efficacy expectation refers to an individual's speculation or judgment on whether he or she is competent for a certain job or task. If he or she can be sure that he or she is competent for the job or task, he or she will have a higher sense of self-efficacy and actively complete the task. For example, when students are sure that they can understand what the teacher is saying and get good grades, they will pay attention to the class. In addition, Bandura pointed out that students

are regulated by self-efficacy in the learning process, which determines whether students engage in certain learning activities or behaviors and becomes a decisive factor in promoting students' learning.

4. Maslow's Hierarchy of Needs

Maslow (1943) put forward the hierarchy of needs theory. He stressed the role of needs when explaining motivation, and believed that all actions of people have their own meaning, different people have different needs, and needs change with time and other factors. Maslow divides human needs into seven categories: physiological needs, the most basic survival needs; Security needs, are low-level needs; The needs of love, belonging and respect belong to the higher level needs; The need of cognition belongs to high level demand; Aesthetic needs, high level needs; The need for self-actualization, high level needs. These seven needs are arranged in a "pyramid" shape from lower to higher, and only after the lower needs are satisfied can the higher needs arise. Figure 2 is obtained.

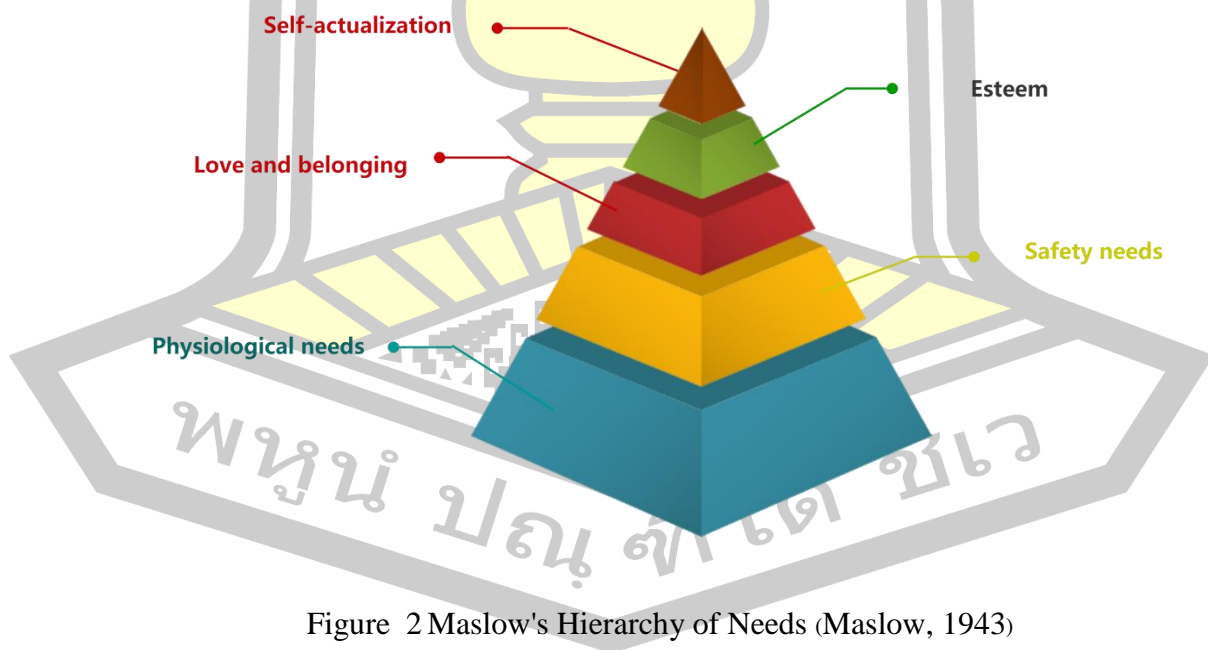


Figure 2 Maslow's Hierarchy of Needs (Maslow, 1943)

Maslow's hierarchy of needs theory has important application value in teaching. For example, when teachers understand students with abnormal behaviors, they should

first start from the physiological needs and safety needs to see whether they are satisfied, so as to help teachers find the root cause of students' abnormal behaviors and solve students' problems. Another example, for students with strong self-esteem and competitive performance, teachers can stimulate students' confidence in learning through praise and other positive ways in teaching. When criticizing and educating such students, pay attention to their self-esteem and educate them on the basis of respect.

Components of Learning Motivation

A search on CNKI titled "Learning motivation of upgrading to college students", found that there is no direct research in China at present, and the relevant literature mainly focuses on the motivation of English, medicine and other specific professional courses. Studies on students' learning motivation include primary school students, junior high school students, senior high school students, college students and master's students, but there are few studies on students upgrading to college.

Вартанова Ирина Ивановна (2022) explores the age and gender characteristics of the relationship between emotional reflection by high school students on school life values and their awareness of the reasons for schooling (motivations). It found significant differences in the emotional-motivational factors and motivations between students of different sexes and ages, highlighting how the coordination of emotional and verbal levels of attitude towards school life values is influenced by the type of dominant motivation for learning activity.

Norhisyam Jenal (2022) investigates how the value, expectancy, and affective components form students' learning motivation during the COVID-19 pandemic. It found that students reacted positively in all three components, with extrinsic goal orientation, control beliefs for learning, and test anxiety being particularly notable. The study discusses pedagogical implications and future research directions.

Ambros Leonangung Edu (2021) explores the learning motivation phenomenon among elementary school students, focusing on achievement drive, discipline, readiness to overcome difficulties, and curiosity. It reveals that students generally have

high motivation but lack concrete actions showing their enthusiasm for learning, primarily due to extrinsic motivation.

Zou Min (2023) selected the students majoring in pre-school education as the research objects and investigated by means of questionnaire survey. Through investigation and research, we can find out the problems existing in the learning of students majoring in preschool education, such as the learning status quo and the change of learning motivation. In this regard, the article puts forward some measures such as guiding students to establish a correct learning view, setting up mutual aid groups, improving teachers' teaching level, etc., in order to stimulate students' learning motivation and promote the improvement of learning quality of preschool education students.

Huang Zhi (2017) uncovering how classroom climate influences students' learning motivation is important for understanding how to create supportive classroom environments focusing on learning. The current study used regression analysis techniques to test a model explaining the impact of classroom climate on self-efficacy and learning motivation. The sample consisted of 208 students of the business school of B University. The findings suggest that (1) classmate relation and teacher support have significant positive influence on learning motivation (learning interesting, self-development, social connections, and external expectations); (2) self-efficacy has full mediating effect on the relationship between classmate relation and learning motivation; (3) self-efficacy has partial mediating effect on the relationship between teacher support and learning motivation.

Herpratiwi & Tohir, A. (2022) aims to determine the influence of learning interest and discipline on learning motivation among university students. It found that both learning interest and discipline significantly influence learning motivation, suggesting that student motivation can be increased by fostering interest and discipline.

Liu Wenwen, et al. (2024), in order to explore the relationship among general self-efficacy, learning motivation and career maturity, 750 senior high school students were investigated by general self-efficacy questionnaire, middle school students' learning motivation questionnaire and middle school students' career maturity scale. The results show that there is a significant positive correlation between general self-efficacy, learning motivation and career maturity. General self-efficacy not only directly predicts individual career maturity, but also indirectly influences career maturity through learning motivation. Learning motivation plays a partial mediating role between general self-efficacy and career maturity.

Chen Shanyong (2023) based on Maslow's hierarchy of needs theory, analyzes the current situation of college students' needs and the reasons for their insufficient learning motivation. Starting from the student body, we explore ways of education suitable for contemporary college students, caring for their needs, providing family and campus conditions for their development and growth. Respect students' ideas, through the goal of motivation, to help students continue to enhance their learning self-confidence, stimulate continuous learning motivation.

Xie Ni, et al. (2024), based on the survey data of the teaching quality of postgraduate courses, there are obvious differences in the learning behaviors of postgraduate students with different learning motivations, and the basic characteristics such as gender, degree and subject category also affect the learning behaviors of postgraduate students with different learning motivations. Postgraduates with intrinsic learning motivation have more active, focused and dedicated learning behaviors, while postgraduates with external learning motivation have weaker learning behaviors. Among them, the reflection and critical behavior of learning is the weak point of all graduate students' learning behavior, especially for doctoral students; The values of learning behaviors of female graduate students are slightly lower than those of male students, especially reflective and critical behaviors.

Jiang Zhen, et al. (2024) through a total of 2170 students in Beijing, Chongqing, Shandong and Shanxi were investigated by using the Motivation and Participation Scale and the adaptation Scale to understand their learning motivation and participation. In order to promote students' academic development and help them better adapt to the complex and changing learning environment in the intelligent era, it is suggested that schools, teachers and parents form a joint force, through multi-channel guidance, cultivate students' positive learning motivation, enhance students' learning engagement and learning adaptability, and improve learning results.

Yuan Pinghua, et al. (2023) to explore the influence of the online and offline "golden course" teaching mode of college English based on the subject-content-based Language teaching concept (CBI) on students' English learning motivation and autonomous learning ability. It is found that this teaching model advocates the CBI teaching concept, provides students with the required subject knowledge and challenging learning tasks, stimulates students' learning interest, improves students' English learning motivation and independent learning ability, and improves the quality of college English teaching.

Fu Zhengling (2022) based on the literature statistics of college English learning motivation published in CSSCI source journals and Chinese core journals in the new century (2001-2021), the research on College English learning motivation in the new century has made achievements in four aspects: This paper refines the basic types and research dimensions of college English learning motivation, puts forward the regulation strategies of college English learning motivation, clarifies the development rules of college English learning motivation, and constructs a theoretical system of native English learning motivation. But at present, the study of college English learning motivation in the new century also faces four difficulties, such as the dispute over the orientation of the research object, the bottleneck of theoretical innovation, the lack of fund support, and the formation of a stable team.

On the basis of comprehensive analysis of Chinese and foreign literature, experts and scholars on the composition factors of learning motivation, the most used 11 variables are selected for research, as shown in Table 2:

Variable \ Scholar	Варганова Ирина Ивановна, 2022	Norhisyam Jenal, 2022	Ambros Leonangung Edu, 2021	Zou Min, 2023	Huang Zhi, 2017	Herpratiwi & Tohir, A., 2022	Liu Wenwen, et al, 2024	Chen Shanyong, 2023	Xie Ni, et al, 2024	Jiang Zhen, et al, 2024	Yuan Pinghua, et al, 2023	Fu Zhengling, 2022	Score
External influence				√	√			√	√	√	√	√	7★
Goal orientation				√				√					2
Own needs							√	√					2
Achievement attribution		√	√	√	√			√	√		√	√	8★
Sense of responsibility				√		√				√			3
Learning discipline			√			√							2
Knowledge value	√	√		√	√		√		√	√	√	√	9★
Critical thinking									√			√	2
Learning interest	√			√	√	√	√		√		√	√	8★
Learning ability				√	√		√	√	√	√	√	√	8★
Emotional state	√					√							2

Table 2 The components of learning motivation

According to the summary of 5 components, we can sort out the components of learning motivation as 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution, 5) External influence. In addition, the following sections describe the 5 components in the literature and identify the key components to enhance the learning motivation of upgrading to college students.

Knowledge value

Knowledge value refers to the views, evaluations and beliefs held by individuals or societies about knowledge itself.

Li Shuilan, et al. (2023) took Hunan Peasant University students as the investigation objects, standardized scale was used to investigate their learning motivation, self-efficacy and learning harvest. SPSS25.0 was used for data analysis, and through descriptive analysis, difference significance test and mediation effect test, it was found that: rural college students had a higher level of learning harvest, their independent learning ability was promoted as the primary harvest, their learning motivation was higher than that of general open education learners, and their self-efficacy was higher than the theoretical value. There are significant differences in the learning harvest, learning motivation and self-efficacy of rural college students in age, learning time and occupation. There is a significant correlation between learning motivation, self-efficacy and learning harvest of rural college students. Learning motivation and self-efficacy have a significant positive impact on learning harvest of rural college students. Self-efficacy plays an intermediary role between learning motivation and learning harvest of rural college students.

Chi Dexia, et al. (2023) based on the self-determination theory, this paper studies the seat preference and learning motivation of 115 undergraduate students majoring in polymer materials and engineering in the basic course of mechanical design from different variables such as psychological front and back, physical front and back, gender, and high-low interaction area. The results show that both boys and girls are more motivated by internal factors than by external factors, and girls' learning relative autonomy index and academic performance are higher than boys'. The relative autonomy index and academic performance of students in the front row are higher than those in the back row, and the motivation of learning is driven by internal factors than external factors. The results of students in the high interaction area were higher than those in the low interaction area.

Gong Yunmeng, et al. (2023), in order to improve the learning quality of college students' online learning, literature research method and questionnaire survey method are adopted to investigate the status quo of college students' online learning based on the existing adult learning motivation scale, and explore college students' online learning motivation. SPSS 22.0 was used to make statistics and analysis of the survey results, and factor analysis was used to extract five common factors, and five dimensions of college students' online learning motivation were obtained, namely, self-cognition and interest, self-improvement and development, curriculum and teaching arrangement, social relations and external influences. Finally, from the three perspectives of learners, educators and online platforms, the paper puts forward the motivation strategy of college students' online learning motivation.

Wu Yuqi (2023) through the study of motivation decline, the overall situation and influencing factors of Chinese learners' motivation decline in the context of the epidemic are understood, so as to reduce the negative impact of learners' motivation change. And he thinks that intrinsic value, practical value, occupational value, cultural understanding value and lifelong learning value have important influence to learning motivation.

Ma Linchong (2023) based on the ARCS motivation model, this paper proposes strategies to stimulate the motivation of college students to learn ideological and political courses by stimulating and cultivating their correct learning motivation, arousing students' attention, enhancing students' personal relevance, stimulating students' self-confidence and making students obtain study satisfaction.

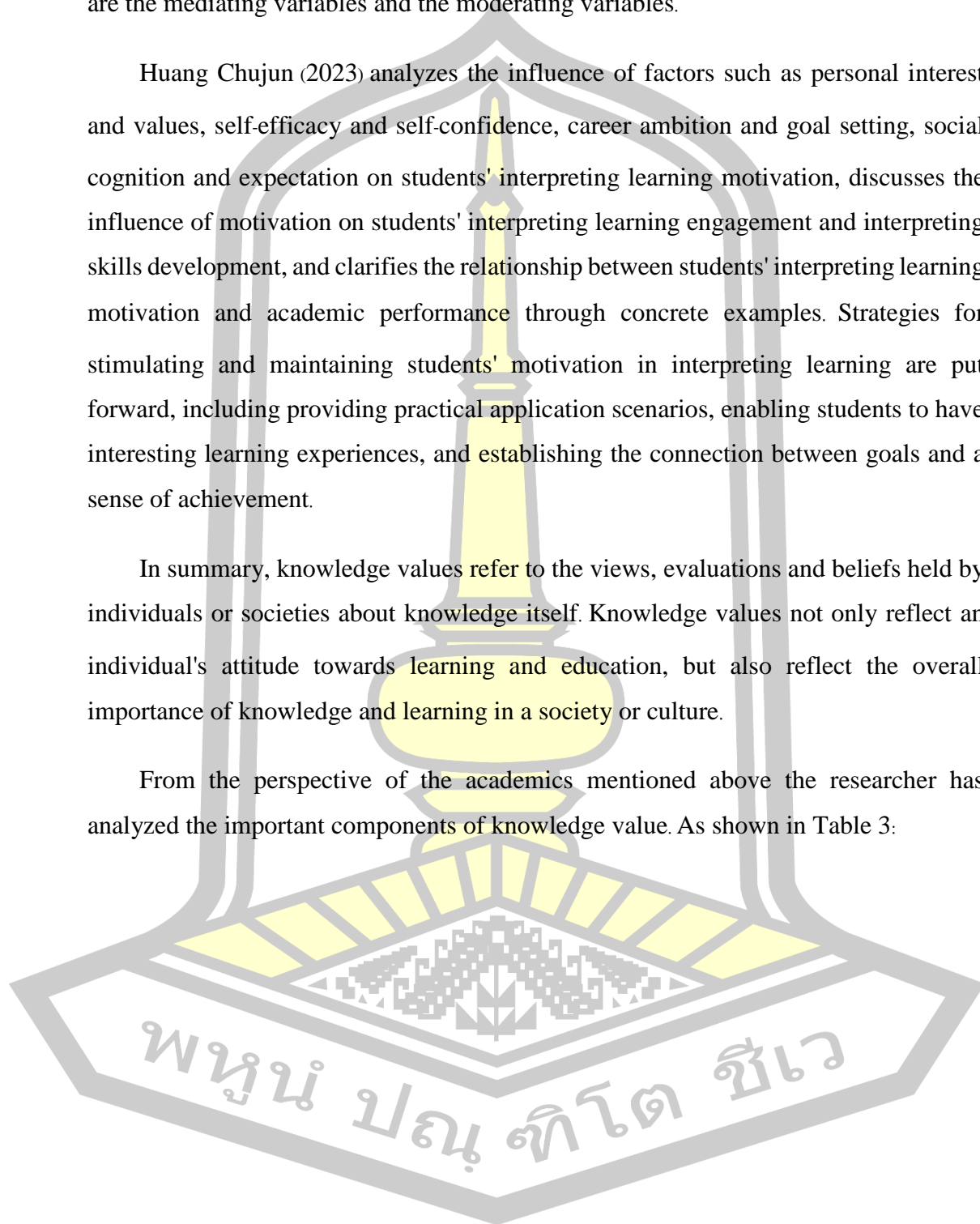
Qin Jiayu (2021) by referring to relevant domestic and foreign literature on learning motivation, learning engagement, scientific research innovation ability and tutor autonomy support, the self-determination theory and learning engagement theory are cited as the theoretical basis of the research, relevant research hypotheses are proposed, and learning motivation and scientific research innovation ability are constructed as

independent and dependent variables. Learning engagement and tutor autonomy support are the mediating variables and the moderating variables.

Huang Chujun (2023) analyzes the influence of factors such as personal interest and values, self-efficacy and self-confidence, career ambition and goal setting, social cognition and expectation on students' interpreting learning motivation, discusses the influence of motivation on students' interpreting learning engagement and interpreting skills development, and clarifies the relationship between students' interpreting learning motivation and academic performance through concrete examples. Strategies for stimulating and maintaining students' motivation in interpreting learning are put forward, including providing practical application scenarios, enabling students to have interesting learning experiences, and establishing the connection between goals and a sense of achievement.

In summary, knowledge values refer to the views, evaluations and beliefs held by individuals or societies about knowledge itself. Knowledge values not only reflect an individual's attitude towards learning and education, but also reflect the overall importance of knowledge and learning in a society or culture.

From the perspective of the academics mentioned above the researcher has analyzed the important components of knowledge value. As shown in Table 3:



Component \ Scholar	Li Shuilian, et al., 2023	Chi Dexia, et al., 2023	Gong Yunneng, et al., 2023	Wu Yuqi, 2023	Ma Linchong, 2023	Qin Jiayu, et al., 2021	Huang Chujun, 2023	Score
Intrinsic value	√	√		√	√	√	√	6★
Practical value	√	√	√	√	√	√	√	7★
Occupational value		√		√		√		3
Social contribution value	√	√	√		√	√	√	6★
Cultural understanding				√				1
Self-actualization value	√	√	√		√		√	5★
Moral and ethical values					√			1
Lifelong learning value	√		√	√		√	√	5★

Table 3 The components of Knowledge value

According to the conclusion of these researchers, there are 5 indicators of knowledge value: 1) Intrinsic value, 2) Practical value, 3) Social contribution value, 4) Self-actualization value and 5) Lifelong learning value. These are important factors for educators to motivate students' learning motivation. The meaning of every indicator:

1) Intrinsic value refers to the student's interest and satisfaction in the content itself, such as curiosity about scientific exploration or appreciation of literary works.

2) Practical value refers to students' understanding that learning can help them solve problems or improve the quality of life in real life.

3) Social contribution value refers to the students' belief that they can contribute to society through learning, such as solving social problems through scientific research.

4) Self-actualization value refers to students seeing learning as a way to

realize their personal potential and pursue their personal interests.

5) Lifelong learning value refers to students' recognition that Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world.

Learning interest

Learning interest refers to an individual's mental state of curiosity, involvement and enthusiasm for the learning activity itself.

Lu Juan, et al. (2022), in order to grasp the level of learners' learning motivation, learning performance and the influence of general demographic factors on them, the research group took the people who participated in online learning of vocational education as an example, and conducted a survey of 10,000 people through the simple assessment scale of learning motivation. The results show that the intensity level of learning motivation of the respondents is mainly moderate motivation, and the main influencing factors are Activity interest, Subject interest, Exploration and discovery interest, Interest in problem solving, practical application, cooperative learning, competition and achievement, Techniques and tools, and self-directed learning.

Zhao Yiting (2023) thinks that students experienced an uptick in their personal skills, learning became more interesting and challenging, and they began to relate their learning to practical applications, recognizing the importance of knowledge and skills for future career development.

Jacob Filgona (2020) points out that motivating learners to learn is related to curriculum implementation. This is because motivation is an influential factor in the teaching context. Since modern education is compulsory, teachers cannot take learners' motivation for granted, and they are responsible for ensuring that learners' motivation is maintained. This task - understanding and therefore influencing learner motivation - is the main thrust of this paper. In order to ensure that the aims and objectives of the course are achieved, it is necessary to stimulate students' interest in subjects, curriculum

activities and cooperative learning, interest in applying knowledge to problem solving and practice, and interest in self-directed learning.

Chen Xiaokun, et al. (2023) based on the investigation of 18 hybrid courses such as Animal Anatomy in Huazhong Agricultural University, a model of influencing factors of learner satisfaction was constructed. The perceived course quality and self-efficacy significantly affect learner satisfaction; Learning community, information technology, self-efficacy and teacher factors significantly affect the perceived curriculum quality; Information technology significantly affects self-efficacy.

Ma Chuanyu (2023) finds that Subject interest, Exploration and discovery interest, Interest in practical application and competition and achievement are important factors to promote students' perfectionism, stimulate their academic enthusiasm and improve their learning motivation as an intermediary.

Zhao Wanjun (2023) thinks that learners' self-differences affect individual cognition (including reduced self-efficacy, negative emotions and emotions, and lack of learning goals), and ultimately reduce the value of learners' learning expectations, which leads to the decline of learning motivation.

Tao Jinhong (2023) through means of quantitative research, 75 students from 5 classes in the preparatory department of a university were surveyed to analyze the reasons for the decline in learning motivation of preparatory students and the relationship between the types of learning motivation and Chinese acquisition. The results show that internal motivation is the strongest motivation and its change has the greatest influence on Chinese acquisition. It includes factors such as Subject interest, Exploration and discovery interest, Interest in practical application, Interest in cooperative learning, Interest in interdisciplinary learning and Cultural and global perspectives of interest.

In summary, learning interest refers to an individual's mental state of curiosity, involvement and enthusiasm for the learning activity itself. This interest is derived from

the content itself or the satisfaction of the learning process. Interest in learning makes individuals willing to invest time and energy to explore and learn.

In view of Learning interest, the researchers have integrated the components of learning interest through literature and related research, as shown in Table 4:

Scholar Component	Lu Juan, et al, 2022	Zhao Yiting, 2023	Jacob Filgona, et al, 2020	Chen Xiaokun, et al, 2023	Ma Chuanyu, 2023	Zhao Wanjun, 2023	Tao Jimhong, 2023	Score
Activity interest	√		√	√				3
Subject interest	√	√	√	√	√	√	√	7★
Exploration and discovery interest	√	√		√	√	√	√	6★
Interest in problem solving	√	√	√					3
Creative expression of interest		√						1
Interest in practical application	√	√	√	√	√		√	6★
Interest in cooperative learning	√		√	√		√	√	5★
Interest in competition and achievement	√		√		√			3
Interest in interdisciplinary learning				√			√	2
Techniques and tools of interest	√			√				2
Interest in self-directed learning	√	√	√	√		√		5★
Cultural and global perspectives of interest						√	√	2

Table 4 The components of Learning interest

According to the conclusion of these researchers, there are 5 indicators of learning interest: 1) Subject interest, 2) Exploration and discovery interest, 3) Interest in practical application, 4) Interest in cooperative learning, 5) Interest in self-directed learning. These

interests are important factors for educators to motivate students' learning motivation.

The meaning of every indicator:

- 1) Subject interest refers to student's interest in a particular subject or area of knowledge, such as mathematics, science, literature, etc.
- 2) Exploration and discovery interest refers to the interest in the exploration and discovery of new knowledge, new skills and new concepts.
- 3) Interest in practical application refers to an interest in applying learned knowledge to real situations and solving real problems.
- 4) Interest in cooperative learning refers to an interest in learning with others, sharing knowledge, and solving problems collaboratively.

Interest in self-directed learning refers to students' interest in self-selecting learning objectives and resources and learning at their own pace.

Learning ability

Learning ability refers to the belief and assessment of one's ability to complete learning tasks and achieve learning goals.

Qiao Yuhan (2022) investigates the current situation of learning motivation and autonomous learning ability of English learners in a province. The results show that the students have higher classroom learning motivation and strong independent learning ability. There is a significant positive correlation between self-efficacy and intrinsic value in motivation and the two dimensions of autonomous learning.

Li Xuejie (2023) through the quantitative research method of questionnaire survey, 128 college students were investigated on the decline of English learning motivation. The results show that the decline of English learning motivation of college students is generally at a moderate level, and the main factors leading to the decline of motivation include the decline of self-efficacy, insufficient time management ability, improper use of learning strategies, and weak information processing ability. In addition, the ability

of communication and cooperation, reflection and emotional regulation also need to be strengthened.

Zeng Yujie, et al. (2022) on the basis of theoretical analysis and literature analysis, this paper uses linear regression analysis and structural equation model to analyze the five main influencing factors of master students' autonomous learning, including learning motivation, learning strategy, learning environment, self-efficacy and goal setting. Learning environment has a positive and significant impact on learning motivation, learning strategy and goal setting, learning motivation and learning self-efficacy feel the positive and significant impact on goal setting, and learning self-efficacy has a positive and positive impact on learning strategy.

Huang Wenzhe, et al. (2023) uses exercise self-efficacy scale, learning motivation scale, flow experience scale and technical learning involvement scale, 551 college students in Guangdong Province were investigated to test the mediating effect of variables. The results showed that: 1) There were significant positive correlations among exercise self-efficacy, learning motivation, flow experience and technical learning engagement; 2) Exercise self-efficacy positively affects technical learning engagement; 3) Learning motivation and flow experience play a mediating role between exercise self-efficacy and technical learning engagement respectively, and the chain mediating role between learning motivation and flow experience is also significant.

Ren Qin, et al. (2023) thinks that learning motivation drives learners to choose effective learning methods, and motivation research inspires teachers to explore the cultivation and training of motivation strategies. Teachers should strengthen the cultivation of learners' motivation strategies, cultivate learners' interest in learning itself and intrinsic motivation to participate in learning activities, and better stimulate learners' learning desire and potential to achieve the best learning results.

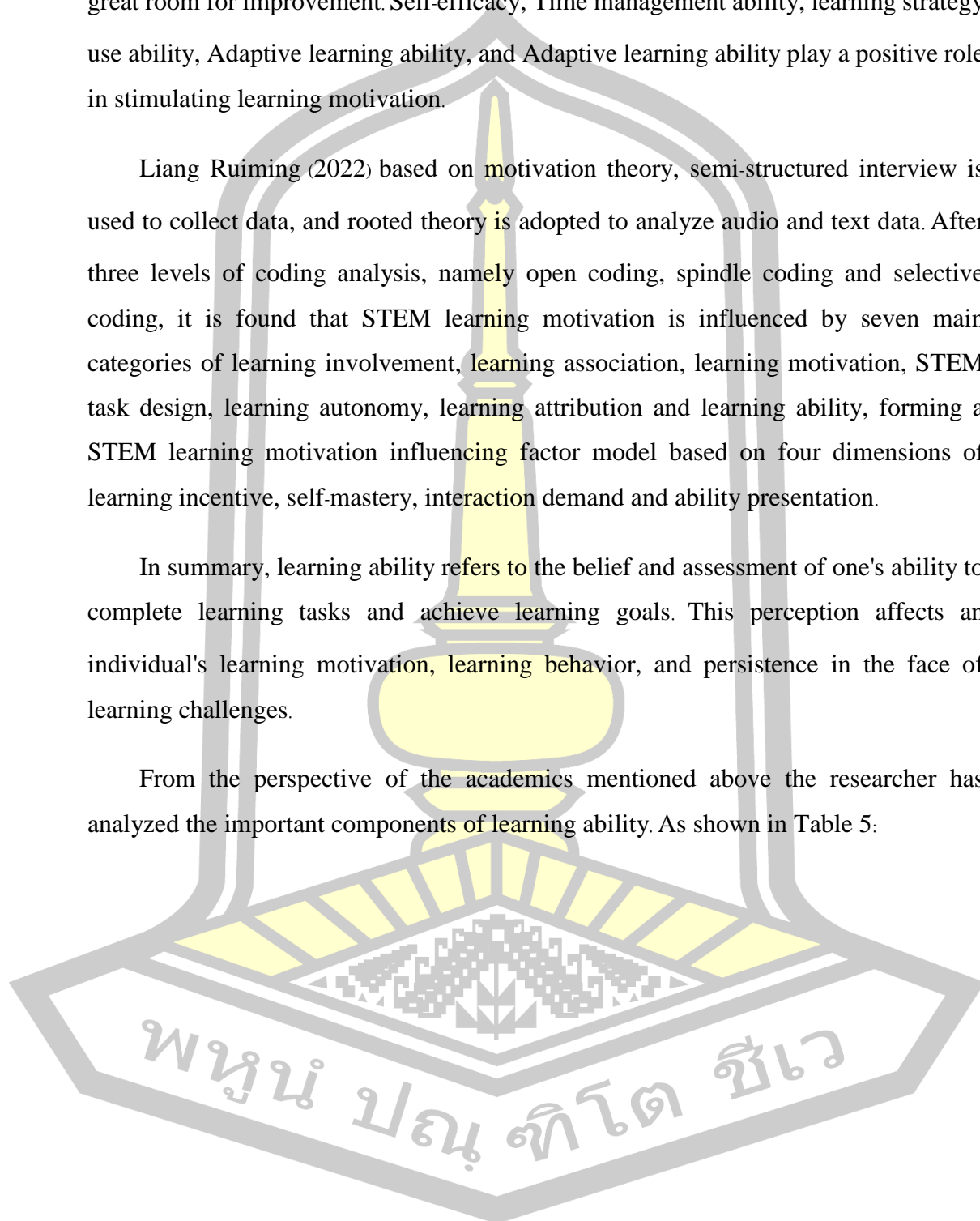
Gong Xiaofei, et al. (2023) finds that the present situation of students' learning motivation and the influence of their learning ability on their learning motivation were

investigated by questionnaire. The results show that students' learning motivation has great room for improvement. Self-efficacy, Time management ability, learning strategy use ability, Adaptive learning ability, and Adaptive learning ability play a positive role in stimulating learning motivation.

Liang Ruiming (2022) based on motivation theory, semi-structured interview is used to collect data, and rooted theory is adopted to analyze audio and text data. After three levels of coding analysis, namely open coding, spindle coding and selective coding, it is found that STEM learning motivation is influenced by seven main categories of learning involvement, learning association, learning motivation, STEM task design, learning autonomy, learning attribution and learning ability, forming a STEM learning motivation influencing factor model based on four dimensions of learning incentive, self-mastery, interaction demand and ability presentation.

In summary, learning ability refers to the belief and assessment of one's ability to complete learning tasks and achieve learning goals. This perception affects an individual's learning motivation, learning behavior, and persistence in the face of learning challenges.

From the perspective of the academics mentioned above the researcher has analyzed the important components of learning ability. As shown in Table 5:



Component \ Scholar	Qiao Yuhua, et al, 2022	Li Xuejie, et al, 2023	Zeng Yujie, et al, 2022	Huang Wenzhe, et al, 2023	Ren Qin, et al, 2023	Gong Xiaofei, et al, 2023	Liang Ruiming, 2022	Score
Self-efficacy	✓	✓	✓	✓	✓	✓	✓	7★
Goal setting ability			✓		✓			2
Time management ability		✓		✓	✓	✓	✓	5★
Learning strategy use ability	✓	✓	✓	✓	✓	✓	✓	7★
Information processing capability		✓						1
Critical thinking ability				✓	✓			2
Creative thinking ability							✓	1
Adaptive learning ability	✓		✓	✓	✓	✓	✓	6★
Communication and collaboration skills		✓					✓	2
Self-monitor and reflect ability	✓	✓	✓	✓	✓		✓	6★
Ability to ask for help and use resources				✓		✓		2
Emotional regulation ability		✓	✓		✓			3

Table 5 The components of Learning ability

According to the conclusion of these researchers, there are 5 indicators of learning ability: 1) Self-efficacy, 2) Time management ability, 3) Learning strategy use ability, 4) Adaptive learning ability, and 5) Self-monitor and reflect ability. These abilities are important factors for educators to motivate students' learning motivation. The meaning of every indicator:

1) Self-efficacy refers to students' confidence in their ability to complete specific learning tasks.

2) Time management ability refers to the ability of students to effectively plan and manage their study time.

3) Learning strategy use ability refers to the ability of students to choose and apply effective learning strategies.

4) Adaptive learning ability the ability of students to adapt to new learning environments and challenges.

5) Self-monitor and reflect ability refer to the ability of students to monitor their own learning process and reflect on learning outcomes.

Achievement attribution

Achievement attribution refers to the process by which individuals account for their experiences of success or failure, i.e. how individuals attribute their academic performance or achievements to specific causes.

Zou Yin (2023) thinks that there is a close relationship between students' learning motivation and attribution style. Motivation includes internal motivation and external motivation, as well as task value, learning control and self-efficacy, all of which are negatively correlated with attributional ability and effort, while positively correlated with luck and task difficulty.

Xiao Rong (2017), in his opinion, personal achievement motivation and self-success attribution are particularly important. Previous studies on English learning rarely involved the relationship between college students' achievement motivation and the four factors of success or failure attribution, that is, effort, ability, situation and luck. The relationship between the four factors of success and failure attribution ("ability", "effort", "situation" and "luck") and achievement motivation is as follows: The global regression analysis found that the "effort" factor was positively correlated with

achievement motivation, and the "ability", "situation" and "luck" were negatively correlated with achievement motivation, but the correlation was not significant.

Xie Chunqiu (2019) thinks that students' attribution of learning results directly affects their learning confidence. Academic success and failure are often encountered by college students in their learning activities. Different attribution tendencies will cause different expectations and emotional experiences, and thus produce different learning behaviors. Psychological research has shown that people's attribution tendencies can change. By studying the internal factors such as learning ability and effort level and the external factors such as luck and task difficulty, researchers try to understand the attribution of college students' learning achievement. It has a positive effect on teachers to use the method of education and guidance, help students to make correct and positive attribution, improve learning performance and promote the healthy growth of college students.

Ma Yuge (2023) through the assessment and diagnosis of 242 students, SPSS software was used to explore the influence and relationship between senior high school students' mathematics academic attribution and achievement goal orientation on mathematics academic help-seeking through basic descriptive statistical analysis and bivariate correlation analysis. The results of correlation analysis show that, on the whole, there is a significant positive correlation between mathematics academic achievement attribution and mathematics academic help-seeking attitude. Positive attribution is significantly positively correlated with the benefit and cost of help-seeking, indicating that the more students attribute attribution to positive aspects such as their ability and effort level, the more they will consider the benefits of help-seeking before help-seeking behavior. Negative attribution also has significant positive correlation with help-seeking benefits and help-seeking costs.

Xiong Dandan (2020) points out college students' achievement goal, attribution style and academic self-efficacy are positively correlated, and there is a mutual causal

relationship between them. The attribution of mastering goals and pursuing success will have a certain impact on students' academic self-efficacy. Achievement goal, failure avoidance attribution and students' academic self-efficacy are negatively correlated. In terms of attribution style, there is a positive correlation between success-seeking attribution and students' academic self-efficacy, and a negative correlation between failure avoidance attribution and students' academic self-efficacy. At the same time, there is a mutual causal relationship between success-seeking attribution and failure avoidance attribution and students' academic self-efficacy.

Wang Limin (2023) thinks that there are different factors affecting college students' physical education achievement, which are mainly reflected in ability, effort, task difficulty, luck and external environment.

Zhang Xuemin, et al. (2002) said learning motivation and achievement attribution are closely related. He believes that attributing success to ability and effort and failure to lack of effort is a positive way of attributing. It has a positive promoting effect on individual achievement. Because attributing success to ability creates an individual experience of pride and reinforces expectations of future success; Attributing success or failure to a lack of effort leads individuals to believe that success can be achieved through effort to build confidence in future success and stimulate their intrinsic motivation to learn. Attributing failure to bad luck, lack of ability, or other situational factors is a negative way of attributing. Because attributing failure to lack of ability can lead to emotional experiences of inferiority and shame, lack of confidence in future success, neglect of the role of effort in success, and lack of persistence in the face of difficulties, setbacks, and failures.

In summary, Achievement attribution refers to the process of how individuals attribute their successes or failures in learning, work, or other activities to specific factors. Achievement attribution involves an individual's interpretation and understanding of the reasons for success or failure. By understanding and applying the

principles of achievement attribution, individuals can better understand their own successes and failures, thereby promoting self-growth and improving their ability to face challenges.

From the perspective of the academics mentioned above the researcher has analyzed the important components of Achievement attribution. As shown in Table 6:

Scholar Component	Zou Yin, 2023	Xiao Rong, 2017	Xie Chunqiu, et al, 2019	Ma Yuge, 2023	Xiong Dandan, 2020	Wang Linyin, 2023	Zhang Xuemin, et al, 2002	Score
Time management attribution					√		√	2
Effort attribution	√	√	√	√	√	√	√	7★
Ability attribution	√	√	√	√	√	√	√	7★
Task difficulty attribution	√		√	√	√	√	√	6★
Luck attribution	√		√	√	√		√	5★
Policy use attribution		√				√		2
External help attribution		√		√			√	3
Emotional state attribution	√		√		√			3
Resource availability attribution					√			1
Situation attribution	√	√	√	√		√	√	6★

Table 6 The components of Achievement attribution

According to the conclusion of these researchers, there are 5 indicators of achievement attribution: 1) Effort attribution, 2) Ability attribution, 3) Task difficulty attribution, 4) Luck attribution, and 5) Situation attribution. These types of achievement

attribution are important factors for educators to motivate students' learning motivation.

The meaning of every indicator:

1) Effort attribution refers to the degree to which students attribute achievement success or failure to individual effort.

2) Ability attribution refers to students attributing achievement success or failure to an individual's inherent ability or intelligence.

3) Task difficulty attribution refers to the degree to which students attribute the success or failure of their grades to the difficulty of the task itself.

4) Luck attribution refers to students attributing success or failure in their grades to chance factors or luck.

Situation attribution refers to the fact that students attribute achievement success or failure to supportive and disruptive factors in the learning environment.

External influence

External influence that affects students' learning motivation refer to various conditions and environmental factors from the outside of students, which affect the formation and change of students' learning motivation by influencing their mental state and behavior.

Yin Qi (2023) through deeply exploring the factors that affect students' participation and learning motivation, as well as the importance and strategies of improving students' participation and learning motivation, this paper provides theoretical support and practical guidance for optimizing physical education in colleges and universities. He believes that the influencing factors mainly include teaching methods, classmate, curriculum content, teachers' attitudes, societal expectations, policy and school environment. Among them, the attitude and skills of teachers and the relevance and attractiveness of the curriculum content are particularly critical.

Jin Qiu (2023) taking 405 public security college undergraduates as an example, the empirical investigation shows that learning motivation and learning participation significantly positively affect the formation of professional identity; The exploration of

individuals, the shaping of family atmosphere and the support of public opinion are conducive to the formation of healthy internal and external motivations. Learning participation plays an important role in the transformation of learning motivation into professional identity. The guidance of school environment and institutional guarantee can help students actively participate in the learning process and carry out beneficial career exploration in it, thus forming a stable professional identity.

Gao Ruixia (2023), under the background of "five education simultaneously", in order to stimulate students' learning motivation, extra-curricular learning groups are created to promote the development of students' "intelligence", lay a foundation for the development of "five systems of moral education, intellectual education improvement, physical education integration, aesthetic education edification, labor promotion integration and education", enhance students' sense of competition and collective concept, and cultivate students' self-confidence and ambition. It is of great significance to promote the improvement of students' comprehensive quality and future development.

Esra Meşe (2021) thinks that teacher's support, classmate interaction, school atmosphere, online course content and structure, system, and family environment has a key influence on students' language learning motivation.

Liu Yanan (2023) used questionnaire survey and data analysis to explore the influence of educational psychological factors on students' academic performance in primary education majors, including self-cognition, emotional attitude, interaction and peer relationship, teaching methods and resources. The results show that there is a strong positive correlation between the educational psychological factors, and the influence on students' academic performance is complex and close. Teachers should better understand and apply educational psychological factors, create a supportive learning environment, provide emotional support and mental health services for students, and encourage students to sublimate self-cognition and learning motivation in order to improve academic performance.

Feng Xiaoxiao, et al. (2023) thinks that the factors affecting learning motivation include: utilitarian learning environment, lack of autonomous learning ability, evaluation and feedback mechanisms, learning resources and technologies, societal expectations and values, Economic, and family. According to this, suggestions and strategies to stimulate and improve learning motivation are put forward: strictly implement the talent training mode of "wide entry and strict exit", improve learners' autonomous learning ability and strengthen the construction of learning support service system.

Qiu Zhi (2023) through the single factor analysis on the influence of vocational nursing students' learning motivation, it is concluded that the frequency of perceptive teachers' infiltration of ideological and political content in the teaching process, students' perception of school learning atmosphere, social expectations on students, and whether they actively share housework and participate in school labor in the family have an impact on the learning motivation of vocational nursing students.

Chen Minyu, et al. (2022), under the framework of planned action theory, combined with previous studies on learning motivation and behavior of higher vocational college students, this paper constructs a research model on learning motivation and behavior of higher vocational college students and their influencing factors. Through the empirical research, it is proved that the learning motivation of students in higher vocational colleges is affected by many factors, such as teacher, classmate, school atmosphere, learning resources and technologies, societal expectations, economic and family, and the effect is different.

In summary, External influence refers to those factors that come from an individual's external environment, which can affect an individual's interest in learning, level of engagement, and willingness to continue learning. These factors include not only material resources and environmental conditions, but also psychosocial factors. External factors interact with individual's intrinsic motivation and influence learning behavior and effectiveness together. In order to promote student motivation, educators,

schools, parents and society need to work together to create a positive and supportive learning environment, while encouraging students to develop the ability to self-regulate learning and balance the relationship between extrinsic and intrinsic motivation.

From the perspective of the academics mentioned above the researcher has analyzed the important components of External influence. As shown in Table 7:

Component \ Scholar	Yin Qi, 2023	Jin Qiu, 2023	Gao Ruixia, 2023	Esra Meşe, et al, 2021	Liu Yanan, 2023	Feng Xiaoxiao, et al, 2023	Qiu Zhi, 2023	Chen Minyu, et al, 2022	Score
Teacher's support	√		√	√	√		√	√	6★
Classmate interaction	√		√	√	√			√	5★
School culture	√	√	√	√	√		√	√	7★
Course content and structure	√			√	√				3
Evaluation and feedback mechanisms			√		√	√			3
Learning resources and technologies			√			√		√	3
Societal expectations and values	√	√	√		√	√	√	√	7★
Economic factor		√				√		√	3
Policy and system	√		√	√					3
Family environment		√		√	√	√	√	√	6★

Table 7 The components of External influence

According to the conclusion of these researchers, there are 5 indicators of external influence: 1) Teacher's support, 2) Classmate interaction, 3) School culture, 4) Societal expectations and values, and 5) Family environment. These indicators of external

influence are important factors for educators to motivate students' learning motivation.

The meaning of every indicator:

1) Teacher's support refers to the fact that teacher encouragement, feedback and personalized attention have a significant impact on students' learning motivation.

2) Classmate interaction refers to the cooperative learning, competition and social interaction between classmates that can affect students' interest and engagement in learning.

3) School culture refers to a school's values, expectations, and learning climate that can promote or inhibit students' motivation to learn.

4) Societal expectations and values refer to the degree to which society values education and the values of a particular subject can influence students' motivation to learn.

Family environment refers to the fact that family expectations, support and availability of learning resources have a significant impact on students' learning motivation.

An Approach Developing Learning Motivation

ARCS Motivation Model

ARCS motivational design pattern theory

Learning motivation is one of the important components of the motivational system of students' learning behaviors and plays a key role in motivating, promoting and sustaining students' learning. Keller (1983) listed the 12 most representative theories in the field of motivation as the theoretical basis of the ARCS Motivational Model, and grouped these theories with common characteristics into the same category, and finally divided the 12 theories into two major categories, namely, motive-related constructs and expectancy for success related constructs. A and B in the table represent the above two classifications respectively, that is, a person's motivation is closely related to the value of the behavior itself and the expectation of outcome, which is shown in Table 1.

Therefore, the theoretical basis of the ARCS Model of Motivational Design can be macroscopically called Expectancy-Value Theory, when an individual believes that he or she can achieve a certain goal, or believes that a certain activity has a definite positive value for him or her, he or she will be motivated to achieve the certain goal.

Motives (Related Constructs)	Expectancy for Success (Related Constructs)
Needs Hierarchy (Maslow, 1954)	Locus of Control (Rotter, 1966)
Achievement Motivation (Atkinson, 1974; McClelland, 1976)	Attribution Theory (Weiner, 1974)
Future Orientation and Perceived Instrumentality (Raynor, 1974)	Generalized Expectancy for Success (Fibel & Hale, 1978)
Competence Motivation (White, 1959)	Personal Causation (deCharms, 1976)
Fear of Failure and Anxiety (Atkinson, 1974)	Learned Helplessness (Seligman, 1975)
Reinforcement Value (Rotter, 1972, 1975)	Self-Efficacy (Bandura, 1977)
Curiosity and Arousal (Berlyne, 1965)	

Table 8 Motivational constructs categorized according to an expectancy-value interpretation (Keller, 1979)

In 1987, in order to find a more effective way to understand the main influencing factors of learning motivation, as well as a systematic method to identify and solve the problem of learning motivation, Professor Keller proposed the ARCS motivation model after synthesizing various motivation theories. In the original model, value categories were divided into interest and relevance; Expectations are divided into expectations and

outcomes. Interest refers more to the tonal factors in the environment; Relevance refers more to goal-directed activities; Expectation refers to a person's expectation of success. It involves people's confidence and sense of control over their lives. Outcome refers to the reinforcement value of teaching. In the process of transition from the original model to ARCS motivated design model, its implementation process is defined as definition, design, development and evaluation. In the process of the implementation of this theory, only when the four conditions of attention, personal, self-confidence and satisfaction are satisfied, can students become motivated and keep learning enthusiasm. Therefore, these four factors become the core elements of ARCS motivation model to stimulate learners' learning motivation, and each element contains a more detailed subset of homogeneous concepts. It provides a theoretical basis for analyzing learners' motivational characteristics, adjusting motivational strategies, and motivating learning autonomy. Each of these four elements can be further divided into three parts (three main ways of motivation, i.e., the three subcategories in the following table), and each part includes some process questions, as shown in Table 9:

Categories	Definitions	Process Questions	Subcategories
Attention	Capturing the interest of learners; stimulating the curiosity to learn.	How can I make this learning experience stimulating and interesting?	Perceptual Arousal
			Inquiry Arousal
			Variability
Relevance	Meeting the personal needs/goals of the learner to affect a positive attitude.	In what ways will this learning experience be valuable for my students?	Goal Orientation
			Motive Matching
			Familiarity
Confidence		How can I via instruction help the students succeed	Learning Requirements

	Helping the learners believe/feel that they will succeed and control their success.	and allow them to control their success?	Success Opportunities
			Personal Control
Satisfaction	Reinforcing accomplishment with rewards (internal and external).	What can I do to help the students feel good about their experience and their experience and desire to continue learning?	Natural Consequences
			Positive Consequences
			Equity

Table 9 Motivational Categories of the ARCS Model

1. Attention

As an element of learning, attention is guided by some kind of stimulus. Usually, it is easy to get students' attention, such as a dramatic statement, a sudden noise, a cadence in the speech, etc. But how to keep students' attention is the point. In response to this problem, Professor Keller proposed Attention Strategies to draw students' attention to six aspects of strategies: the first aspect (A1): incoordination or conflict; The second aspect (A2): concreteness; The third aspect (A3): variability; The fourth aspect (A4) humor; The fifth aspect (A5): Inquiry; Sixth dimension (A6): Participation.

Under the element of attention, there are three homogeneous subsets of concepts: perceptual arousal, inquiry arousal, and variability. Teachers should use novelty, personal or emotional materials to arouse students' interest and achieve perceptual arousal; use questions and counterarguments to stimulate learners' desire to inquire; and use a variety of teaching styles, visual examples, and analogies to increase students' interest in accommodating the variability of learners' attention, as shown in Table 10:

Categories	Subcategories	Process Questions
Attention	Perceptual Arousal	What can I do to capture their interest?
	Inquiry Arousal	How can I stimulate an attitude of inquiry?
	Variability	How can I maintain their attention?

Table 10 Motivational Categories of the ARCS Model-Attention

2. Relevance

Relevance means that teaching content should be connected with students' existing knowledge and experience or with real experience, so that students can understand the relationship between learning content and learning goals, and understand the importance of what they have learned to their growth and development. Personal issues arise when students are confused as to why they should study the content, but do not get a convincing answer.

To solve this problem, Professor Keller proposed Relevance Strategies, which include six aspects: the first aspect (R1): experience; The second aspect (R2): current value; The third aspect (R3): future usefulness; The fourth aspect (R4): need to configure; The fifth aspect (R5): modeling; The sixth aspect (R6): choice.

The subsets that fall under the element of relevance include goal orientation, motive matching, and familiarity. The first is goal orientation, in which the teacher works with students to develop a goal, explain the utility of learning, and break that goal into different learning tasks so that students can take responsibility for choosing their own content and learning style in the learning process; second, the teacher chooses the right time to provide students with suitable and qualified choices, responsibilities, and influences that match the content of the course, in addition, the teacher ought to use real practices that make students' learning style consistent with their group; third, the teacher tries to use concrete examples and analogies to make the teaching material

relevant to students' lives, thus linking the activities to students' existing experiences and increasing their familiarity with the teaching content. As shown in Table 11:

Categories	Subcategories	Process Questions
Relevance	Goal Orientation	How can I best meet my learner's needs? (Do I know their needs?)
	Motive Matching	How and when can I provide my learners with appropriate choices, responsibilities, and influences?
	Familiarity	How can I tie the instruction to the learner's experiences?

Table 11 Motivational Categories of the ARCS Model-Relevance

3. Confidence

Self-confidence is an important factor to promote students to complete their learning goals, acquire knowledge and develop, and at the same time, it will affect students' perseverance and achievement. Confident people often attribute success to ability and effort rather than luck or difficulty of the task, and they are also more likely to believe that their learning plans are effective and that they can achieve their goals through their concrete actions. In contrast, students who are not confident often have a stronger fear of failure than their teachers realize, and they tend to be anxious and have many scruples.

Facing this challenge, Professor Keller proposed Confidence Strategies through his research, which provides reference and reference for educators to help learners build self-confidence. Confidence strategies include five aspects. The first aspect (C1): learning requirements; The second aspect (C2): difficulty; The third aspect (C3): expectation; The fourth aspect (C4): attribution; The fifth aspect (C5): self-confidence.

Teacher ought to help students establish appropriate expectations for success at first by explaining learning requirements, eligibility criteria, and the assessment basis.

In addition, they should provide students with a variety of learning methods to increase success rate and raise self-confidence in their own learning abilities. Not only that, teachers should offer students opportunities to make decisions and help them attribute success to their own effort and ability in the teaching process. As shown in Table 12:

Categories	Subcategories	Process Questions
Confidence	Learning Requirements	How can I assist in building a positive expectation for success?
	Success Opportunities	How will the learning experience support or enhance the students' beliefs in their competence?
	Personal Control	How will the learners clearly know their success is based on their efforts and abilities?

Table 12 Motivational Categories of the ARCS Model-Confidence

4. Satisfaction

Satisfaction refers to the satisfaction that learners get when they reach a given learning goal or complete a preset task. Because different students have different expectations for learning results, how to make different types of students have better learning experience and obtain satisfaction after learning is particularly important to stimulate learners' learning motivation and promote them to better complete their learning tasks.

Satisfaction Strategies proposed by Professor Keller include five aspects: the first aspect (S1): natural results; The second aspect (S2): unexpected rewards; The third aspect (S3): positive results; The fourth aspect (S4): negative impact; The fifth aspect (S5): Scheduling.

In this process, teachers should provide opportunities for students to apply their learned knowledge and skills in authentic settings to promote intrinsic satisfaction. Also,

teachers can use praise, positive feedback, and symbolic rewards to provide reinforcement for students' success. At this point, it should be noted that the external reinforcement is consistent with the internal principles of behavior management, namely, external reinforcement should not adversely affect students' internal motivation. And finally, teachers should use fair evaluation methods and the content of tests should be authentic, i.e., consistent with learning goals, so as to help students correctly perceive and understand their learning achievements. As shown in Table 13:

Categories	Subcategories	Process Questions
Satisfaction	Natural Consequences	How can I provide meaningful opportunities for learners to use their newly acquired knowledge/skill?
	Positive Consequences	What will provide reinforcement to the learner's successes?
	Equity	How can I assist the students in anchoring a positive feeling about their accomplishments?

Table 13 Motivational Categories of the ARCS Model-Satisfaction

Summary

Each of these four elements can be further divided into three parts (three main ways of motivation), and each part includes some process questions and corresponding solutions, as shown in Tables 1. The ARCS Motivational Model is a specific approach proposed to improve the attractiveness of teaching materials. It covers four conceptual categories of attention, relevance, confidence, and satisfaction, which are hierarchically progressive and highly related. All these four aspects together explain the influencing factors and generation process of motivation. Therefore, teachers can stimulate and maintain learners' motivation by systematically embedding this motivation model.

In addition to the four elements, Professor Keller has mentioned specific motivational strategies under each element in several articles, as shown in Table 14.

Attention	A1 Incongruity, Conflict	A1.1	Introduce a fact that seems to contradict the learner's past experience.
		A1.2	Present an example that does not seem to exemplify a given concept.
		A1.3	Introduce two equally plausible facts or principles, only one of which can be true.
		A1.4	Play devil's advocate.
	A2 Concreteness	A2.1	Show visual representations of any important object or set of ideas or relationships.
		A2.2	Give examples of every instructionally important concept or principle.
		A2.3	Use content-related anecdotes, case studies, biographies, etc.
	A3 Variability	A3.1	In stand up delivery, vary the tone of your voice, and use body movement, pauses, and props.
		A3.2	Vary the format of instruction (Information presentation, practice, testing, etc.) according to the attention span of the audience.
		A3.3	Vary the medium of instruction (platform delivery, film, video, print, etc.)

		A3.4	Break up print materials by use of white space, visuals, tables, different typefaces, etc.
		A3.5	Change the style of presentation (humorous-serious, fast-slow, loud-soft, active-passive, etc.).
		A3.6	Shift between student-instructor interaction and student-student interaction.
	A4 Humor	A4.1	Where appropriate, use plays on words during redundant information presentation.
		A4.2	Use humorous Introductions.
		A4.3	Use humorous analogies to explain and summarize.
	A5 Inquiry	A5.1	Use creativity techniques to have learners create unusual analogies and associations to the content.
		A5.2	Build in problem solving activities at regular intervals.
		A5.3	Give learners the opportunity to select topics, projects and assignments that appeal to their curiosity and need to explore.
	A6 Participation	A6.1	Use games, role plays, or simulations that require learner participation.
Relevance	R1 Experience	R1.1	State explicitly how the instruction builds on the learner's existing skills.
		R1.2	Use analogies familiar to the learner from past experience.

	R1.3	Find out what the learners' interests are and relate them to the instruction.
R2 Present Worth	R2.1	State explicitly the present intrinsic value of learning the content, as distinct from its value as a link to future goals.
R3 Future Usefulness	R3.1	State explicitly how the instruction relates to future activities of the learner.
	R3.2	Ask learners to relate the instruction to their own future goals (future wheel).
R4 Need Matching	R4.1	To enhance achievement striving behavior, provide opportunities to achieve standards of excellence under conditions of moderate risk.
	R4.2	To make instruction responsive to the power motive, provide opportunities for responsibility, authority, and interpersonal influence.
	R4.3	To satisfy the need for affiliation, establish trust and provide opportunities for no-risk, cooperative interaction.
R5 Modeling	R5.1	Bring in alumni of the course as enthusiastic guest lecturers.
	R5.2	In a self-paced course, use those who finish first as deputy tutors.
	R5.3	Model enthusiasm for the subject taught.

	R6 Choice	R6.1	Provide meaningful alternative methods for accomplishing a goal.
		R6.2	Provide personal choices for organizing one's work.
Confidence	C1 Learning Requirements	C1.1	Incorporate clearly stated, appealing learning goals into instructional materials.
		C1.2	Provide self-evaluation tools which are based on clearly stated goals.
		C1.3	Explain the criteria for evaluation of performance.
	C2 Difficulty	C2.1	Organize materials on an increasing level of difficulty; that is, structure the learning material to provide a "conquerable" challenge.
	C3 Expectations	C3.1	Include statements about the likelihood of success with given amounts of effort and ability.
		C3.2	Teach students how to develop a plan of work that will result in goal accomplishment.
		C3.3	Help students set realistic goals.
	C4 Attributions	C4.1	Attribute student success to effort rather than luck or ease of task when appropriate (i.e. when you know it's true!).
		C4.2	Encourage student efforts to verbalize appropriate attributions for both successes and failures.
	C5 Self-Confidence	C5.1	Allow students opportunity to become increasingly independent in learning and practicing a skill.

		C5.2	Have students learn new skills under low risk conditions, but practice performance of well-learned tasks under realistic conditions.
		C5.3	Help students understand that the pursuit of excellence does not mean that anything short of perfection is failure; learn to feel good about genuine accomplishment.
Satisfaction	S1 Natural Consequences	S1.1	Allow a student to use a newly acquired skill in a realistic setting as soon as possible.
		S1.2	Verbally reinforce a student's intrinsic pride in accomplishing a difficult task.
		S1.3	Allow a student who masters a task to help others who have not yet done so.
	S2 Unexpected Rewards	S2.1	Reward intrinsically interesting task performance with unexpected, non-contingent rewards.
		S2.2	Reward boring tasks with extrinsic, anticipated rewards.
	S3 Positive Outcomes	S3.1	Give verbal praise for successful progress or accomplishment.
		S3.2	Give personal attention to students.
		S3.3	Provide informative, helpful feedback when it is immediately useful.
		S3.4	Provide motivating feedback (praise) immediately following task performance.

S4 Negative Influences	S4.1	Avoid the use of threats as a means of obtaining task performance.
	S4.2	Avoid surveillance (as opposed to positive attention).
	S4.3	Avoid external performance evaluations whenever it is possible to help the student evaluate his or her own work.
S5 Scheduling	S5.1	Provide frequent reinforcements when a student is learning a new task.
	S5.2	Provide intermittent reinforcement as a student becomes more competent at a task.
	S5.3	Vary the schedule of reinforcements in terms of both interval and quantity.

Table 14 Motivational Strategies

Keller has discussed multiple motivation strategies in many articles. The table above lists the attention strategies, relevance strategies, confidence strategies and satisfaction strategies that can be used to stimulate students' motivation in teaching.

In comparison to other motivational theories, the ARCS Motivation Model is unique in that it can provide instructors with a framework for analyzing and identifying the motivational factors of a specific instruction method. In addition, rather than focusing on a single perspective of learning motivation like satisfaction, this model investigates students' learning motivations from multiple perspectives.

Implementation Steps of ARCS Motivation Design Pattern

ARCS motivation model is a systematic instructional design process combined with traditional instructional design. The implementation steps can be divided into four stages: definition, design, development and evaluation, as shown in Figure 3.

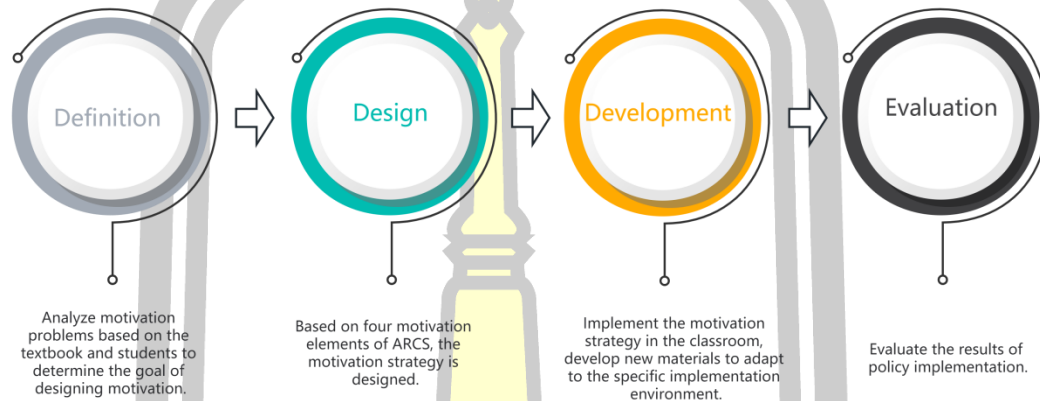


Figure 3 Implementation Steps of ARCS Motivation Design Pattern (Keller, 2010)

Phase 1: Definition phase

The definition phase has two purposes: 1) analyzing motivational problems and 2) setting motivational goals. The purpose of the definition stage is to analyze the learning content and students' motivation problems, list the motivational goals, and help teachers stimulate the learning motivation of different types of students as much as possible in the teaching process. The performance of different students to the program is different, some students accept and are willing to cooperate, while some students show indifference. Therefore, it is necessary and necessary to analyze the motivation of students in combination with what they have learned. Only on this basis can the motivational strategies designed make the whole students respond. In addition, the development of motivation and motivation goals should be clear about its applicable conditions and standards to ensure that students' motivation can be effectively stimulated and maintained after class. For example, teachers can create specific motivational goals and choose appropriate strategies to make all students believe that they can successfully complete the unit if they work hard at the end of a course.

Phase 2: Design phase

In the design phase, first of all, the four elements of motivation should be combined with the establishment of motivation strategy table, as far as possible to develop the motivation strategy that conforms to the teaching content and the characteristics of students. Secondly, it is necessary to clarify the five points for attention in using these strategies: (1) Do not occupy too much teaching time; (2) Do not deviate from the teaching objectives; (3) To clarify the limitations of teaching development and implementation stage time and cost conditions; (4) is acceptable to students; (5) Depending on the designer, the choice of strategy is compatible with the personal style and preferences of the teacher or the designer. In a sense, the exploratory design model of motivational strategy is more enlightening than the prescriptive strategy model, because different designer study different objects, which helps to ensure the solution of the incentive problem, but it requires the designer's experience and judgment, and may even require repeated experiments.

Phase 3: Development phase

The purpose of the development stage is to develop new teaching materials applicable to the specific environment. Specifically, according to the four elements of teaching content, students' motivation characteristics and motivation mode, appropriate motivational strategies and available teaching materials are selected, modified and applied to specific courses, and finally implemented.

Phase 4: Evaluation phase

At the end of the implementation stage, by observing the changes of students and their learning performance and conducting questionnaire survey, we can understand whether students' emotional attitude and course experience have changed, and how they have achieved the effect and satisfaction of the implementation of the course. The results of observation and investigation are analyzed to find out the shortcomings of the

motivation strategy plan, and then further modification and practice are carried out to form a more perfect plan.

These phases can also be listed as a set of activities subdivided into four phases based on the purpose of each activity (Table 15) as illustrated by the general questions listed for each activity.

Phases	Activities	Questions
Definition	1. Obtain course information	What are the relevant characteristics of the current situation including course description, rationale, setting and instructors?
	2. Obtain audience information	What are the relevant characteristics of the audience, including entry-level skills and attitudes toward job and training?
	3. Analyze audience motivation	What are the audience's motivational attitudes toward the course to be offered?
	4. Analyze existing materials and conditions	What kinds of motivational tactics are in the current materials or other source materials and are they appropriate?
	5. List objectives and assessments	What do I want to accomplish with respect to the motivational dynamics of the audience and how will I know if I do?
Design	6. List potential tactics	How many possible tactics are there that might help accomplish the motivational objectives?

	7. Select and/or design tactics	Which tactics seem to be most acceptable for this audience, instructor, and setting?
	8. Integrate with instruction	How do I combine the instructional and motivational components into an integrated design?
Development	9. Select and develop materials	How do I locate or create motivational materials to achieve the objectives?
Evaluation	10. Evaluate and revise	How can I detect the expected and unexpected motivational effects of the course?

Table 15 Motivational Design Activities and Process Questions (Keller, 2010)

Approach and Approach Development

Definition of the approach

Approach in education and academic research typically refers to a way of dealing with a certain problem or task, a methodology, or strategy. Experts from different fields may offer various definitions based on their research backgrounds and the characteristics of their disciplines. Here are the definitions of approach by experts:

Bruner (1960): Defined "approach" as a theoretical framework for learning and teaching, emphasizing how students construct knowledge through discovery learning and problem-solving.

Vygotsky (1978): Described "approach" within the context of sociocultural theory as a teaching method that highlights the role of social interaction and cultural tools in the learning process.

Piaget (1952): Proposed "approach" as a process of cognitive development, focusing on how students build and understand the world through manipulation and experience.

Skinner (1954): Defined "approach" from a behaviorist perspective, viewing it as a method to shape and change student behavior through reinforcement and punishment.

Freire (1970): Viewed "approach" as a practice of critical pedagogy, emphasizing the cultivation of dialogue, reflection, and critical consciousness.

In summary, "approach" in the fields of education and academia generally refers to a specific method, strategy, or theoretical framework used to guide teaching, learning, or research. Different experts, based on their theoretical backgrounds and research areas, have different understandings and definitions of "approach." These definitions reflect the diversity and complexity of the educational and learning processes, as well as varying perspectives on how learners acquire and construct knowledge.

Components of the development approach

Smith, J. (2018) describe several components of the development approach:

1. Principle: effective development approaches should be guided by clear principles that align with the overall goals of the organization or project. These principles often include sustainability, inclusivity, and adaptability, ensuring that the approach remains relevant and effective in various contexts.

2. Objective: The primary objective is to achieve long-term success by integrating development strategies that cater to both current needs and future demands. Objectives should be SMART—Specific, Measurable, Achievable, Relevant, and Time-bound—to provide clear direction and focus for the development process.

3. Content: the content of a development approach should include a comprehensive

understanding of the target audience, resources available, and the specific challenges to be addressed. This content should be structured in a way that supports continuous learning and improvement.

4. Development Process: involves a systematic approach that includes planning, implementation, monitoring, and adjustment. This process should be iterative, allowing for flexibility and refinement based on ongoing feedback and evaluation.

5. Evaluation: the importance of evaluation as a critical component of any development approach. Evaluation should be continuous and multifaceted, assessing not only outcomes but also the process and impact. This ensures that the development approach remains effective and can be adjusted as needed to meet evolving objectives.

Davis, P. (2022) mentioned the important components of the development approach as follow:

1. Principle: effective evaluation of development approaches should be grounded in foundational principles that ensure fairness, transparency, and rigor.

2. Objective: To determine how well development approaches achieve their intended outcomes and objectives.

3. Content: Discussion of various evaluation theories and models that underpin the assessment of development approaches.

4. Development Process: Choose appropriate models and theories to guide the evaluation. Outline the scope, timeline, resources, and methodologies to be used.

5. Evaluation: Conduct evaluations during the development process to provide ongoing feedback and facilitate adjustments.

In summary, from studying the evaluation of the approach from various academics, it can be concluded that the evaluation of the approach includes 1) Principle, 2) Objective, 3) Content, 4) Development Process, and 5) Evaluation.

Contexts relevance Learning Motivation of Upgrading to College Students in Baise University

The particularity of upgrading to college students

upgrading to college students who has been in a junior college for three years, after passing the unified examination organized by each province, has reached a certain admission score and then is promoted to a college to continue his/her studies. The knowledge base of these students is generally relatively weak. They find it difficult to study. As a result, some students lost their confidence in study. Some students lost their interest in study when they were in junior college because the teachers were not particularly proficient in the method and the teaching conditions were relatively poor. They just studied and reviewed suddenly when preparing for the entrance examination, and the knowledge base was not particularly solid, which led to a feeling of fear and anxiety about study. These bad feelings have a bad effect on learning. In view of the particularity of students who go to higher education, the motivation of foreign language learning is more important for these students. In order to improve students' learning effect more comprehensively, teachers should focus on cultivating students' learning motivation.

Basic situation of upgrading to college students in Baise University

1. Admission, class placement and graduation of upgrading to college students in Baise University

At present, Baise University enrolls a total of 19 majors and trains students in 11 secondary colleges. As of June 2023, the number of students in the school is 1,788.

Baise University adopts the form of separate class management for the majors whose enrollment reaches the administrative class, and integrates the original undergraduate classes for the majors with a small enrollment.

In 2020, 96.22% of students were graduated and 94.14% awarded degrees. In 2021, the graduation rate of upgrading to college students is 95.38%, and the degree awarding

rate is 94.56%. In 2022, the graduation rate is 98.72%, and the degree awarding rate is 96.07%.

2. Basic situation of upgrading to college students' training

2.1 Formulation of students' training program

Baise University upgrading to college students for two years, credits completed and meet the requirements can be awarded graduation certificate and bachelor's degree certificate. According to the specific situation of the students, the school has developed a talent training program for the students who are separately assigned to separate classes, clarified the goal of talent training, and set up a scientific and reasonable curriculum system. According to the process of "industry enterprise research, graduate research, similar universities research, student research - graduate employment and vocational ability analysis - training objectives and graduation requirements determination - curriculum system design - school-enterprise joint argumentation - expert review - college review - school approval", Baise University focuses on the school's talent training positioning. Organize experts inside and outside the school to jointly develop the training program of talents upgrading to higher education. The talent training plan accurately locates the training objectives and training specifications of professional talents, reasonably constructs the curriculum system, arranges the teaching process, and clarifies the requirements of teaching content, teaching methods, teaching resources and teaching conditions guarantee.

2.2 Curriculum

According to the characteristics of upgrading to college students, the curriculum is designed to strengthen the students' learning of professional theoretical knowledge, and at the same time, the professional skills training is further strengthened through experimental practical training, professional probation and internship. To enhance students' research awareness and research ability by applying for innovation

and entrepreneurship training projects and writing graduation projects. The school does not jointly train students for higher education with higher vocational colleges.

3. Graduates' satisfaction and employers' overall evaluation of graduates

In the past three years, through the survey of graduates' satisfaction and the survey of employers' satisfaction, the graduates are basically satisfied with the school's talent training work, and the employers' overall satisfaction with the graduates of Baise University has reached more than 93%.

Related Research

Domestic Research

In recent years, China has always placed education in a strategic position of priority development. The General Office of the Ministry of Education (2021) issued the *"Implementation Plan for the Construction of Teaching Materials for the 14th Five-Year Plan for Vocational Education Planning"*, which clearly pointed out that it pays attention to stimulating students' learning interest and innovation potential, and effectively combines knowledge, ability and correct values to promote the reform of talent training mode. Since the spread of the novel coronavirus epidemic in 2020, China's education field is undergoing unprecedented changes, which also indicates that China's demand for high-quality education development will be more urgent. Based on this, it is a general trend to effectively use ARCS Motivation Model in teaching to stimulate students' learning drive, assist students' all-round development, and promote high-quality development in the field of teaching.

Gao Liming (1997), was the first one to discuss ARCS Motivation Model in our country in the article *ARCS Model in Mobility of Learning Motivation and Choice of Teaching Method*. Thereafter, the application of ARCS Motivation model in teaching in our country became more and more popular. In recent years, the theoretical research results of this model have achieved remarkable results, and at the same time, practical research has also kept pace, and ARCS has been widely used in higher education, primary education and other fields. Empirical studies have shown that ARCS can

effectively improve students' learning motivation, optimize teaching effects, and promote teaching reform.

This paper studies the development status of ARCS motivation model in China, searches the key term "ARCS motivation model" through CNKI, and finds that the research results are relatively abundant. A total of 631 articles in the last ten years were searched on CNKI (as of August 2023). According to the quantifiable analysis results obtained by CNKI, Figure 4 is obtained.

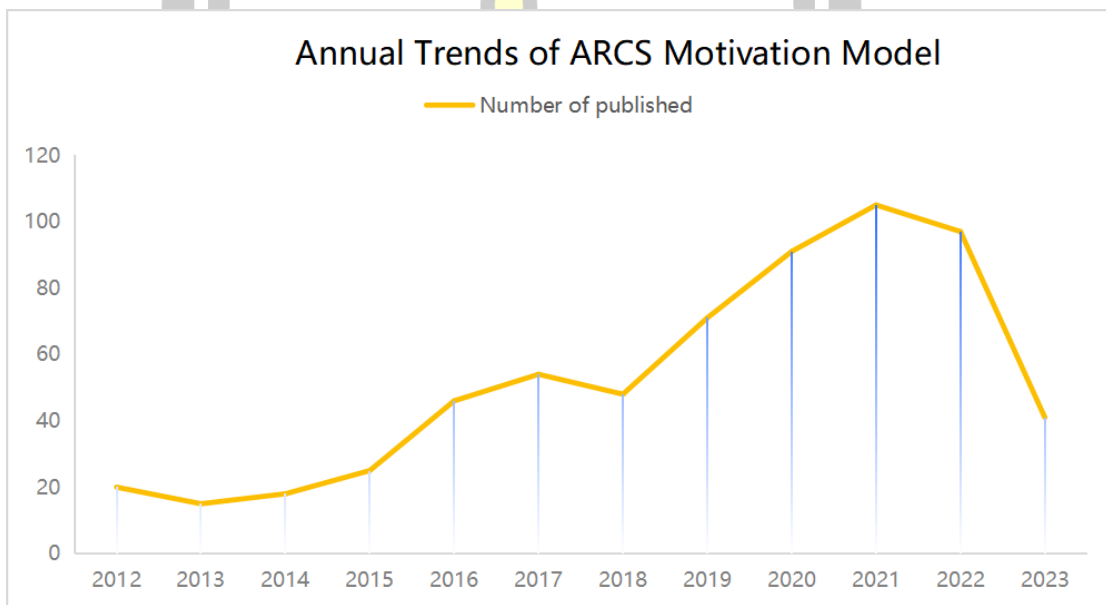


Figure 4 Annual Trend of ARCS Motivation Model (Domestic)

Combined with the trend statistics in the figure, the number of publications on this model is on the rise. Research on ARCS motivation models peaked at 105 papers in 2021. By reviewing these literatures, the research direction mainly focuses on theory. With the expansion of the research scope, the application of ARCS motivation model has attracted more and more scholars' attention.

Liu Shan (2013) combined Professor Keller's ARCS motivation model with junior high school mathematics classroom teaching design to conduct an applied research. Based on the influence of social progress on students' learning motivation, the concept

of teacher education, and the characteristics of junior high school students. The research result shows that this theory has a good promoting effect on stimulating students' learning motivation and improving students' academic performance.

Liu Shuang (2016), *Research on the Design of Micro-courses for Primary and Secondary School Teacher Training from the Perspective of ARCS Model*, the purpose of the research applied ARCS model to the design of micro-courses for primary and secondary school teacher training, providing a model for micro-course training courses. Kong Lu applied this model in the design of mathematics micro-class, from the perspective of "Internet +" and technology, to improve the boring of traditional mathematics classroom and improve the teaching effect of mathematics classroom. Other scholars have applied this theory to various fields, such as oral English teaching, network learning for national security supervision cadres and reading teaching, which shows that the research of this theory is constantly upsurge.

Xie Youru, Zhang Huiyan, Wu Lihong and Qiu Yi (2017), *Research on Self-organized Learning Model of Open Online Courses Based on ARCS*, studied the application of ARCS theory to the study of open online courses and constructed a self-organizing learning model based on ARCS motivation theory. The research result shows that this model has a good effect on improving students' learning enthusiasm and improving their learning ability, and can effectively stimulate and maintain students' learning motivation in open courses. Based on ARCS motivation model, Sun Lijun (2018), *Teaching Analysis of High School Chemistry Quality Class Based on ARCS Motivation Model*, introduced the factors that ARCS motivation model affected students' learning motivation, analyzed the teaching of high school chemistry quality courses in combination with teaching cases, and finally summarized the use of ARCS motivation and incentive strategies. The results show that ARCS motivation strategy plays a good role in stimulating and maintaining students' learning motivation and helping students build up their learning confidence.

ARCS motivation model started late in China and was gradually introduced into subject teaching from the 1990s. Through consulting, ARCS motivation model is widely used in higher education, secondary education, educational theory and educational management and other fields. Through analysis, the cooperative content of these research literatures can be divided into three views.

The first view is that ARCS is used as a theoretical guide in teaching design and puts forward corresponding strategies. From the current research object, ARCS is widely used in micro-course design, involving many basic education subjects or courses such as English, mathematics and biology. Luo Zheng, Guo Dejun et al. (2019), *Preparation of ARCS Interest Questionnaire*, analyzed the validity of ARCS motivation design model in middle school Chinese classroom education, and explored its practicability and effectiveness in classroom teaching. As early as Xiao Haipeng and Xie Mingyao's (2018), *"Computer Basis" Based on the Theory of the ARCS Micro Curriculum Design*, micro-course design, the micro-course development process was constructed according to the content of the motivation model. Kong Lu effectively integrated the four elements of the model into the teaching of mathematics micro-lessons, so as to design the design model of mathematics micro-lessons." Zhang Zhigang and Zhu Shimei (2020) mainly explore the motivation design in classroom teaching on the basis of ARCS motivation model to provide learners with concrete systematic methods." Luo Jing (2019) integrates ARCS motivation and incentive strategies in the application of middle school multimedia courseware to enhance students' learning initiative. ARCS motivation model is not only applied to micro-class design, but also combined with flipped classroom. Sun Xinmeng (2021), in the paper of *Flip Class in High School Mathematics Teaching, the Application of Research*, integrated motivation strategy into teaching design and designed a flipped classroom teaching model suitable for high school mathematics. It is found that domestic scholars use ARCS motivation theory to design and develop courses, and put forward corresponding motivation strategies or teaching models.

The second view is that ARCS is used as a theoretical basis to put forward relevant motivational design strategies combined with multimedia technology in a certain field. Through the review of relevant literature, it is found that there are many literatures on information technology. Liu Yumei (2022) studies the use of multimedia network technology to improve the classroom teaching environment, so as to enhance students' motivation in ARCS. Li Xiaoxia and Liu Lili (2022) combined the characteristics of online courses and integrated motivation strategies into the teaching design to build the teaching design model of online courses. With the rapid development of information technology, the way of online learning has come into people's vision. After in-depth analysis of the characteristics of online learning, Xu Zhen (2021), in the paper of *Research on Motivation and Retention Strategies of College Students' Online Learning Motivation*, combined ARCS motivation theory with information technology to design motivation strategies for online learning. Zhou Jianzhong (2019), *On the Practice and Exploration of ARCS Motivation Model in High school Information Technology Teaching*, the purpose is to improve the teaching of information technology in high school and realize the application of ARCS motivation model in teaching so as to arouse students' enthusiasm for learning. Ganlu (2023) combines information technology with classroom teaching, analyzes the effect of motivation model on information technology, and puts forward the teaching strategy of transformation based on information technology.

The third view is that ARCS motivation model is used to analyze the influence of teaching content, resources, environment and other factors on learners. Zheng Mingxue (2019) applied ARCS four elements to distance teaching, analyzed the current situation of students' motivation and proposed corresponding strategies. Wang Longxin and Jiang Jiangjiang (2019) believe that students' motivation is an important factor affecting the development of digital games. Under the guidance of ARCS motivation model, they explain how to apply motivation model to digital game design." Wang Zhaoying (2022) analyzed the practical application value of motivation theory to network learning resources through the teaching of "College Photography Basic Course", and provided

new ideas for the design and development of network learning resources. Li Luyi and Zheng Yanlin (2022) focused on the design of maker projects in the ARCS motivation model, and analyzed students' participation consciousness and involvement in maker projects based on real problem situations. In this regard, the motivational model has made a lot of attempts to analyze the influence of different teaching content and educational environment on learners' learning effect, so as to help learners better maintain their learning motivation.

Foreign Research

This paper studies the development status of ARCS motivation model abroad, searches the key term "ARCS motivation model" through CNKI, and finds a total of 362 literatures in the past decade (as of August 2023). According to the quantifiable analysis results obtained by CNKI, Figure 5 is obtained. According to the statistical results, the "ARCS motivation Model" research peaked in 2021 with a total of 33 articles published.

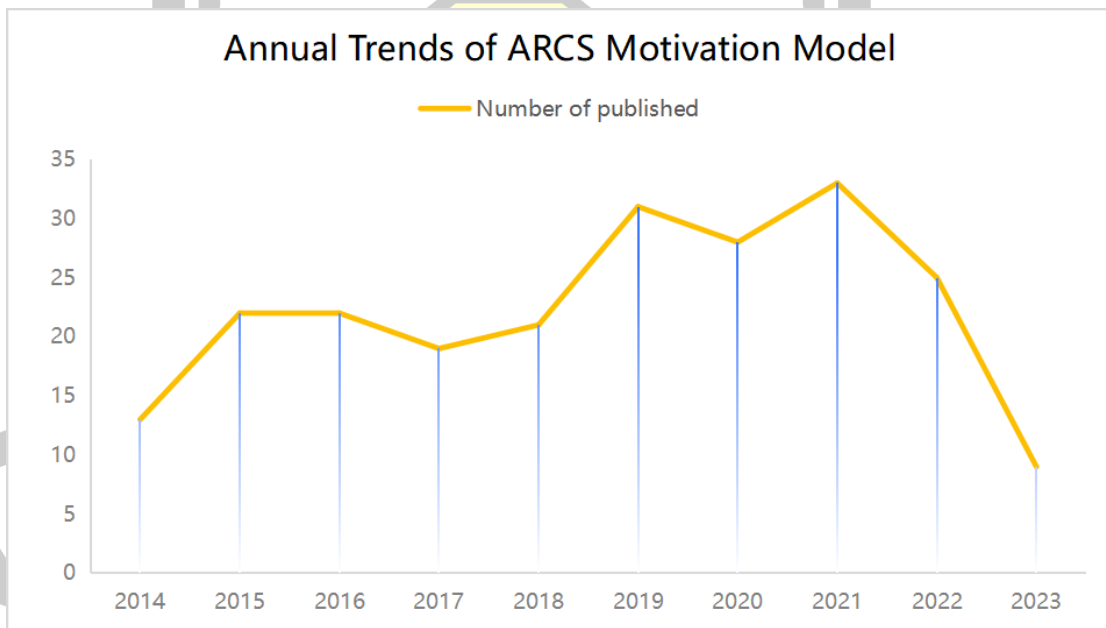


Figure 5 Annual Trends of ARCS Motivation Model (Foreign)

Professor John M Keller (1983) proposed the ARCS motivation model through comprehensive analysis on the basis of a variety of relevant research theories and viewpoints on motivation. ARCS motivation model is based on the acronyms of four

English words: Attention, Relevance, Confidence and Satisfaction. The Chinese meaning is attention, relevance, confidence and satisfaction. Professor Keller (1988) applied the model to teacher training, tested the validity of the theory, and constantly added new motivational strategies. With the rapid development of information technology, ARCS motivation model has been gradually promoted to all over the world. Some European countries have applied this model to distance education to improve learner motivation, and introduced it into the field of education development in Japan, where it is mainly used in multimedia courseware design.

Professor Keller further deepened the theoretical study of the model and designed a set of systematic processes. He first applied it in teacher education training to help teachers to increase motivation in teaching design. Keller (1996) gave a report on "Motivational Design and Multi-media: Beyond the Novelty Effect" at the International Symposium on New Technologies in Education, which mainly explained the characteristics of multimedia technologies and some motivational strategies. In 2001, in "The Systematic Design of Instruction", he really applied the motivation model to the field of teaching. Scholars Walter Dick and Lou Carey (1970) integrated the nine-stage teaching activity of mental activity proposed by Gagne in Learning Conditions with the motivation model theory, and innovatively composed five teaching links of motivation, as shown in Figure 6, to ensure that each link in teaching design or training can stimulate learners' motivation.

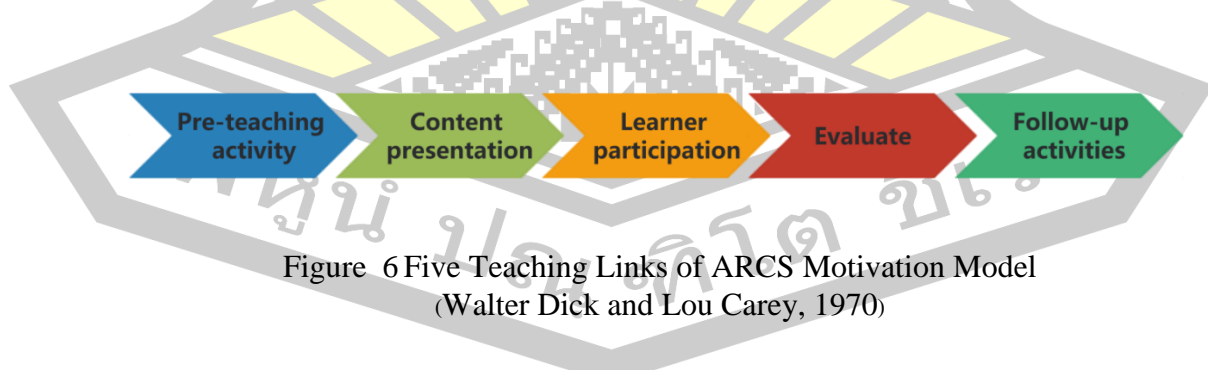


Figure 6 Five Teaching Links of ARCS Motivation Model
(Walter Dick and Lou Carey, 1970)

Malik Sangeeta (2014), in order to explore the reasons for students' lack of learning confidence in distance learning, cited ARCS motivation model in distance learning,

designed the effectiveness of distance learning based on ARCS motivation model, and created distance courses that filled students' learning expectations.

Sanchai Wongwiwatthananut (2015) applied ARCS motivation model to medical education in order to stimulate students' learning motivation and improve their learning achievement.

E. Popescu, Kinshuk, M.K. Khribi, R. Huang, M. Jemni, N.-S. Chen (2017), in his book *Innovations in Smart Learning*, co-authored by D.G. Thompson (Eds.), Professor Keller's ARCS model and learning strategies were combined and applied to classroom teaching to discuss the relationship between sustained attention and foreign language anxiety. The results showed that students with low levels of anxiety were more likely to pay attention during language learning, but their attention was enhanced when they felt more anxious while completing a more challenging task.

Yalin Kilic Turel and Seda Ozer Sanal (2018) used a hybrid design approach based on the ARCS motivation model to explore the impact of e-books on students' achievement, motivation and anxiety. The results show that students who use e-books based on ARCS motivation model perform significantly better in math achievement tests and motivation surveys. In addition, the results also show that e-books based on ARCS motivation model have a significant impact on reducing the level of math anxiety of students.

To sum up, it is found that foreign scholars started earlier in the study of ARCS motivation model, and with the deepening of research, the model has been continuously improved in theory and practice, attracting the attention of many scholars of teaching system research and carrying out relevant researches based on this theoretical model. However, the research direction of ARCS motivation model in foreign countries mostly stays in theory and strategy. There are few studies on the application of comprehensive practice in the classroom, especially for the special students in the higher education stage, there is still a lot of room for investigation and research.

By comparing the research status of ARCS motivation model at home and abroad, it can be found that:

First of all, domestic research results on ARCS motivation model have increased significantly, and more and more scholars have become an important force in the study of ARCS model, and the subject fields involved are also constantly expanding, indicating that people are paying more and more attention to learner motivation, which further promotes the development and innovation of education and teaching. However, the domestic theoretical research on ARCS motivation model is relatively weak, which mainly refers to the lack of depth and breadth of research, and the shortcomings of research are worthy of in-depth discussion.

Secondly, there are a lot of research results on ARCS motivation model theory and strategy abroad, from theoretical research to reports, further extended to teaching design, and the research on combining ARCS motivation model with multimedia technology for multimedia courseware design is also early, but the research results are mostly theoretical analysis. After 2010, more scholars have applied ARCS motivation model to the practice of various educational courses, but there are few researches on the basic education stage.

On the basis of the existing literature research results, the application of ARCS motivation model needs to be further refined and in-depth study, especially for the study motivation of students in higher education, which needs to be further refined and analyzed to enrich the relevant research content. By using the method of questionnaire survey, this paper analyzes the existing relevant literature, studies the stimulation of the learning motivation of the students in Baise University, discusses its influencing factors and improvement strategies, and provides valuable reference for the research of related topics.

CHAPTER III

RESEARCH METHODOLOGY

This chapter provides an overview of the research design and procedures for "motivating higher secondary students to learn", divided into three phases. Each stage is described in detail on the steps of the program and the expected results, as shown in the figure.

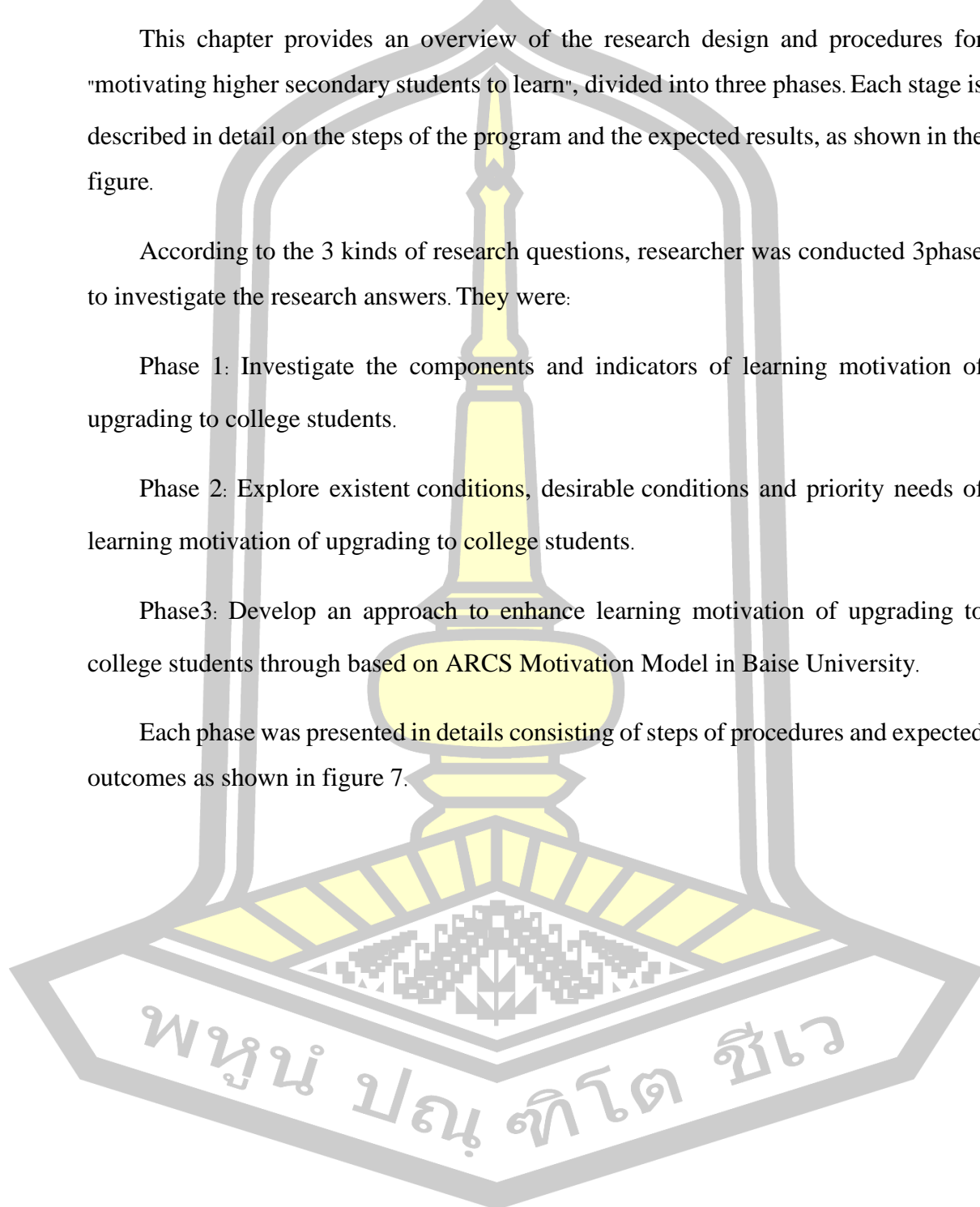
According to the 3 kinds of research questions, researcher was conducted 3phase to investigate the research answers. They were:

Phase 1: Investigate the components and indicators of learning motivation of upgrading to college students.

Phase 2: Explore existent conditions, desirable conditions and priority needs of learning motivation of upgrading to college students.

Phase3: Develop an approach to enhance learning motivation of upgrading to college students through based on ARCS Motivation Model in Baise University.

Each phase was presented in details consisting of steps of procedures and expected outcomes as shown in figure 7.



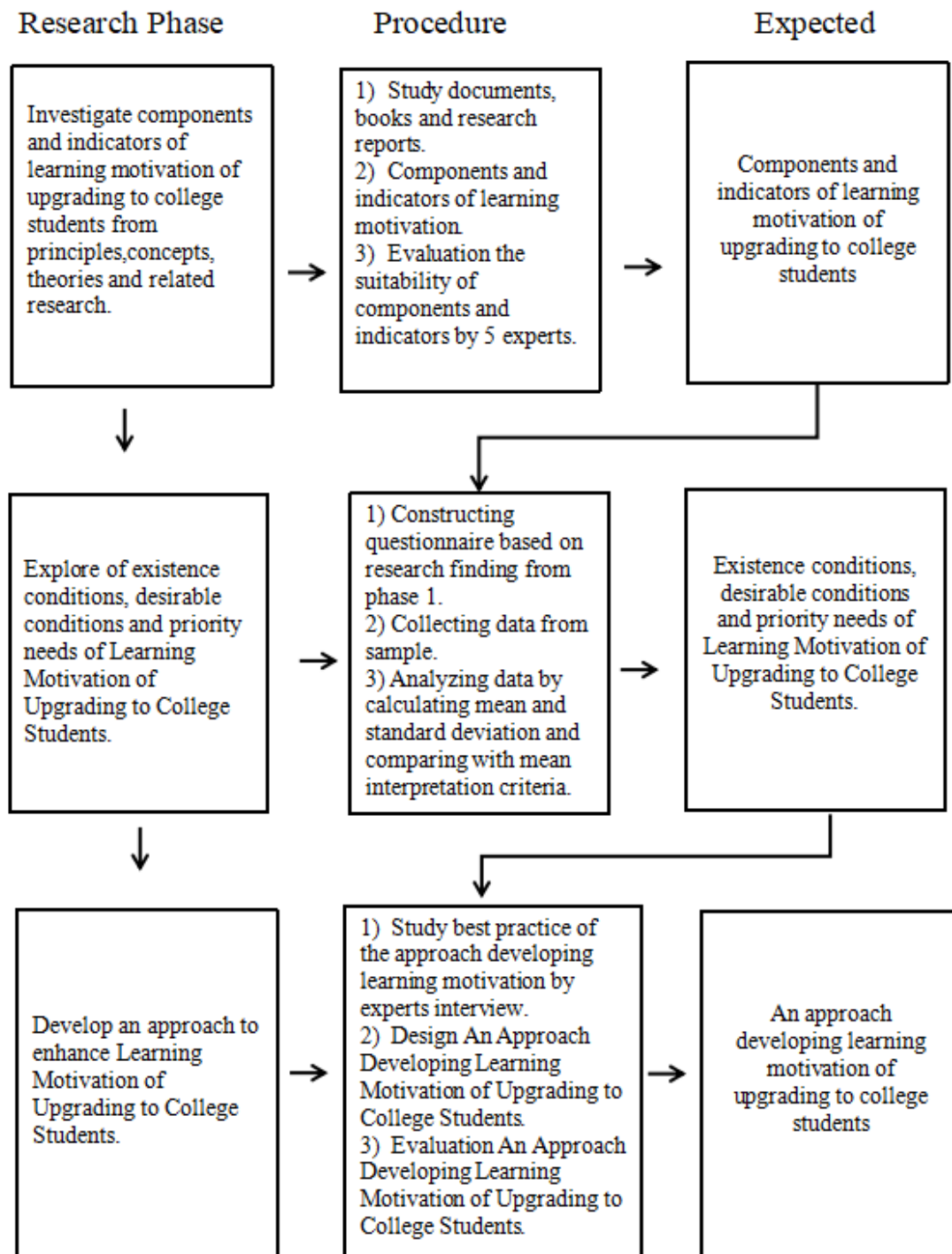


Figure 7 Procedure of An Approach Developing Learning Motivation of Upgrading to College Students

The details of each phase are as follows:

Phase 1 Investigate the components and indicators of learning motivation of upgrading to college students.

Step 1 Study components of learning motivation of upgrading to college students.

The researcher studies components of learning motivation of upgrading to college students from documents, concepts, theories, and research related to learning motivation. And then the researcher summarizes, analyzes, and synthesizes components and indicators of learning motivation of upgrading to college students. The research methods are as follows:

1. Data sources include books, textbooks, documents, and research related to the studied variables that can be retrieved from libraries, the Internet, and online databases.

2. Research instrument

Recording forms for printed documents (record cards) or using Microsoft Word.

3. Data Collection

The researcher collected and categorized the content according to the variables studied.

4. Data Manipulation and Analysis

The summarizes, analyzes, and synthesizes were used for content analysis techniques and used the analytical data to classify items into data analysis.

Step 2 Evaluation the suitability of components and indicators of learning motivation of upgrading to college students.

1. Expert. Criteria for selecting qualified experts are as follows:

1.1 Education: have master degree of education at least.

1.2 Experience: have professional knowledge and experiences of educational management, educational research, or educational psychology, and have experience in teaching and advice post-graduate students in the fields mentioned above

1.3 Job position: Educational management

Experts include:

1. Assoc. Prof. Dr. Pacharawit Chansirisira, Department of Educational Administration, Faculty of Education, Maharakham University.
2. Asst. Prof. Dr. Surachet Noirid, Lecturer of Research and Development, Faculty of Education, Maharakham University.
3. Professor Liu Fang, Vice President, Baise University, Guangxi, China.
4. Professor Wang Fang, Director of Center for Teaching Quality Evaluation, Baise University, Guangxi, China.
5. Professor Cao Alin, Director of Academic Affairs Office, Baise University, Guangxi, China.

2. Research instrument

2.1 Constructed research instrument

The researcher has proceeded to create and find the quality of research instrument as follows.

2.2.1 Characteristics of the research instrument is a suitability assessment of components and indicators, divided into 2 parts.

Part 1: Checklist questionnaire, asking about the status of the experts.

Part 2: Assessment of the suitability the components and indicators of learning motivation of upgrading to college students in Baise University.

Level 5 refers to suitability highest level

Level 4 refers to high suitability

Level 3 refers to suitability medium level

Level 2 refers to suitability low level

Level 1 refers to suitability lowest level

2.2 Find out quality of research instrument

2.2.1 Study details of components, indicators, learning motivation

2.2.2 Define the components, indicators, learning motivation

2.2.3 create assessment form of learning motivation

2.2.4 Take it to the advisor to check for accuracy and improve according to recommendations.

2.2.5 Prepare a complete suitability evaluation form.

3. Data Collection

The researcher proceeded with data collection with the following steps:

3.1 The researcher recorded the official documents of the Faculty of Education, Maharakham University to experts to request assistance in collecting data.

3.2 Contact and coordinate with experts to assess the appropriateness of the components and indicators of learning motivation of upgrading to college students.

3.3 Carry out data collection

4. Data Manipulation and Analysis

4.1 Organizing data the researcher proceeds as follows.

4.1.1 Verify accuracy Completeness of the assessment form

4.1.2 Code, score and record data on the computer.

4.2 Data analysis

Form for evaluating the suitability of methods for developing learning motivation of upgrading to college students, Use mean analysis and standard deviation Using the criteria for interpreting the mean (Srisa-ard, B. 2010)

4.51 – 5.00 refers to suitability highest level

3.51 – 4.50 refers to high suitability

2.51 – 3.50 refers to suitability medium level

1.51 – 2.50 refers to suitability low level

1.00 – 1.50 refers to suitability lowest level

Phase 2 Explore of existent conditions, desirable conditions and priority needs of learning motivation of upgrading to college students.

The explored existent conditions, desirable conditions of learning motivation of upgrading to college students, conducted a survey research method with the following research methods:

1. Population and sample

1.1 The population used in this research consists of 840 upgrading to college students in Baise University, Guangxi, China.

1.2 The sample group used in this research included 271 upgrading to college students in Baise University, Guangxi, China. In order to obtain the sample for this study, the researcher used random sampling technique to extract the study sample. The population was 840, and the Yamane formula (1973) was used to obtain the sample.

Formula $n = \frac{N}{1+Ne^2}$

(1+Ne²)

The meanings are

n = sample size

N = population

e = confidence level (95%)

Then the result of sample size is shown in the table 16:

No.	Kind of Population	Total Population	Total Sample
1	Upgrading to college students	840	271

Table 16 Population and Sample

2. Research Instrument

2.1 Constructed research instrument

Constructed research instrument by questionnaire, divided into sections, which are:

Part 1 Checklist questionnaire asked about, for example, the gender of the respondents, which was a forced choice.

Part 2 Rating Scale questionnaire asked about the existent condition, and desired condition. By classifying the questions as a 5-level estimation scale of the Likert Scale, the score value is 5 levels as follows:

5 refers to the level as highest

4 refers to the level as high

3 refers to the level as medium

2 refers to the level as low

1 refers to the level as lowest

2.2 Find out quality of research instrument

2.2.1 Study how to construct an estimation scale questionnaire.

2.2.2 Create questionnaire from the results of the study in Phase 1 served as a framework for constructing the questionnaire.

2.2.3 Take it to the thesis advisor to check its accuracy and make improvements according to their advice.

2.2.4 Checking the quality of the questionnaire by checking content validity, the researcher brought the create questionnaire by the researcher. and has been considered by advisor, send to expert's evaluation validity of contents, suitability, and clarity of the questions Carry out research instrument for quality checks. Criteria of content validity is .60 or higher.

Experts in examining research instruments and considering giving opinions on the consistency of the questionnaire using Index of Congruence technique, 5 experts consist of:

1. Professor Liu Fang, Vice President, Baise University, Guangxi, China.
2. Professor Wang Fang, Director of Center for Teaching Quality Evaluation, Baise University, Guangxi, China.
3. Professor Cao Alin, Director of the Academic Affairs Office, Baise University, Guangxi, China.
4. Professor Yang Xiufu, Dean of Faculty of Educational, Baise University, Guangxi, China.
5. Professor Wen Fengping, Deputy Director of Academic Affairs Office, Baise University, Guangxi, China.

2.2.5 The researcher takes the draft questionnaire that has been checked for validity and considered by the thesis control committee and used to try out with a sample of 271 persons. Using Pearson's simple correlation coefficient. By looking at the

correlation between item scores and total scores (Item Total Correlation), the researcher selected items with item classification power between 0.20 - 0.80.

2.2.6 Checking the confidence value the researcher used the questionnaire with discriminatory power to find the reliability of the whole copy according to Conbrach's alpha coefficient method. (Cronbach' Alpha Coefficient) where the researcher used the confidence criteria for the whole version equal to or greater than 0.70.

2.2.7 Prepare a complete questionnaire, and used to collect data with samples.

3. Data Collection

3.1 Proceed to request an official letter to collect data from the Faculty of Education.

3.2 Contact and coordinate for assistance in collecting data with samples.

3.3 Data Collection: the researcher collects data by manual/postal or electronic collection methods)

4. Data Manipulation and Analysis

4.1 Data handling, the researcher proceeds as follows.

4.1.1 Validate exhaustive questionnaire

4.1.2 Assign codes, give points, and record data on the computer.

4.2 Analysis of questionnaire data

4.2.1 Section 1 Status of Respondents using frequency and percentage analysis

4.2.2 Section 2 Current condition and desirable condition, use mean analysis and standard deviation

4.51 - 5.00 refers to current/desirable as highest

3.51 - 4.50 refers to current/desirable as high

2.51 - 3.50 refers to current/desirable as medium

1.51 - 2.50 refers to current/desirable as low

1.00 - 1.50 refers to current/desirable as lowest

5. Statistics for data analysis

5.1 The statistics used to determine the quality of the instrument are the Index of Congruance (IOC), discrimination, and Reliability of the Questionnaire

5.2 Basic statistics: frequency, percentage, mean, standard deviation.

5.3 Priority Needs of Index (PNI_{modified})

In order to assess the learning motivation and studying satisfaction of students upgrading to college, the researcher will use the calculation Mean of existence level minus Mean of desired level. In addition, the needs for teacher competency development in student learning motivation will be analyzed by modifying Priority Needs Index (PNI modified) (Wongwanich, 2005). PNI modified was calculated by the following formula:

$$\text{PNI modified} = \frac{(I - D)}{D}$$

where

I: Importance or desired performance

D: Degree of success or current performance

The modified PNI analysis could reflect the student's learning motivation to be developed. A high index represents high need, which is supposed to be more developed rather than a lower index. The learning motivation elements showing a high value of modified PNI would result in the higher priority of that student learning motivation to be further developed. The modified PNI value was normally in the range of 0.00 - 1.00 to facilitate an interpretation. The student learning motivation that had modified PNI value above 0.30 or higher was considered critical (Wongwanich, 2005) and will be required to be improved urgently. In case of the modified PNI values lower than 0.30, the extent of the efforts to improve themselves becomes less.

Phase 3 Develop an approach to enhance learning motivation of upgrading to college students through based on ARCS Motivation Model in Baise University.

The researcher conducted the study by using qualitative research with the following research methods:

Step 1 The study method such as a best practice school or an in-depth interview

where the researcher proceeds with the following steps:

1. Expert. Criteria for selecting qualified experts are as follows:

1.1 Education: have master degree of education at least.

1.2 Experience: have professional knowledge and experiences of educational management, educational research, or educational psychology, and have experience in teaching and advice post-graduate students in the fields mentioned above

1.3 Job position: Educational management

Experts include:

1. Professor Xu Shuye, Vice President, Nanning Normal University, Guangxi, China.

2. Professor Jiang Hongxing, Vice President, Hezhou University, Guangxi, China.

3. Professor Qin Chengbu, Director of Teaching Management, Nanning Normal University, Guangxi, China.

4. Professor Chen Yihu, Director of Teaching Management, Hezhou University, Guangxi, China.

5. Professor Pu Ricai, Director of Faculty of Teacher Education, Hezhou University, Guangxi, China.

2. Research instrument

2.1 Constructed research instrument

Constructed research instrument by data collection was an interview (structured) has the following components:

Part 1 General information (such as administrative position, academic position, education level, Place of work, work experience)

Part 2 Opinions on the issues interviewed

2.2 Find out quality of research instrument

The researcher has proceeded to create and find the quality of the tools as follows.

1) Study the concepts, theories, and related research of learning motivation of upgrading to college students.

2) Create an interview questionnaire.

3) Take the interview form to the advisor to check the correctness of the interview form, and idioms, and make improvements as recommended.

4) Take the interview form to experts to assess the consistency between the

objective questions.

5) Improve the interview form according to the advice of experts to be published in the complete edition.

3. Data Collection

The researcher collects data by coordinating with experts, and conducting an interview. The details are as follows:

3.1 Prepare a letter asking for cooperation from the Faculty of Education to experts.

3.2 Submit a letter requesting a cooperation thesis outline and a structured interview form to the experts to ask for assistance in giving an interview

3.3 Coordinate with experts to request an interview date and time.

3.4 Interview on the appointed date and time.

4. Data Manipulation and Analysis

4.1 Collect interview data, organize information and group content

4.2 Data were analyzed by qualitative data analysis techniques.

Step 2 Design an Approach Developing Learning Motivation of Upgrading to College Students

The researcher explains the method of creating an approach to develop learning motivation of upgrading to college students in Baise University by studying principles, concepts, theories, and studying necessary needs. The researcher designed draft of approach based on the experience of best practice, the research results gained from step 1, the needs of students' learning motivation and review various sources of documents lead to drafting approach to enhance student's learning motivation.

Step 3 Evaluation the Approach Developing Learning Motivation of Upgrading to College Students

1.Expert. Criteria for selecting qualified experts are as follows:

- 1.1 Education: have doctoral degree of Education at least.
- 1.2 Experience: have experience the field of educational training, educational management, educational research, or educational psychology.
- 1.3 Job position: education management.

Experts include:

1. Professor Liu Fang, Vice President, Baise University, Guangxi, China.
2. Professor Wang Fang, Director of Center for Teaching Quality Evaluation, Baise University, Guangxi, China.
3. Professor Cao Alin, Director of the Academic Affairs Office, Baise University, Guangxi, China.
4. Professor Huang Jianxiong, Director of Center for Subject Development, Baise University, Guangxi, China.
5. Professor Wu Xianyong, Dean of Faculty of International Education, Baise University, Guangxi, China.

2. Research instrument

2.1 Constructed research instrument

Constructed research instrument by studying documents. Relevant research of approach components. Then determine the key points to be assessed from the information obtained from the study, then used to create questions to cover the issue.

2.2 Find out quality of research instrument

2.2.1 Study the details of the components of the approach

2.2.2 Determine the key points to be assessed from the data obtained from the study, and used to write questions to cover all issues

2.2.3 Advisor the correctness of the idioms

2.2.4 Experts Verify Content Validity of Question Clarity

5 refers to the level as highest

4 refers to the level as high

3 refers to the level as medium

2 refers to the level as low

1 refers to the level as lowest

3. Data Collection

The researcher coordinated with experts to evaluation the suitability and feasibility of the approach to develop learning motivation of upgrading to college students in Baise University.

4. Data Manipulation and Analysis

Validate analyze data and interpret data. Criteria by using the mean interpretation criterion (Boonchom Sri-sa-ard, 2010).

4.51 - 5.00 refers to suitability and feasibility as highest

3.51 - 4.50 refers to suitability and feasibility as high

2.51 - 3.50 refers to suitability and feasibility as a medium

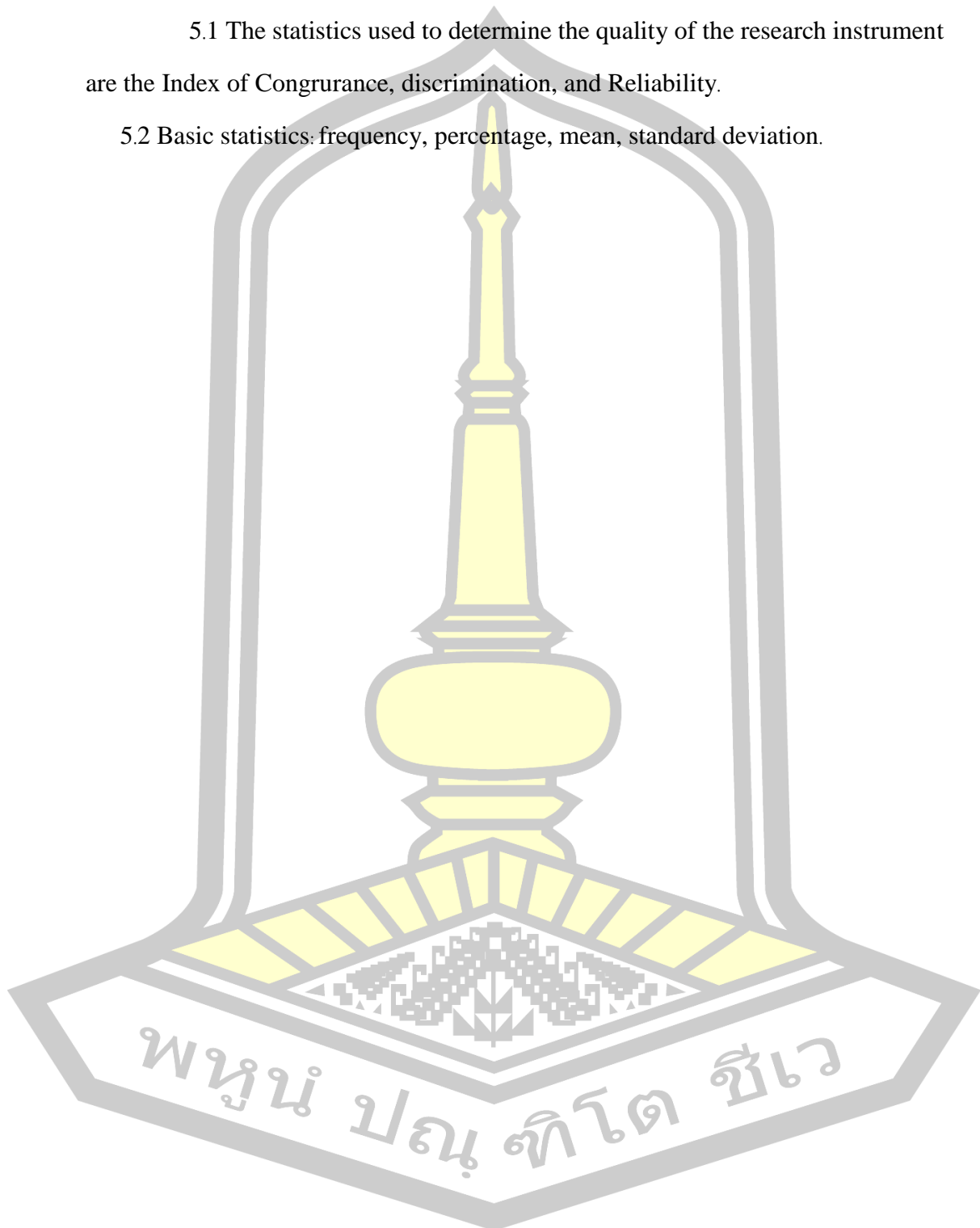
1.51 - 2.50 refers to suitability and feasibility as low

1.00 - 1.50 refers to suitability and feasibility as lowest

5. Statistics for data analysis

5.1 The statistics used to determine the quality of the research instrument are the Index of Congruance, discrimination, and Reliability.

5.2 Basic statistics: frequency, percentage, mean, standard deviation.



CHAPTER IV

RESULT OF DATA ANALYSIS

The result of an approach developing learning motivation of upgrading to college students through based on ARCS Motivation Model in Baise University, according to the gained data is from experts and survey questionnaire, the researcher explains the procedures of data analysis as following:

1. The symbol for data analysis representative
2. Phases of data analysis
3. Results of data analysis

The Symbol for data analysis representative

\bar{X} : Mean

S.D : Standard Deviation

PNI_{modified} : Priority Need Index modified

N : Population

I : Importance or Desired State

D : Degree of success or Existence State

Data analysis sequence

Results of the analysis are divided into 3 phases:

Phase 1: Analyzing components of learning motivation of upgrading to college students in Baise University.

Phase 2: Analyzing existent condition, desired condition and PNI of learning motivation of upgrading to college students in Baise University.

Phase 3: Developing an approach to enhance learning motivation of upgrading to college students through based on ARCS Motivation Model in Baise University.

Result of data analysis

Phase 1: Analyzing components of learning motivation of upgrading to college students in Baise University, divided into 2 steps:

Step 1 The results of the analysis and synthesis of the components of learning motivation of upgrading to college students in Baise University consisting of 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution and 5) External influence.

Step 2 Evaluation the suitability components of learning motivation of upgrading to college students in Baise University. At table 17 Results of the evaluation of the suitability of the components of learning motivation of upgrading to college students by experts.

Table 17 Mean and level of Suitability of Components of Learning Motivation of Upgrading to College Students

Items	Components of Learning Motivation of Upgrading to College Students	\bar{X}	S.D.	Level
1	Knowledge value	4.81	0.46	Highest Suitable
2	Learning interest	4.85	0.44	Highest Suitable
3	Learning ability	4.84	0.44	Highest Suitable
4	Achievement attribution	4.75	0.55	Highest Suitable
5	External influence	4.70	0.50	Highest Suitable
	Total	4.79	0.48	Highest Suitable

From the table 17, it was found that the components of Learning Motivation of Upgrading to College Students in Baise University were level overall at the highest (\bar{x} =4.79) When considering each aspect, it was found that the suitability levels were ranked from highest to lowest as follows 1) Learning interest highest (\bar{x} =4.85), 2) Learning ability highest (\bar{x} =4.84), 3) Knowledge value highest (\bar{x} =4.81), 4) Achievement attribution highest (\bar{x} =4.75) and 5) External influence highest (\bar{x} =4.70).

Phase 2: Analyzing existent, desired state and PNI of learning motivation of upgrading to college students in Baise University.

Table 18 The existent condition, desire condition and PNI_{modified} of Components of learning motivation of upgrading to college students in Baise University. Classified by components

Component	Existent condition			Desire condition			PNI _{modified}	Order Priority Needs
	\bar{X}	S.D.	Interpret	\bar{X}	S.D.	Interpret		
1. Knowledge value	2.32	0.68	Low	4.85	0.31	Very High	1.09	1
2. Learning interest	2.41	0.73	Low	4.93	0.22	Very High	1.05	2
3. Learning ability	2.50	0.69	Low	4.89	0.24	Very High	0.96	3
4. Achievement attribution	2.76	0.64	Medium	4.84	0.34	Very High	0.75	4
5. External influence	2.78	0.70	Medium	4.81	0.34	Very High	0.73	5

Total	2.55	0.69	Medium	4.86	0.29	Very High	--	--
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From the table 18 it was found that the existent condition of learning motivation of upgrading to college students were level overall at the medium (From the table 18 it was found that the existent condition of learning motivation of upgrading to college students were level overall at the medium (\bar{x} = 2.55). Considering each aspect, it was found that the existent condition levels were ranked from highest to lowest as follows: 1) External influence 2) Achievement attribution 3) Learning ability 4) Learning interest and 5) Knowledge value.

The desired condition of learning motivation of upgrading to college students were level overall at the very high (\bar{x} = 4.86). Considering each aspect, it was found that the desired condition levels were ranked from highest to lowest as follows: 1) Learning interest 2) Learning ability 3) Knowledge value 4) Achievement attribution and 5) External influence.

The priority need index modified ($PNI_{modified}$), the order of priority need index modified the first, Knowledge value, the second, Learning interest, the third, Learning ability, the fourth, Achievement attribution and the fifth, External influence.

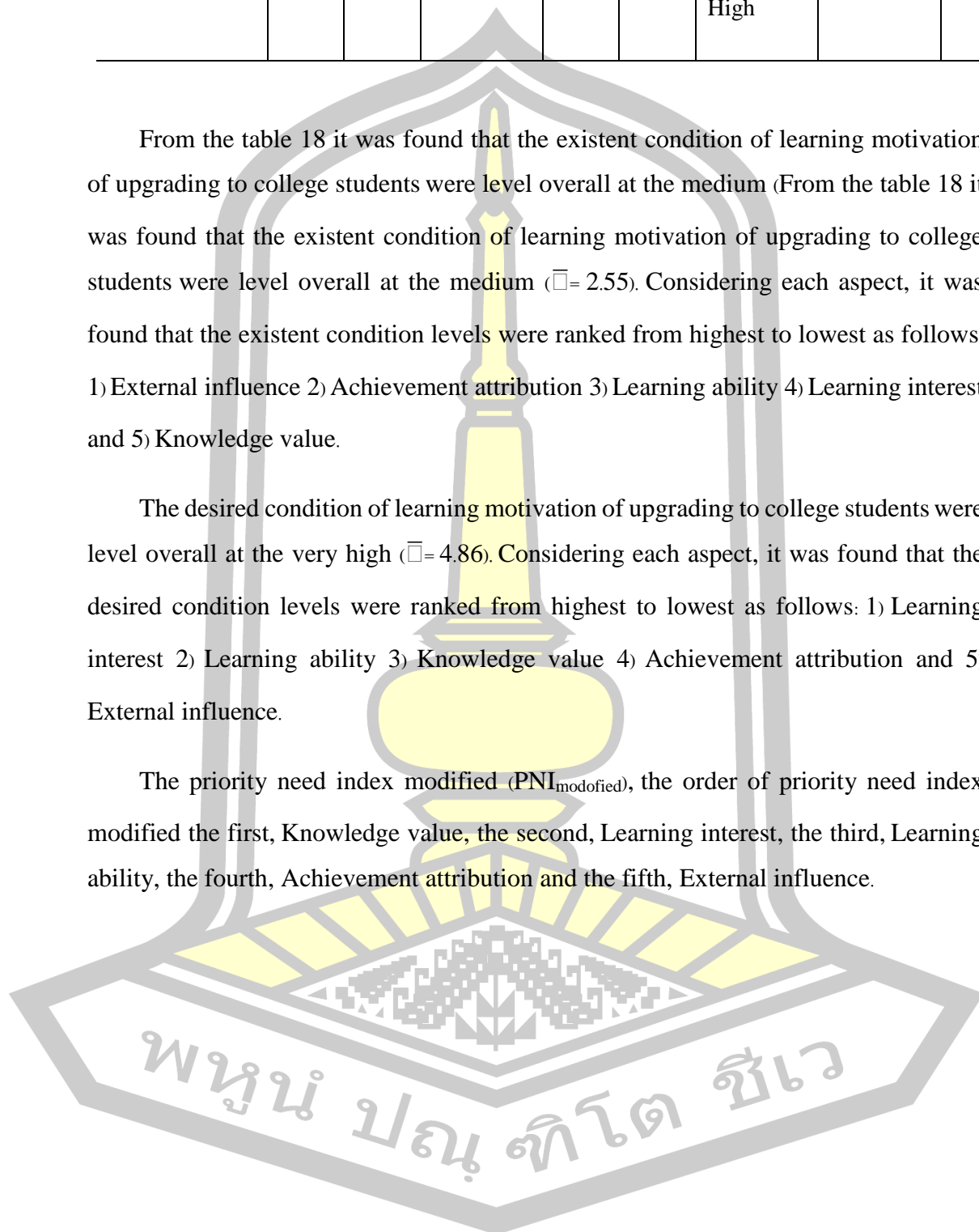


Table 19 The existent condition, desire condition and PNI_{modified} of Components of learning motivation of upgrading to college students in Baise University. Classified by items of component of Knowledge value

Component	Existent condition			Desire condition			PNI_{modified}	Order Priority Needs
	\bar{X}	S.D.	Interpret	\bar{X}	S.D.	Interpret		
1. Students believe that knowledge is valuable in itself and are curious about learning it	2.31	0.67	Low	4.78	0.39	Very High	1.07	4
2. Students believe that learning can help them solve problems or improve the quality of life in real life	2.35	0.66	Low	4.84	0.33	Very High	1.06	5
3. Students believe that they can contribute to society by learning	2.32	0.68	Low	4.85	0.33	Very High	1.09	2

4.Students use learning as a means to pursue and realize their personal values	2.33	0.68	Low	4.86	0.31	Very High	1.09	2
5.Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world	2.29	0.69	Low	4.93	0.21	Very High	1.15	1
Total	2.32	0.68	Low	4.85	0.31	Very High	--	--

From the table 19 it was found that the existent condition of Knowledge value were level overall at the Low (\bar{x} =2.32). Considering each item, it was found that the existent condition levels were ranked most Students believe that learning can help them solve problems or improve the quality of life in real life (\bar{x} =2.35), second most Students use learning as a means to pursue and realize their personal values (\bar{x} =2.33), and least Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world (\bar{x} =2.29).

The desired condition of Knowledge value were level overall at the very high (\bar{x} =4.85). Considering each item, it was found that the desired condition levels were ranked most Students see learning as a lifelong process that is essential for personal

growth and adaptation to a changing world (\bar{x} =4.93), second most Students use learning as a means to pursue and realize their personal values (\bar{x} =4.86), and least Students believe that knowledge is valuable in itself and are curious about learning it (\bar{x} =4.78).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world ($PNI_{\text{modified}} = 1.15$), the second, Students believe that they can contribute to society by learning ($PNI_{\text{modified}}=1.09$) and Students use learning as a means to pursue and realize their personal values ($PNI_{\text{modified}} =1.09$), and the least, Students believe that learning can help them solve problems or improve the quality of life in real life ($PNI_{\text{modified}} = 1.06$).

Table 20 The existent condition, desire condition and PNI_{modified} of Components of learning motivation of upgrading to college students in Baise University. Classified by items of component of Learning interest

Component	Existent condition			Desire condition			PNI_{modified}	Order Priority Needs
	\bar{X}	S.D.	Interpret	\bar{X}	S.D.	Interpret		
1. Students are interested in a particular subject or area of knowledge	2.35	0.72	Low	4.85	0.37	Very High	1.06	4
2. Students are interested in the exploration and discovery of new knowledge,	2.53	0.66	Medium	4.86	0.34	Very High	0.92	5

new skills and new concepts								
3. Students are interested in applying their knowledge to real situations and solving real problems	2.38	0.76	Low	4.97	0.15	Very High	1.09	2
4. Students are interested in learning with others, sharing knowledge and solving problems collaboratively	2.41	0.72	Low	4.99	0.11	Very High	1.07	3
5. Students are interested in choosing their own learning objectives and resources and learning at their own pace	2.37	0.78	Low	4.98	0.15	Very High	1.10	1
Total	2.41	0.73	Low	4.93	0.22	Very High	--	--

From the table 20 it was found that the existent condition of Learning interest were level overall at the low (\bar{x} =2.41). Considering each item, it was found that the existent condition levels were ranked most, Students are interested in the exploration and discovery of new knowledge, new skills and new concepts (\bar{x} = 2.53), second most Students are interested in learning with others, sharing knowledge and solving problems collaboratively (\bar{x} =2.41) and least, Students are interested in a particular subject or area of knowledge (\bar{x} =2.35).

The desired condition of competence of were level overall at the very high (\bar{x} =4.93). Considering each item, it was found that the desired condition levels were ranked most Students are interested in learning with others, sharing knowledge and solving problems collaboratively (\bar{x} = 4.99), second most, Students are interested in choosing their own learning objectives and resources and learning at their own pace (\bar{x} =4.98), and least, Students are interested in a particular subject or area of knowledge (\bar{x} =4.85).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, Students are interested in choosing their own learning objectives and resources and learning at their own pace ($PNI_{\text{modified}} = 1.10$), the second, Students are interested in applying their knowledge to real situations and solving real problems ($PNI_{\text{modified}}=1.09$) and the least, Students are interested in the exploration and discovery of new knowledge, new skills and new concepts ($PNI_{\text{modified}}=0.92$).

Table 21 The existent condition, desire condition and PNI_{modified} of Components of learning motivation of upgrading to college students in Baise University. Classified by items of component of Learning ability

Component	Existent condition			Desire condition			PNI_{modified}	Order Priority Needs
	\bar{X}	S.D.	Interpret	\bar{X}	S.D.	Interpret		
1.Students are confident in their ability to	2.53	0.66	Medium	4.86	0.34	Very High	0.92	5

complete specific learning tasks								
2.Students have the ability to plan and manage study time effectively	2.48	0.71	Low	4.92	0.17	Very High	0.98	2
3.Students have the ability to select and apply effective learning strategies	2.56	0.68	Medium	4.93	0.16	Very High	0.93	4
4.Students have the ability to adapt to new learning environments and challenges	2.47	0.71	Low	4.83	0.37	Very High	0.96	3
5.Students have the ability to monitor their own learning process and reflect on learning outcomes	2.45	0.70	Low	4.91	0.18	Very High	1.00	1
Total	2.50	0.69	Low	4.89	0.24	Very High	--	--

From the table 21 it was found that the existent condition of Learning ability were level overall at the low (\bar{x} =2.50). Considering each item, it was found that the existent condition levels were ranked most, Students have the ability to select and apply effective learning strategies (\bar{x} =2.56), second most, Students are confident in their ability to complete specific learning tasks (\bar{x} =2.53), and least, Students have the ability to monitor their own learning process and reflect on learning outcomes (\bar{x} =2.45).

The desired condition of competence of were level overall at the very high (\bar{x} =4.89). Considering each item, it was found that the existent condition levels were ranked most, Students have the ability to select and apply effective learning strategies (\bar{x} =4.93), second most, Students have the ability to plan and manage study time effectively (\bar{x} =4.92), and least, Students have the ability to adapt to new learning environments and challenges (\bar{x} =4.83).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, Students have the ability to monitor their own learning process and reflect on learning outcomes ($PNI_{\text{modified}}=1.00$), the second, Students have the ability to plan and manage study time effectively ($PNI_{\text{modified}}=0.98$), and least, Students are confident in their ability to complete specific learning tasks ($PNI_{\text{modified}}=0.92$).

Table 22 The existent condition, desire condition and PNI_{modified} of Components of learning motivation of upgrading to college students in Baise University. Classified by items of component of Achievement attribution

Component	Existent condition			Desire condition			PNI_{modified}	Order Priority Needs
	\bar{X}	S.D.	Interpret	\bar{X}	S.D.	Interpret		
1.Students attribute the learning	2.73	0.61	Medium	4.86	0.34	Very High	0.78	1

success or failure to individual effort								
2.Students attribute the success or failure in learning to an individual's inherent ability or intelligence	2.71	0.59	Medium	4.81	0.32	Very High	0.77	2
3.Students attribute the success or failure to the difficulty of the task itself	2.83	0.71	Medium	4.91	0.27	Very High	0.73	4
4.Students attribute the learning success or failure to chance or luck	2.75	0.63	Medium	4.77	0.42	Very High	0.73	5
5.Students attribute learning success or failure to supportive and disruptive	2.77	0.64	Medium	4.83	0.37	Very High	0.74	3

factors in the learning environment								
Total	2.76	0.64	Medium	4.84	0.34	Very High	--	--

From the table 22 it was found that the existent condition of Achievement attribution were level overall at the medium ($\bar{x}=2.76$). Considering each item, it was found that the existent condition levels were ranked most, Students attribute the success or failure to the difficulty of the task itself ($\bar{x}=2.83$), second most, Students attribute learning success or failure to supportive and disruptive factors in the learning environment ($\bar{x}=2.77$), and least, Students attribute the success or failure in learning to an individual's inherent ability or intelligence ($\bar{x}=2.71$).

The desired condition of competence of were level overall at the very high ($\bar{x}=4.84$). Considering each item, it was found that the existent condition levels were ranked most, Students attribute the success or failure to the difficulty of the task itself ($\bar{x}=4.91$), second most, Students attribute the learning success or failure to individual effort ($\bar{x}=4.86$), and least, Students attribute the learning success or failure to chance or luck ($\bar{x}=4.77$).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, Students attribute the learning success or failure to individual effort ($PNI_{\text{modified}}=0.78$), the second, Students attribute the success or failure in learning to an individual's inherent ability or intelligence ($PNI_{\text{modified}}=0.77$), and least, Students attribute the success or failure to the difficulty of the task itself, and Students attribute the learning success or failure to chance or luck ($PNI_{\text{modified}}=0.73$).

Table 23 The existent condition, desire condition and PNI_{modified} of Components of learning motivation of upgrading to college students in Baise University. Classified by items of component of External influence

Component	Existent condition			Desire condition			PNI _{modified}	Order Priority Needs
	\bar{X}	S.D.	Interpret	\bar{X}	S.D.	Interpret		
1.Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning	2.73	0.73	Medium	4.48	0.32	Very High	0.64	5
2.Students believe that cooperative learning, competition and social interaction among classmates can affect learning interest and engagement	2.84	0.64	Medium	4.91	0.42	Very High	0.73	3
3.Students believe that the values, expectations and learning atmosphere of the school affect learning	2.79	0.65	Medium	4.87	0.34	Very High	0.75	2
4.Students believe that the value society places on education and the values it places on a particular subject affect learning motivation	2.63	0.71	Medium	4.94	0.26	Very High	0.88	1
5.Students believe that the expectations, support and availability of learning resources provided by the family have an important impact on learning	2.91	0.76	Medium	4.83	0.34	Very High	0.66	4

Total	2.78	0.70	Medium	4.81	0.34	Very High		
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From the table 23 it was found that the existent condition of External influence were level overall at the medium ($\bar{x}=2.78$). Considering each item, it was found that the existent condition levels were ranked most, Students believe that the expectations, support and availability of learning resources provided by the family have an important impact on learning ($\bar{x}=2.91$), second most, Students believe that cooperative learning, competition and social interaction among classmates can affect learning interest and engagement ($\bar{x}=2.84$), and least, Students believe that the value society places on education and the values it places on a particular subject affect learning motivation ($\bar{x}=2.63$).

The desired condition of competence of were level overall at the very high ($\bar{x}=4.81$). Considering each item, it was found that the existent condition levels were ranked most, Students believe that the value society places on education and the values it places on a particular subject affect learning motivation ($\bar{x}=4.94$), second most, Students believe that cooperative learning, competition and social interaction among classmates can affect learning interest and engagement ($\bar{x}=4.91$), and least, Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning ($\bar{x}=4.48$).

The priority need index modified (PNI_{modified}), the order of priority need index modified the first, Students believe that the value society places on education and the values it places on a particular subject affect learning motivation ($PNI_{\text{modified}}=0.88$), the second, Students believe that the values, expectations and learning atmosphere of the school affect learning ($PNI_{\text{modified}}=0.75$), and least, Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning ($PNI_{\text{modified}}=0.64$).

Phase 3: Developing an approach to enhance learning motivation of upgrading to college students through based on ARCS Motivation Model in Baise University.

Step 1: The research study and summarize the best practice schools of developing learning motivation of upgrading to college students.

From the research results, this study has identified key issues and basic needs around the importance ranking and current status of the modified Demand index (PNI modified) and the expected conditions of learning motivation of upgrading to college students in Baise University, ranking 1-5 from the components. These findings will be used to construct an interview-based framework for developing an approach to enhance learning motivation of upgrading to college students in Baise University. The development of the approach will be based on interviews with 5 university administrators and teachers who exemplify best practices in their respective roles.

The results of the analysis of interview data conducted by the researchers were summarized for the development of an approach to develop learning motivation of upgrading to college students.

The current data analysis involves conducting content analysis on interview information obtained from interviewees (i.e., school administrators and relevant department heads) from 2 universities: Nanning Normal University, and Hezhou University. The researcher has selected Specific of 5 people who have all the qualifications according to the expert criteria as follows:

- 1) Expert in educational research is a teacher in a higher education institution teachers or educational personnel with a doctoral degree in the field of research or educational measurement and evaluation
- 2) Specialist in education administration and development who is a teacher in higher education institution with a doctoral degree in education administration
- 3) Educational Administration Specialist Be an Education

Administrator Educational institution administrators with a doctoral degree in educational administration Special.

Experts in examining this research Instrument include:

- 1) Professor Xu Shuye, Vice President, Nanning Normal University, Guangxi, China.
- 2) Professor Jiang Hongxing, Vice President, Hezhou University, Guangxi, China.
- 3) Professor Qin Chengbu, Director of Teaching Management, Nanning Normal University, Guangxi, China.
- 4) Professor Chen Yihu, Director of Teaching Management, Hezhou University, Guangxi, China.
- 5) Professor Pu Ricai, Director of Faculty of Teacher Education, Hezhou University, Guangxi, China.

Through interviews with the president of 2 universities and the leaders of relevant departments, this study gathered information regarding the method and approach of learning motivation of upgrading to college students. Utilizing a structured interview format, the researchers synthesized guidelines for developing learning motivation of upgrading to college students based on interviews conducted at the Student Affairs Office.

1. Knowledge value

The researchers interviewed school principals and leaders of relevant departments and summarized the learning motivation of upgrading to college students in terms of Knowledge value as follows:

"...As an educational manager, I firmly believe that the key to stimulating students' learning motivation lies in recognizing the intrinsic value. When students internally realize that learning satisfies their curiosity and helps them understand how the world operates, this intrinsic drive is ignited. For instance, by exploring the mysteries of scientific experiments, students gain not just knowledge but, more importantly, the joy

of discovering the unknown and solving problems. This joy is incomparable to external rewards and continuously propels students to explore new knowledge and keep learning. In today's rapidly changing society, lifelong learning has become an indispensable part of everyone. I encourage students to develop a concept of lifelong learning, making them realize that learning is not limited to school education but is an ongoing process. By providing diverse learning resources and opportunities, I strive to cultivate students' self-directed learning abilities, preparing them for the ever-changing future..."

(Expert 1, 10 January, 2024: Interview)

"...In my practice of educational management, I emphasize the practicality of knowledge. By integrating theory with practice, students can see the application of learned knowledge in real life, significantly boosting their learning motivation. For example, mathematics and science are not just academic subjects; they play crucial roles in solving everyday problems. I also encourage students to see how their students believe that they can contribute to society by learning. Whether through environmental projects or community service, letting students see that their knowledge and skills can help solve societal issues greatly enhances their learning motivation..."

(Expert 2, 10 January, 2024: Interview)

"...For me, the ultimate goal of education is to help students achieve self-worth. Learning allows students not only to acquire knowledge but more importantly, to discover their potential and capabilities through the process of challenging themselves and achieving goals. This process of self-actualization itself is a powerful intrinsic motivator. I believe that true learning motivation comes from students' recognition of the intrinsic value of knowledge. When students learn out of pure curiosity and a desire to understand the world, their efficiency and satisfaction with learning greatly increase. Thus, I am committed to creating an environment where students can freely explore and discover the joy of learning..."

(Expert 3, 16 January, 2024: Interview)

"...In my work, I always emphasize how students should apply their learning to contribute to society. Understanding that one's learning can have a positive impact on society not only enhances students' sense of responsibility but also boosts their learning motivation. This awareness of social contribution is an essential part of our education. I encourage students to develop an attitude towards lifelong learning. With technology and knowledge constantly advancing, lifelong learning has become key to adapting to societal changes. Through education, we aim not only to impart knowledge to students but more importantly, to cultivate their ability to learn, enabling them to continuously learn and grow in their future lives..."

(Expert 4, 16 January, 2024: Interview)

"...I believe that showing students the practical value of what they learn is an effective way to enhance learning motivation. Whether in career planning or daily life, the application of knowledge is ubiquitous. Through real-case scenarios and projects, I help students understand the connection between what they learn and the real world, enhancing their interest in learning. Achieving self-actualization through learning is the goal of many students. In my educational management, I encourage students to set personal goals and achieve them through learning. This process not only helps students realize their self-worth but also serves as an important source of their intrinsic motivation..."

(Expert 5, 16 January, 2024: Interview)

According to the interview with the president of 2 universities and the leaders of relevant departments, Experts consider it necessary to strengthen students' awareness of the importance of knowledge value. The following development guidelines are obtained: 1) Students believe that knowledge is valuable in itself and are curious about learning it, 2) Students believe that learning can help them solve problems or improve

the quality of life in real life, 3) Students believe that they can contribute to society by learning, 4) Students use learning as a means to pursue and realize their personal values, 5) Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world. These guidelines are designed to promote effective strategies that can improve the knowledge value of upgrading to college students.

2. Learning interest

The researchers interviewed school principals and leaders of relevant departments and summarized the learning motivation of upgrading to college students in terms of Learning interest as follows:

"...As an educational manager, I've observed that a student's interest in a specific subject is a powerful motivator for learning. When students are genuinely interested in a subject, they are more likely to engage deeply and persistently with the material. My approach involves identifying and nurturing each student's passions, making learning more relevant and engaging for them. I also believe in the importance of fostering an interest in exploration and discovery. Encouraging students to ask questions, experiment, and explore various topics beyond the curriculum can spark a love for learning that lasts a lifetime. This approach not only enhances their learning motivation but also develops critical thinking and problem-solving skills..."

(Expert 1, 16 January, 2024: Interview)

"...In my experience, students are highly motivated when they see the practical applications of what they're learning. Demonstrating how theoretical knowledge can be applied in real-world scenarios helps students understand the value of their education and motivates them to learn more. I strive to incorporate practical projects and real-life examples into my teaching to make learning more meaningful. Interest in Cooperative Learning: "I also advocate for the use of cooperative learning strategies in the classroom. Working in groups allows students to learn from each other, share ideas, and develop

social skills. This collaborative environment not only enhances their interest in learning but also fosters a sense of community and belonging among students..."

(Expert 2, 16 January, 2024: Interview)

"...Encouraging students to explore and discover on their own is a cornerstone of my educational philosophy. By providing opportunities for independent research and inquiry-based learning, I help students develop a natural curiosity and a desire to learn more about the world around them. This approach promotes a deeper understanding and a more personal connection to the material. Fostering an interest in self-directed learning is crucial for student motivation. I believe in empowering students to take charge of their own learning by setting their own goals and finding resources to achieve them. This autonomy builds confidence and a sense of responsibility, leading to more engaged and motivated learners..."

(Expert 3, 10 January, 2024: Interview)

"...Identifying and cultivating a student's interest in specific subjects is key to enhancing their learning motivation. I focus on creating a curriculum that is flexible and adaptable to student interests, allowing them to dive deeper into topics they are passionate about. This personalized approach makes learning more enjoyable and effective. Promoting self-directed learning among students is another area I focus on. By teaching students how to learn independently, set their own learning objectives, and evaluate their progress, I help them develop lifelong learning skills. This not only boosts their current academic motivation but also prepares them for continuous learning throughout their lives..."

(Expert 4, 16 January, 2024: Interview)

"...I've found that students are particularly motivated when they understand the practical implications of their studies. Integrating hands-on activities and real-world problem-solving into the curriculum allows students to see the direct impact of their

learning, increasing their engagement and enthusiasm for the subject matter. Creating opportunities for students to engage in cooperative learning has been a focus of mine. Through group projects and collaborative assignments, students can experience the benefits of diverse perspectives and collective problem-solving. This not only enhances their academic skills but also builds a supportive learning community..."

(Expert 5, 10 January, 2024: Interview)

According to the interview with the president of 2 universities and the leaders of relevant departments, Experts consider it necessary to strengthen students' awareness of the importance of Learning interest. The following development guidelines are obtained: 1) Students are interested in a particular subject or area of knowledge, 2) Students are interested in the exploration and discovery of new knowledge, new skills and new concepts, 3) Students are interested in applying their knowledge to real situations and solving real problems, 4) Students are interested in learning with others, sharing knowledge and solving problems collaboratively, 5) Students are interested in choosing their own learning objectives and resources and learning at their own pace. These guidelines are designed to promote effective strategies that can improve the Learning interest of upgrading to college students.

3. Learning ability

The researchers interviewed school principals and leaders of relevant departments and summarized the learning motivation of upgrading to college students in terms of Learning ability as follows:

"...In my years of experience in educational management, I've found that fostering a strong sense of self-efficacy in students is crucial for enhancing their learning motivation. When students believe in their ability to succeed in specific tasks, they are more likely to take on challenges and persist through difficulties. My role involves creating a supportive environment that acknowledges their efforts and achievements, thereby boosting their confidence and willingness to learn. Another key aspect is

teaching students effective time management skills. The ability to plan and control how one's time is spent on specific activities directly impacts learning efficiency and motivation. I encourage students to set realistic goals, prioritize tasks, and take breaks appropriately, which in turn helps them manage their learning process more effectively and reduces feelings of being overwhelmed..."

(Expert 1, 10 January, 2024: Interview)

"...I emphasize the importance of using effective learning strategies among students. The ability to select and apply appropriate strategies for different learning tasks can significantly enhance the learning process. By introducing various cognitive and metacognitive strategies, such as summarizing, questioning, and self-testing, I help students become more active and engaged learners. Adaptive learning ability is also vital for student motivation. This involves adjusting one's learning strategies based on the task at hand and feedback received. I support students in developing this ability by providing them with opportunities to reflect on their learning experiences and make necessary adjustments, fostering a more personalized and effective learning experience..."

(Expert 2, 10 January, 2024: Interview)

"...The ability to self-monitor and reflect on one's learning process is fundamental for student motivation. It enables students to understand their learning habits, identify areas for improvement, and celebrate successes. I encourage regular self-reflection sessions where students can assess their progress and set future learning goals, promoting a cycle of continuous improvement and motivation. Building on self-efficacy, I believe in reinforcing students' belief in their capabilities by setting achievable challenges and providing constructive feedback. Recognizing their progress and efforts plays a significant role in enhancing their self-efficacy, which in turn, motivates them to engage more deeply with their learning..."

(Expert 3, 16 January, 2024: Interview)

"...Effective time management is a skill that significantly influences students' learning motivation. By teaching students how to organize their study schedules and make efficient use of their time, we can help them feel more in control of their learning, reducing stress and increasing their motivation to learn. The ability to utilize various learning strategies effectively is crucial for academic success. I focus on teaching students how to adapt their learning strategies based on the subject matter and their personal learning styles, which enhances their understanding and retention of information, thereby motivating them to continue learning..."

(Expert 4, 16 January, 2024: Interview)

"...Adaptability in learning is key to maintaining high levels of motivation among students. I advocate for a learning environment that challenges students to adapt their approaches based on new information and feedback. This not only prepares them for the unpredictability of real-world problems but also keeps their learning experiences fresh and engaging. Encouraging students to self-monitor and reflect is a practice I prioritize. This ability allows students to take ownership of their learning, recognize their achievements, and identify areas where they can improve. By fostering a reflective learning culture, students are more likely to stay motivated and committed to their educational journey..."

(Expert 5, 16 January, 2024: Interview)

According to the interview with the president of 2 universities and the leaders of relevant departments, Experts consider it necessary to strengthen students' awareness of the importance of Learning ability. The following development guidelines are obtained: 1) Students are confident in their ability to complete specific learning tasks, 2) Students have the ability to plan and manage study time effectively, 3) Students have

the ability to select and apply effective learning strategies, 4) Students have the ability to adapt to new learning environments and challenges, 5) Students have the ability to monitor their own learning process and reflect on learning outcomes. These guidelines are designed to promote effective strategies that can improve the Learning ability of upgrading to college students.

4. Achievement attribution

The researchers interviewed school principals and leaders of relevant departments and summarized the learning motivation of upgrading to college students in terms of Achievement attribution as follows:

"...In my experience, emphasizing the importance of effort over innate ability has a profound impact on students' learning motivation. I always encourage students to believe that their hard work and dedication can lead to improvement and success, regardless of their initial skill level. This perspective helps to cultivate a growth mindset, where challenges are seen as opportunities to learn and grow. While recognizing the role of effort, I also acknowledge the importance of ability attribution in student achievement. However, I frame it in a way that abilities can be developed through persistent effort and effective learning strategies. By doing so, students are motivated to engage in their learning actively, knowing that they have the power to enhance their abilities over time..."

(Expert 1, 16 January, 2024: Interview)

"...I believe that how students attribute their success or failure to the difficulty of a task can significantly influence their motivation. I teach students to view challenging tasks as achievable with the right strategies and effort, rather than seeing them as insurmountable obstacles. This approach encourages resilience and a willingness to tackle difficult subjects. Attributing success to luck can undermine students' belief in their control over learning outcomes. I strive to shift this mindset by highlighting the role of preparation and opportunity in what might initially seem like 'lucky'

achievements. This helps students to see the value of consistent effort and to take ownership of their learning process..."

(Expert 2, 10 January, 2024: Interview)

"...Understanding the impact of situational factors on learning outcomes is crucial. I guide students to analyze how external conditions, such as the learning environment or available resources, affect their performance. This awareness encourages them to seek out or create optimal conditions for their learning, thereby enhancing their motivation. Reinforcing the belief that effort is a key determinant of success is central to my educational philosophy. By celebrating effort and progress rather than just outcomes, students learn to value the learning process itself. This not only boosts their motivation but also builds resilience against future challenges..."

(Expert 3, 16 January, 2024: Interview)

"...I focus on helping students understand that abilities are not fixed but can be expanded through learning and practice. This perspective motivates them to engage with their studies actively, with the confidence that they are capable of mastering new skills and knowledge. Encouraging students to see the difficulty of a task as a measure of their current level of understanding, rather than a fixed barrier, is key. This approach motivates them to seek out learning strategies that can help them overcome these challenges, fostering a proactive and empowered attitude towards learning..."

(Expert 4, 10 January, 2024: Interview)

"...While it's natural for students to sometimes attribute their success to luck, I guide them to recognize the efforts and decisions that positioned them for that 'lucky' break. This helps students appreciate the importance of preparedness and active engagement in creating their own 'luck' through learning. I teach students to critically assess how situational factors influence their learning and to take proactive steps to mitigate any negative impacts. Whether it's seeking additional resources, changing study

environments, or collaborating with peers, understanding the role of the situation empowers students to take control of their learning experiences..."

(Expert 5, 16 January, 2024: Interview)

According to the interview with the president of 2 universities and the leaders of relevant departments, Experts consider it necessary to strengthen students' awareness of the importance of Achievement attribution. The following development guidelines are obtained: 1) Students attribute the learning success or failure to individual effort, 2) Students attribute the success or failure in learning to an individual's inherent ability or intelligence, 3) Students attribute the success or failure to the difficulty of the task itself, 4) Students attribute the learning success or failure to chance or luck, 5) Students attribute learning success or failure to supportive and disruptive factors in the learning environment. These guidelines are designed to promote effective strategies that can improve the Achievement attribution of upgrading to college students.

5. External influence

The researchers interviewed school principals and leaders of relevant departments and summarized the learning motivation of upgrading to college students in terms of External influence as follows:

"...In my years of educational management, I've seen firsthand the profound impact that teacher support can have on student motivation. Teachers who are approachable, understanding, and genuinely interested in their students' success can ignite a passion for learning that goes beyond the classroom. My approach has always been to foster a supportive and encouraging environment where students feel valued and inspired. School culture plays a crucial role in shaping students' attitudes towards learning. A positive, inclusive, and respectful school culture can significantly enhance students' motivation. In my practice, I strive to cultivate a culture that celebrates diversity, encourages academic curiosity, and supports holistic development. This environment

not only motivates students but also prepares them for the complexities of the real world..."

(Expert 1, 10 January, 2024: Interview)

"...The interactions students have with their classmates can greatly influence their learning motivation. Positive peer relationships and a collaborative learning environment encourage students to engage more deeply with their studies. I emphasize the importance of teamwork and mutual respect in the classroom, which has shown to improve student motivation and academic performance. Societal expectations and values shape how students perceive the importance of education. In my experience, when societal values align with the goals of education, students are more motivated to learn. Therefore, I advocate for community engagement and real-world learning experiences that reflect societal values, helping students understand the relevance and impact of their education..."

(Expert 2, 10 January, 2024: Interview)

"...The family environment is foundational to a student's learning motivation. A supportive family that values education can significantly influence a student's desire to learn and succeed academically. In my work, I encourage parental involvement and provide resources for families to support their children's education, recognizing that a collaborative effort between school and home is essential for student motivation. Teacher support is not just about academic assistance; it's about building relationships based on trust and respect. Teachers who take the time to understand their students' individual needs and challenges can tailor their support effectively, enhancing student motivation. My philosophy is that every interaction with a student is an opportunity to motivate and inspire..."

(Expert 3, 16 January, 2024: Interview)

"...A nurturing and supportive school culture is vital for student motivation. Schools that prioritize a positive learning environment, where students feel safe, respected, and part of a community, see higher levels of student engagement and motivation. My focus is on creating such an environment, where students are encouraged to take intellectual risks and explore their interests. The role of the family in motivating students cannot be overstated. Families that actively participate in their child's education, showing interest in their learning and celebrating their achievements, foster a home environment that values education. I work closely with families to ensure they have the tools and knowledge to support their children's learning journey..."

(Expert 4, 16 January, 2024: Interview)

"...Students are greatly influenced by the societal expectations and values they observe. When society places a high value on education and lifelong learning, students are more likely to be motivated to achieve academically. My approach involves integrating societal issues and values into the curriculum, making learning more relevant and engaging for students. The quality of classmate interaction is a significant factor in student motivation. Encouraging positive social interactions and creating opportunities for students to learn from each other can enhance the learning experience. I promote group projects and peer learning activities that foster a sense of belonging and mutual support among students, which in turn boosts their motivation to learn..."

(Expert 5, 16 January, 2024: Interview)

According to the interview with the president of 2 universities and the leaders of relevant departments, Experts believe that students should be taught to put the role of External influences on learning in perspective. The following development guidelines are obtained: 1) Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning, 2) Students believe that cooperative learning, competition and social interaction among classmates can affect learning interest and engagement, 3) Students believe that the values, expectations

and learning atmosphere of the school affect learning, 4) Students believe that the value society places on education and the values it places on a particular subject affect learning motivation, 5) Students believe that the expectations, support and availability of learning resources provided by the family have an important impact on learning. These guidelines are designed to promote effective strategies that can improve the External influence of upgrading to college students.

Through interviews with school principals and heads of relevant departments, the researchers conducted a comprehensive survey on the components of learning motivation of upgrading to college students. The aim is to develop guidelines for the development of an approach to develop the learning motivation of upgrading to college students in Baise University. Table 24-28 lists the test results.

Table 24 Analysis results of improving Knowledge value of upgrading to college students in Baise University

Existent condition	Research Result (Best Practice)	Developing Approach	
		Existent condition	(Best Practice)
Desire condition		Desire condition	
Indicator 1: Intrinsic value	Indicator 1: Intrinsic value	1.Experience	1.Experience
1.Enhance students' awareness of the value of knowledge itself	1.Enhance students' awareness of the value of knowledge itself	2.Present Worth	2.Present Worth
2.Students get spiritual satisfaction through the acquisition and mastery of knowledge	2.Students get spiritual satisfaction through the acquisition and mastery of knowledge	3.Future Usefulness	3.Future Usefulness

3.Knowledge promotes the all-round development of students	3.Knowledge promotes the all-round development of students	4.Need Matching	4.Need Matching
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Table 24 (continued)

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
Indicator 2: Practical value	Indicator 2: Practical value	5.Modeling	5.Modeling
1.Career development	1.Career development	6.Choice	6.Choice
2.Solve practical problems	2.Solve practical problems		
1. Improve social adaptability	3.Improve social adaptability		
Indicator 3: Social contribution value	Indicator 3: Social contribution value		
1.Promote social progress	1.Promote social progress		
2.Strengthen social cohesion	2.Strengthen social cohesion		
3.Increase students' awareness and participation	3.Increase students' awareness and participation		
Indicator 4: Self-actualization value	Indicator 4: Self-actualization value		
1.The improvement of students' ability	1.The improvement of students' ability		

2.Spiritual growth	2.Spiritual growth		
3.Realize life's potential	3.Realize life's potential		
Indicator 5: Lifelong learning value	Indicator 5: Lifelong learning value		
1.Increased ability to adapt	1.Increased ability to adapt		

Table 24 (continued)

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
2.The expansion of personal interests 3.Community participation and contribution	2.The expansion of personal interests 3.Community participation and contribution		

From the analysis results of Table 24, regarding the development of upgrading to college students' learning motivation in Baise University, the following points can be found in terms of Knowledge value: 1) Students believe that knowledge is valuable in itself and are curious about learning it, 2) Students believe that learning can help them solve problems or improve the quality of life in real life, 3) Students believe that they can contribute to society by learning, 4) Students use learning as a means to pursue and realize their personal values, 5) Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world. Based on these findings, the Knowledge value of upgrading to college students should include the

following aspects: 1) Experience, 2) Present Worth, 3) Future Usefulness, 4) Need Matching, 5) Modeling, 6) Choice.

Table 25 Analysis results of improving Learning interest of upgrading to college students in Baise University

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
Indicator 1: Subject interest	Indicator 1: Subject interest	1.Incongruity, Conflict	1.Incongruity, Conflict
1.Content interest	1.Content interest	2.Concreteness	2.Concreteness
2.Activity interest	2.Activity interest	3.Variability	3.Variability
3.Applied interest	3.Applied interest	4.Humor	4.Humor
Indicator 2: Exploration and discovery interest	Indicator 2: Exploration and discovery interest	5.Inquiry	5.Inquiry
1.Curiosity driven	1.Curiosity driven	6.Participation	6.Participation
2.Development of critical thinking	2.Development of critical thinking		
3.Innovation and creation	3.Innovation and creation		

Indicator 3: Interest in practical application	Indicator 3: Interest in practical application		
1. Practical experience	1. Practical experience		
2. Solve practical problems	2. Solve practical problems		
3. Interdisciplinary comprehensive application	3. Interdisciplinary comprehensive application		

Table 25 (continued)

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
Indicator 4: Interest in cooperative learning	Indicator 4: Interest in cooperative learning		
1. Teamwork and communication	1. Teamwork and communication		
2. Encourage mutual assistance and support among students	2. Encourage mutual assistance and support among students		
3. Common purpose and responsibility	3. Common purpose and responsibility		
Indicator 5: Interest in self-directed learning	Indicator 5: Interest in self-directed learning		

1.Students' autonomy and choice in learning	1.Students' autonomy and choice in learning	
2.Students evaluate learning outcomes and adjust learning strategies	2.Students evaluate learning outcomes and adjust learning strategies	
3.The quest for continuous learning and adaptation to change	3.The quest for continuous learning and adaptation to change	

From the analysis results of Table 25, regarding the development of upgrading to college students' learning motivation in Baise University, the following points can be found in terms of Learning interest: 1) Students are interested in a particular subject or area of knowledge, 2) Students are interested in the exploration and discovery of new knowledge, new skills and new concepts, 3) Students are interested in applying their knowledge to real situations and solving real problems, 4) Students are interested in learning with others, sharing knowledge and solving problems collaboratively, 5) Students are interested in choosing their own learning objectives and resources and learning at their own pace are curious to learn it, the Learning interest of upgrading to college students should include the following aspects: 1) Incongruity, Conflict, 2) Concreteness, 3) Variability, 4) Humor, 5) Inquiry, 6) Participation.

Table 26 Analysis results of improving Learning ability of upgrading to college students in Baise University

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)

Indicator 1: Self-efficacy	Indicator 1: Self-efficacy	1.Learning Requirements	1.Learning Requirements
1.Confidence in the ability to perform tasks	1.Confidence in the ability to perform tasks	2.Difficulty	2.Difficulty
2.Confidence in mastering and applying effective learning strategies	2.Confidence in mastering and applying effective learning strategies	3.Expectations	3.Expectations
3.The ability to self-regulate	3.The ability to self-regulate	4.Attributions	4.Attributions
Indicator 2: Time management ability	Indicator 2: Time management ability	5.Self-Confidence	5.Self-Confidence
1.Plan and use the time to study effectively	1.Plan and use the time to study effectively		
2.Resource management capability	2.Resource management capability		
3.Learn environmental management skills	3.Learn environmental management skills		
Indicator 3: Learning strategy use ability	Indicator 3: Learning strategy use ability		
1.The use of cognitive strategies	1.The use of cognitive strategies		
2.Mastery of metacognitive strategies	2.Mastery of metacognitive strategies		
3.Manage and utilize external resources to support learning	3.Manage and utilize external resources to support learning		

Indicator 4: Adaptive learning ability	Indicator 4: Adaptive learning ability		
1.Flexible use of learning strategies	1.Flexible use of learning strategies		
2.Information processing capability	2.Information processing capability		

Table 26 (continued)

Existent condition	Research (Best Practice)	Result	Developing Approach	
			Existent condition	(Best Practice)
Desire condition			Desire condition	(Best Practice)
3.Environmental adaptation and resource utilization	3.Environmental adaptation and resource utilization			
Indicator 5 : Self-monitor and reflect ability	Indicator 5 : Self-monitor and reflect ability			
1.Monitoring of learning progress	1.Monitoring of learning progress			
2.Evaluation and adjustment of learning strategies	2.Evaluation and adjustment of learning strategies			
3.Reflect on the learning process and results	3.Reflect on the learning process and results			

From the analysis results of Table 26, regarding the development of upgrading to college students' learning motivation in Baise University, the following points can be found in terms of Learning ability: 1) Students are confident in their ability to complete specific learning tasks, 2) Students have the ability to plan and manage study time effectively, 3) Students have the ability to select and apply effective learning strategies, 4) Students have the ability to adapt to new learning environments and challenges, 5) Students have the ability to monitor their own learning process and reflect on learning outcomes, the Learning ability of upgrading to college students should include the following aspects: 1) Learning Requirements, 2) Difficulty, 3) Expectations, 4) Attributions, 5) Self-Confidence

Table 27 Analysis results of improving Achievement attribution of upgrading to college students in Baise University

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
Indicator 1: Effort attribution 1.Reinforcement of intrinsic motivation 2.Persistent and challenging tasks to face 3.By working hard to overcome difficulties and achieve goals	Indicator 1: Effort attribution 1.Reinforcement of intrinsic motivation 2.Persistent and challenging tasks to face 3.By working hard to overcome difficulties and achieve goals	1.Natural Consequences 2.Unexpected Rewards 3.Positive Outcomes 4.Negative Influences	1.Natural Consequences 2.Unexpected Rewards 3.Positive Outcomes 4.Negative Influences

Indicator 2: Ability attribution	Indicator 2: Ability attribution	5.Scheduling	5.Scheduling
1.Have confidence in your ability to complete specific tasks	1.Have confidence in your ability to complete specific tasks		
2.Learn for the pleasure and satisfaction of learning itself	2.Learn for the pleasure and satisfaction of learning itself		
3.Attitude towards challenge	3.Attitude towards challenge		

Table 27 (continued)

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
Indicator 3: Task difficulty attribution	Indicator 3: Task difficulty attribution		
1.Be willing to accept new challenges	1.Be willing to accept new challenges		
2.Opportunities to learn and grow from experiences	2.Opportunities to learn and grow from experiences		
3.The effects of mood and self-esteem	3.The effects of mood and self-esteem		
Indicator 4: Luck attribution	Indicator 4: Luck attribution		

1.Effects on an individual's sense of control	1.Effects on an individual's sense of control	
2.May weaken an individual's intrinsic motivation to learn	2.May weaken an individual's intrinsic motivation to learn	
3.Attitudes and coping strategies towards failure	3.Attitudes and coping strategies towards failure	
Indicator 5: Situation attribution	Indicator 5: Situation attribution	
1.Environmental and external conditions	1.Environmental and external conditions	

Table 27 (continued)

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
2.Lack of control over the outcome	2.Lack of control over the outcome		
3.Effects of learning and behavior adjustment	3.Effects of learning and behavior adjustment		

From the analysis results of Table 27, regarding the development of upgrading to college students' learning motivation in Baise University, the following points can be found in terms of Achievement attribution: 1) Students attribute the learning success or failure to individual effort, 2) Students attribute the success or failure in learning to an individual's inherent ability or intelligence, 3) Students attribute the success or failure

to the difficulty of the task itself, 4) Students attribute the learning success or failure to chance or luck, 5) Students attribute learning success or failure to supportive and disruptive factors in the learning environment, the Achievement attribution of upgrading to college students should include the following aspects: 1) Natural Consequences, 2) Unexpected Rewards, 3) Positive Outcomes, 4) Negative Influences, 5) Scheduling.

Table 28 Analysis results of improving External influence of upgrading to college students in Baise University

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
Indicator 1: Teacher's support 1.Emotional support 2.Knowledge, ability, teaching level support 3.Classroom management and organization of learning activities	Indicator 1: Teacher's support 1.Emotional support 2.Knowledge, ability, teaching level support 3.Classroom management and organization of learning activities	1.Learning Requirements 2.Expectations 3.Need Matching 4.Present Worth	1.Learning Requirements 2.Expectations 3.Need Matching 4.Present Worth

Indicator 2: Classmate interaction 1.Academic exchange and assistance 2.Emotional support and encouragement 3.Resource sharing and cooperative learning	Indicator 2: Classmate interaction 1.Academic exchange and assistance 2.Emotional support and encouragement 3.Resource sharing and cooperative learning	5.Future Usefulness 6.Variability	5.Future Usefulness 6.Variability
Indicator 3: School culture 1.The educational objectives, teaching methods and daily behavior of the school	Indicator 3: School culture 1.The educational objectives, teaching methods and daily behavior of the school		

Table 28 (continued)

Existent condition Desire condition	Research Result (Best Practice)	Developing Approach	
		Existent condition Desire condition	(Best Practice)
2.Code of Conduct and campus customs 3.Learning and teaching atmosphere	2.Code of Conduct and campus customs 3.Learning and teaching atmosphere		
Indicator 4: Societal expectations and values 1.Moral and ethical standards	Indicator 4: Societal expectations and values 1.Moral and ethical standards		

2.Career and the definition of success	2.Career and the definition of success		
3.Participation and responsibility in society	3.Participation and responsibility in society		
Indicator 5: Family environment	Indicator 5: Family environment		
1.Encouragement from parents and family	1.Encouragement from parents and family		
2.Learning resources and conditions provided	2.Learning resources and conditions provided		
3.Expectations and values of family education	3.Expectations and values of family education		

From the analysis results of Table 28, regarding the development of upgrading to college students' learning motivation in Baise University, the following points can be found in terms of External influence: 1) Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning, 2) Students believe that cooperative learning, competition and social interaction among classmates can affect learning interest and engagement, 3) Students believe that the values, expectations and learning atmosphere of the school affect learning, 4) Students believe that the value society places on education and the values it places on a particular subject affect learning motivation, 5) Students believe that the expectations, support and availability of learning resources provided by the family have an important impact on learning, the External influence of upgrading to college students should include the following aspects: 1) Learning Requirements, 2) Expectations, 3) Need Matching, 4) Present Worth, 5) Future Usefulness, 6) Variability.

5 experts verified the applicability of the upgrading to college students' learning motivation development approaches, using the evaluation table of upgrading to college

students' learning motivation development strategy compiled in this study. The data analysis results are shown in Table 29.

Table 29 Results of analyzing, validating, and confirming the Suitability of approaches to develop the learning motivation of upgrading to college *students in Baise University*

The approach to developing the learning motivation of upgrading to college students in Baise University based on ARCS Motivation Model	Suitability		
	\bar{x}	S.D.	Level of ability
1.Knowledge value			
1) Experience	4.69	0.32	Highest
2) Present Worth	4.71	0.33	Highest
3) Future Usefulness	4.73	0.35	Highest

Table 29 (continued)

The approach to developing the learning motivation of upgrading to college students in Baise University based on ARCS Motivation Model	Suitability		
	\bar{x}	S.D.	Level of ability
4) Need Matching	4.80	0.39	Highest
5) Modeling	4.70	0.32	Highest
6) Choice	4.75	0.36	Highest
2.Learning interest			
1) Incongruity, Conflict	4.73	0.35	Highest
2) Concreteness	4.75	0.36	Highest
3) Variability	4.85	0.41	Highest

4) Humor	4.70	0.33	Highest
5) Inquiry	4.82	0.40	Highest
6) Participation	4.67	0.39	Highest
3.Learning ability			
1) Learning Requirements	4.84	0.41	Highest
2) Difficulty	4.68	0.45	Highest
3) Expectations	4.73	0.37	Highest
4) Attributions	4.80	0.39	Highest
5) Self-Confidence	4.86	0.45	Highest
4.Achievement attribution			
1) Natural Consequences	4.73	0.41	Highest
2) Unexpected Rewards	4.69	0.37	Highest
3) Positive Outcomes	4.84	0.34	Highest
4) Negative Influences	4.82	0.43	Highest
5) Scheduling	4.83	0.36	Highest
5.External influence			
1) Learning Requirements	4.68	0.38	Highest
2) Expectations	4.75	0.45	Highest
3) Need Matching	4.69	0.51	Highest
4) Present Worth	4.83	0.36	Highest
5) Future Usefulness	4.77	0.42	Highest

6) Variability	4.75	0.38	Highest
Total	4.76	0.39	Highest

From Table 29, the experts' examination and confirmation of the applicability of the approaches to develop the learning motivation of upgrading to college students in Baise University shows that all the approaches have the highest applicability. The experts provided additional advice, suggesting that each approach should have complementary activities such as 1) Experience, 2) Present Worth, 3) Future Usefulness, 4) Need Matching, 5) Modeling, 6) Choice, 7) Incongruity, Conflict, 8) Concreteness, 9) Variability, 10) Humor, 11) Inquiry, 12) Participation, 13) Learning Requirements, 14) Difficulty, 15) Expectations, 16) Attributions, 17) Self-Confidence, 18) Natural Consequences, 19) Unexpected Rewards, 20) Positive Outcomes, 21) Negative Influences, 22) Scheduling, 23) Learning Requirements, 24) Expectations, 25) Need Matching, 26) Present Worth, 27) Future Usefulness, 28) Variability.

Step 2: Design an approach developing learning motivation of upgrading to college students in Baise University.

The researchers used the results of the Phrase II Priority Demand Index analysis as data for drafting an approach to improve the learning motivation of upgrading to college students in Baise University. The research finds that the priority demands for improving the learning motivation of upgrading to college students in Baise University are as follows:

Knowledge value ($PNI_{\text{modified}}=1.09$). It comprises 5 indicators, including the Intrinsic value, Practical value, Social contribution value, Self-actualization value, and Lifelong learning value.

Learning interest ($PNI_{\text{modified}}=1.05$). It comprises 5 indicators, including the Subject interest, Exploration and discovery interest, Interest in practical application, Interest in cooperative learning and Interest in self-directed learning.

Learning ability ($PNI_{\text{modified}}=0.96$). It comprises 5 indicators, including the Self-efficacy, Time management ability, Learning strategy use ability, Adaptive learning ability, and Self-monitor and reflect ability.

Achievement attribution ($PNI_{\text{modified}}=0.75$). It comprises 5 indicators, including the Effort attribution, Ability attribution, Task difficulty attribution, Luck attribution, and Situation attribution.

External influence ($PNI_{\text{modified}}=0.73$). It comprises 5 indicators, including the Teacher's support, Classmate interaction, School culture, Societal expectations and values, and Family environment.

From the research results, this study identifies key issues and basic needs around the importance ranking of the modified Needs Index (PNI modified), the current situation, and the expected conditions of learning motivation of upgrading to college students in Baise University. These issues are ranked 1-5 from the components. These findings will be used to construct an interview-based framework for developing an approach aimed at developing learning motivation of upgrading to college students in Baise University. The development of this project will be based on interviews with 5 university administrators and teachers who exemplify best practices in their respective roles.

The current data analysis involves conducting content analysis on interview information obtained from interviewees. The researcher has selected Specific of 5 people who have all the qualifications according to the expert criteria as follows:

1) Expert in educational research is a teacher in a higher education institution teachers or educational personnel with a doctoral degree in the field of research or educational measurement and evaluation

2) Specialist in education administration and development who is a teacher in higher education institution with a doctoral degree in education administration

3) Educational Administration Specialist Be an Education Administrator Educational institution administrators with a doctoral degree in educational administration Special. Experts in examining this research Instrument include: Experts in assessing the suitability, accuracy and feasibility of the approach as follows:

- 1) Prof. Dr. Liu Fang, Vice President, Guangxi Baise University, China.
- 2) Prof. Dr. Cao Alin, Director of Academic Affairs Office, Baise University, Guangxi, China.
- 3) Asst. Prof. Dr. Wang Fang, Director of Center for Teaching Quality Evaluation, Baise University, Guangxi, China.
- 4) Asst. Prof. Dr. Song Bei, Director of Student Affairs, Baise University, Guangxi, China.
- 5) Asst. Prof. Dr. Yang Wengui, Dean of the College, Faculty of teacher education, Baise University, Guangxi, China.

The results of the data analysis from the interviews conducted by the researchers are summarized to be used in developing an approach to enhance the learning motivation of upgrading to college students in Baise University.

1. The components of the approach

Through the study of various documents and literature, researchers analyzed the components of an approach to develop the learning motivation of upgrading to college students in Baise University. The approach consists of four parts, as follows: 1) Principle, 2) Objective, 3) Content, 4) Development process, and 5) Evaluation. The opinions of the 5 university administrators regarding these components were unanimous, and are summarized as follows:

"...The approach for developing students' learning motivation should have clearly defined components. If the development plan is well-defined, it will serve as a guide for researcher to lead in the right direction. The studied components are considered clear and comprehensive..."

(Expert 1, 20 January, 2024: Interview)

"...The principle in development is something that emphasizes the importance of development. The development objective is crucial, and the development process should be appropriate and diverse. After development, it is essential to have a proper evaluation..."

(Expert 2, 20 January, 2024: Interview)

"...I agree with the components of the approach, which include principles, objectives, content, development process, and evaluation. These elements contribute to completeness..."

(Expert 3, 22 January, 2024: Interview)

"...The principle in development is to recognize the importance of development. The objective of development is crucial. The development process must be appropriate and diverse. When development is completed, evaluation must be conducted to ensure appropriateness..."

(Expert 4, 22 January, 2024: Interview)

"...The principles, objectives, contents, development processes, and evaluation of this approach are very comprehensive. I believe this approach can bring about improvement of students learning motivation..."

(Expert 5, 22 January, 2024: Interview)

2.Principle to develop learning motivation of upgrading to college students

Based on discussions with 5 university administrators regarding key issues in developing the learning motivation of upgrading to college students, the administrators agreed to adopt the ARCS Motivation Model to develop the learning motivation of upgrading to college students. The following excerpt illustrates this point:

"...In my view, capturing students' attention is the first critical step in enhancing their learning motivation. I employ various strategies to achieve this, such as integrating multimedia resources, interactive activities, and real-world problem-solving tasks into the curriculum. These methods help to stimulate students' curiosity and engage them more deeply in the learning process... Making learning relevant to students' lives and future goals is equally important. I strive to connect the curriculum with real-life applications and students' personal interests. By doing so, students can see the value of what they're learning and how it applies outside the classroom, which significantly boosts their motivation to learn..."

(Expert 1, 22 January, 2024: Interview)

"...Building students' confidence in their ability to succeed is a cornerstone of my teaching philosophy. I provide structured opportunities for success and gradually increase the difficulty of tasks to match students' skill levels. This approach helps students experience success incrementally, bolstering their confidence and willingness to take on new challenges... Ensuring students feel a sense of satisfaction from their learning experiences is crucial. I achieve this by recognizing their achievements, providing constructive feedback, and facilitating a classroom environment where effort is celebrated. Satisfaction not only reinforces what students have learned but also motivates them to continue learning..."

(Expert 2, 20 January, 2024: Interview)

"...To grab and maintain students' attention, I believe in creating a dynamic learning environment that challenges them and sparks their curiosity. This includes using

storytelling, posing challenging questions, and applying gamification techniques in lessons to make learning engaging and fun... Developing students' confidence involves creating a supportive learning environment where mistakes are viewed as learning opportunities. I emphasize the importance of positive reinforcement and setting achievable goals for each student, which helps them build a belief in their own abilities and fosters a growth mindset..."

(Expert 3, 22 January, 2024: Interview)

"...I focus on making learning materials and activities relevant to students' current and future needs. This involves integrating career-oriented projects and community service into the curriculum, which helps students understand the practical implications of their studies and motivates them to engage more deeply with the content... To ensure students' satisfaction, I incorporate elements of choice and autonomy in their learning process, allowing them to pursue projects and topics that interest them. This personalization of learning experiences helps students feel more connected to the material and satisfied with their learning journey..."

(Expert 4, 20 January, 2024: Interview)

"...Fostering students' confidence is about providing them with the tools and strategies to overcome academic challenges. I focus on teaching learning strategies, offering regular feedback, and creating peer support systems that encourage students to believe in their capacity to learn and succeed... Capturing students' attention requires creativity and adaptability. I use a variety of instructional strategies, such as debates, simulations, and field trips, to make learning active and engaging. By varying teaching methods, I aim to meet the diverse needs and learning styles of my students, keeping them interested and focused on the lessons..."

(Expert 5, 22 January, 2024: Interview)

3. Approaches to develop learning motivation of upgrading to college students

Education administrators and researchers discussed approaches to develop learning motivation of upgrading to college students, and the consensus was to utilize various approaches to develop learning motivation of upgrading to college students. The approaches identified are : 1) Experience, 2) Present Worth, 3) Future Usefulness, 4) Need Matching, 5) Modeling, 6) Choice, 7) Incongruity, Conflict, 8) Concreteness, 9) Variability, 10) Humor, 11) Inquiry, 12) Participation, 13) Learning Requirements, 14) Difficulty, 15) Expectations, 16) Attributions, 17) Self-Confidence, 18) Natural Consequences, 19) Unexpected Rewards, 20) Positive Outcomes, 21) Negative Influences, 22) Scheduling, 23) Learning Requirements, 24) Expectations, 25) Need Matching, 26) Present Worth, 27) Future Usefulness, 28) Variability.

"...I firmly believe that Experience, Attributions, Self-Confidence, Positive Outcomes, and Negative Influences are key strategies for enhancing student motivation. By linking learning content with students' personal experiences, we can enhance the relevance and appeal of learning. Proper attribution training helps students attribute success to effort and strategy rather than uncontrollable factors, which is crucial for building self-confidence. I emphasize that positive learning experiences and outcomes are essential for stimulating students' intrinsic motivation and sustained engagement. Meanwhile, identifying and reducing negative influences, such as anxiety and fear, can create a more supportive and encouraging learning environment..."

(Expert 1, 22 January, 2024: Interview)

"... I have found that Choice, Variability, Modeling, Concreteness, and Technology Integration are extremely effective strategies. Offering choices in learning paths not only increases student engagement but also enhances their satisfaction and sense of achievement. Introducing diversity in teaching activities and materials can meet the needs of different learning styles. Demonstrative teaching and concrete examples can help students better understand complex concepts. Lastly, effectively integrating

technology can greatly enhance the learning experience, making the process more interactive and engaging..."

(Expert 2, 22 January, 2024: Interview)

"...My experience in the field of curriculum design and assessment tells me that Future Usefulness, Learning Requirements, Scheduling, Participation, and Difficulty are key motivational strategies. Demonstrating the practical application of knowledge in the future can significantly increase student interest in learning. By clearly defining learning requirements and properly scheduling learning tasks, students can better manage their learning progress and feel a sense of achievement. Encouraging active student participation and setting appropriate challenges can promote cognitive development and self-efficacy..."

(Expert 3, 20 January, 2024: Interview)

"... Incongruity, Conflict, Humor, Inquiry, Natural Consequences, and Unexpected Rewards are effective strategies for enhancing learning motivation. Introducing cognitive conflict can stimulate students' curiosity, prompting them to explore and solve problems. Humor not only can reduce learning stress but also increase the enjoyment of learning. Inquiry-based learning encourages students to actively seek knowledge, while natural consequences and unexpected rewards can enhance immediate feedback and satisfaction in the learning process..."

(Expert 4, 20 January, 2024: Interview)

"...I believe that Present Worth, Expectations, Social Influence, Cultural Relevance, and Participation are crucial. By emphasizing the practical value of learning content for students' current lives, we can increase their engagement. Social and cultural expectations have a profound impact on students' learning motivation, and understanding these expectations can help us better support students. Ensuring that

learning content is relevant to students' cultural backgrounds and encouraging active participation in the learning process are key factors in enhancing learning motivation..."

(Expert 5, 22 January, 2024: Interview)

4.Measurement and Evaluation

Based on interviews with educational administrators, the respondents unanimously agree that multiple tools should be used for measurement and evaluation. Prior to development, assessments should examine the current level of upgrading to college students' learning motivation, and during development, they should identify issues and obstacles. After development, the level of upgrading to college students' learning motivation should be reassessed.

"...The measurement and evaluation of this project are critical components, as they provide key insights into its efficacy in enhancing the motivation for learning among students transitioning to college. It is imperative to assess the learning motivation of these students both pre- and post-intervention to facilitate a comparative analysis of the outcomes..."

(Expert 1, 20 January, 2024: Interview)

"...Throughout the development phase, it is essential to rigorously measure and evaluate the activities and tasks undertaken. This evaluation serves to gauge the effectiveness of the training and development initiatives, allowing for necessary adjustments to future activities. Moreover, offering constructive feedback to participants regarding their progress is vital for fostering an understanding of their developmental areas throughout the process..."

(Expert 2, 20 January, 2024: Interview)

"...The evaluation of the project's effectiveness is paramount in determining the actual impact of the training on students' learning motivation. This process not only

quantifies the learning outcomes but also highlights areas requiring enhancement, thus contributing to the optimization of the training program..."

(Expert 3, 22 January, 2024: Interview)

"...Evaluating the project's effectiveness is a critical step towards ensuring the training program's success. Employing diverse methodologies to assess students' knowledge and skill enhancement is recommended. Regular engagement with students to solicit their feedback and suggestions is crucial for the timely refinement of the training program, ensuring it aligns with the students' real needs and expectations..."

(Expert 4, 22 January, 2024: Interview)

"...Commitment to evaluating the project's effectiveness is essential. Through thorough evaluation, we can pinpoint the strengths and weaknesses of the training program and implement timely improvements. I advocate for the use of a mixed-methods approach, incorporating both qualitative and quantitative analyses, to gain a comprehensive understanding of the project's impact..."

(Expert 5, 21 January, 2024: Interview)

From the discussions conducted, the researchers were able to summarize key findings to design an approach aimed at developing the learning motivation of upgrading to college students in Baise University. This was based on interviews with educational administrators, as shown in Tables 30 and 31.

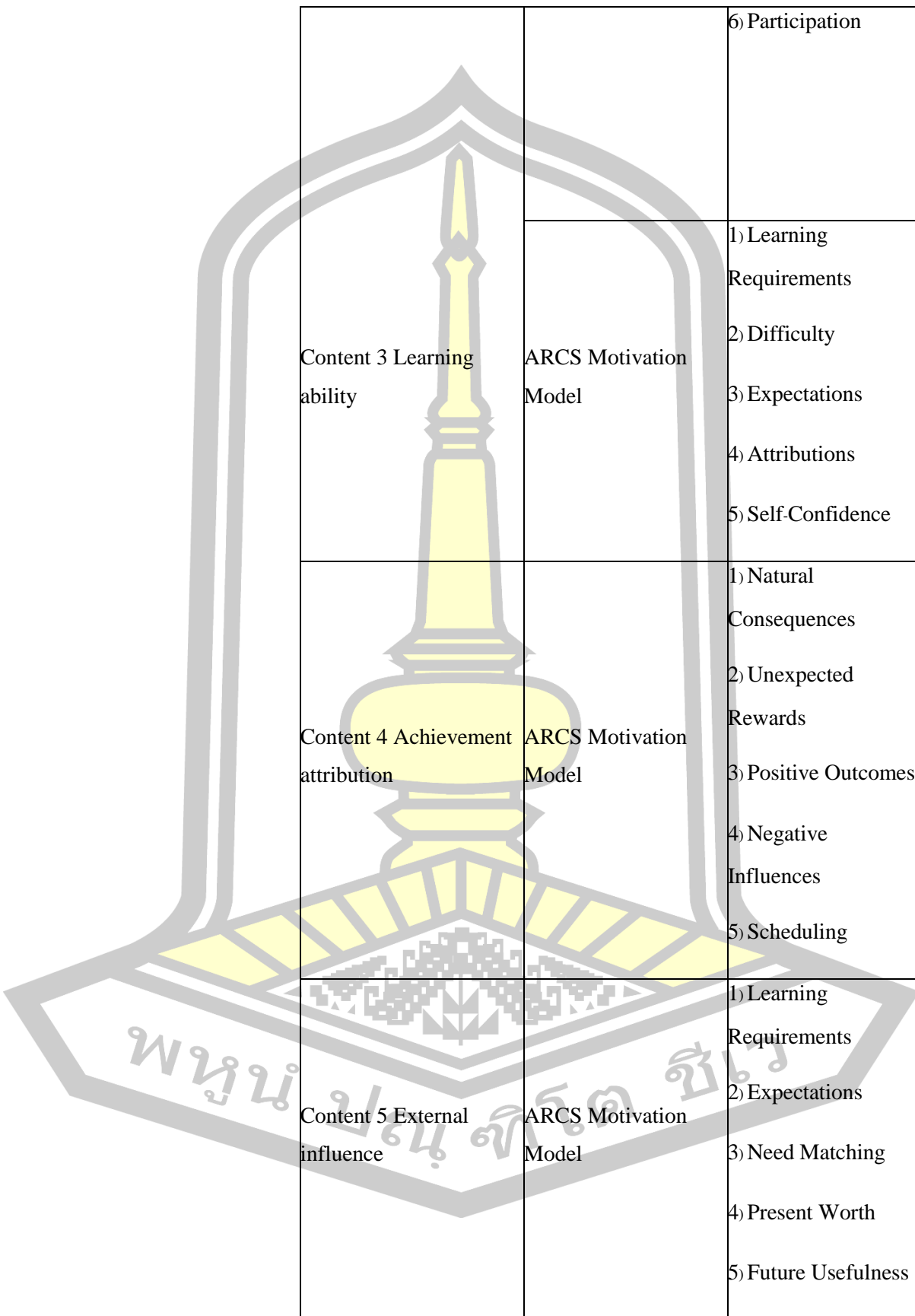
Table 30 Guidelines for the development of supplementary approach to develop the learning motivation of upgrading to college students in Baise University

Expert	Content	Principle	Approach
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Educational administrator 1	Content 1 Knowledge value	ARCS Motivation Model	<ul style="list-style-type: none"> 1) Experience 2) Present Worth 3) Future Usefulness 4) Need Matching 5) Modeling 6) Choice
	Content 2 Learning interest	ARCS Motivation Model	<ul style="list-style-type: none"> 1) Incongruity, Conflict 2) Concreteness 3) Variability 4) Humor 5) Inquiry 6) Participation
	Content 3 Learning ability	ARCS Motivation Model	<ul style="list-style-type: none"> 1) Learning Requirements 2) Difficulty 3) Expectations 4) Attributions 5) Self-Confidence
	Content 4 Achievement attribution	ARCS Motivation Model	<ul style="list-style-type: none"> 1) Natural Consequences 2) Unexpected Rewards

			<ul style="list-style-type: none"> 3) Positive Outcomes 4) Negative Influences 5) Scheduling
	<p>Content 5 External influence</p>	<p>ARCS Motivation Model</p>	<ul style="list-style-type: none"> 1) Learning Requirements 2) Expectations 3) Need Matching 4) Present Worth 5) Future Usefulness 6) Variability
<p>Educational administrator 2</p>	<p>Content 1 Knowledge value</p>	<p>ARCS Motivation Model</p>	<ul style="list-style-type: none"> 1) Experience 2) Present Worth 3) Future Usefulness 4) Need Matching 5) Modeling 6) Choice
	<p>Content 2 Learning interest</p>	<p>ARCS Motivation Model</p>	<ul style="list-style-type: none"> 1) Incongruity, Conflict 2) Concreteness 3) Variability 4) Humor 5) Inquiry

		6) Participation
Content 3 Learning ability	ARCS Motivation Model	1) Learning Requirements 2) Difficulty 3) Expectations 4) Attributions 5) Self-Confidence
Content 4 Achievement attribution	ARCS Motivation Model	1) Natural Consequences 2) Unexpected Rewards 3) Positive Outcomes 4) Negative Influences 5) Scheduling
Content 5 External influence	ARCS Motivation Model	1) Learning Requirements 2) Expectations 3) Need Matching 4) Present Worth 5) Future Usefulness



Educational administrator 3	Content 4 Achievement attribution	ARCS Motivation Model	<p>6) Variability</p> <p>1) Natural Consequences</p> <p>2) Unexpected Rewards</p> <p>3) Positive Outcomes</p> <p>4) Negative Influences</p> <p>5) Scheduling</p>
	Content 5 External influence	ARCS Motivation Model	<p>1) Learning Requirements</p> <p>2) Expectations</p> <p>3) Need Matching</p> <p>4) Present Worth</p> <p>5) Future Usefulness</p> <p>6) Variability</p>
	Educational administrator 4	Content 1 Knowledge value	ARCS Motivation Model

			6) Choice
Content 2 interest	Learning ARCS Model	Motivation	1) Incongruity, Conflict 2) Concreteness 3) Variability 4) Humor 5) Inquiry 6) Participation
Content 3 ability	Learning ARCS Model	Motivation	1) Learning Requirements 2) Difficulty 3) Expectations 4) Attributions 5) Self-Confidence
Content 4 attribution	Achievement ARCS Model	Motivation	1) Natural Consequences 2) Unexpected Rewards 3) Positive Outcomes 4) Negative Influences

			5) Scheduling
	Content 5 External influence	ARCS Motivation Model	1) Learning Requirements 2) Expectations 3) Need Matching 4) Present Worth 5) Future Usefulness 6) Variability
Educational administrator 5	Content 1 Knowledge value	ARCS Motivation Model	1) Experience 2) Present Worth 3) Future Usefulness 4) Need Matching 5) Modeling 6) Choice
	Content 2 Learning interest	ARCS Motivation Model	1) Incongruity, Conflict 2) Concreteness 3) Variability 4) Humor 5) Inquiry

		6) Participation
Content 3 Learning ability	ARCS Motivation Model	1) Learning Requirements 2) Difficulty 3) Expectations 4) Attributions 5) Self-Confidence
Content 4 Achievement attribution	ARCS Motivation Model	1) Natural Consequences 2) Unexpected Rewards 3) Positive Outcomes 4) Negative Influences 5) Scheduling
Content 5 External influence	ARCS Motivation Model	1) Learning Requirements 2) Expectations 3) Need Matching 4) Present Worth 5) Future Usefulness 6) Variability

Table 31 Summarizes the key findings in the design of the supplemental approach by educational administrators to develop the learning motivation of upgrading to college students in Baise University

Issue of discussion	Summary of key findings from the discussion
1.Components of approach	1) Principles 2) Objectives 3) Content 4) Development Process 5) Measurement and Evaluation
2.Development format	ARCS Motivation Model 1) Attention 2) Relevance 3) Confidence 4) Satisfaction
3.Development Approach	1) Experience, 2) Present Worth, 3) Future Usefulness, 4) Need Matching, 5) Modeling, 6) Choice, 7) Incongruity, Conflict, 8) Concreteness, 9) Variability, 10) Humor, 11) Inquiry, 12) Participation, 13) Learning Requirements, 14) Difficulty, 15) Expectations, 16) Attributions, 17) Self-Confidence, 18) Natural Consequences, 19) Unexpected Rewards, 20) Positive Outcomes, 21) Negative Influences, 22) Scheduling, 23) Learning Requirements, 24) Expectations, 25) Need Matching, 26) Present Worth, 27) Future Usefulness, 28) Variability
4.Measurement and Evaluation	<ul style="list-style-type: none"> - Assess the development of upgrading to college students' learning motivation using the development assessment tool before, during, and after the development stages. - Before the commencement of upgrading to college students' learning motivation development approach, use satisfaction

assessment tools to evaluate the satisfaction level of the development plan.
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Step 3: Evaluation Results of the approach developing learning motivation of upgrading to college students in Baise University.

Part 1: Introduction to the approach for developing the learning motivation of upgrading to college students in Baise University.

1. Principle

Enhancing the learning motivation of students upgrading from junior colleges to universities is crucial for their academic achievement and personal development. These students are at a critical learning stage, facing the challenge of transitioning from vocational education to undergraduate education. In this process, a strong learning motivation is key to their success. Firstly, a high level of learning motivation can help students overcome difficulties and challenges encountered during the learning process, maintaining a continuous and effective learning attitude. Secondly, a positive learning motivation can inspire students to explore knowledge and be passionate about learning, promoting in-depth study and research in their fields of specialization. Moreover, good learning motivation also aids in developing self-directed learning and time management skills, laying a solid foundation for their future career and lifelong learning. Therefore, educators and schools should prioritize enhancing the learning motivation of students upgrading from junior colleges to universities. This can be achieved by creating a positive learning environment, providing personalized learning support, and encouraging students to set achievable learning goals, thereby stimulating their intrinsic motivation and helping them achieve their academic and personal development goals. This is not only beneficial for the students themselves but also crucial for improving the quality of education and promoting societal progress.

2. Objective

2.1 Enhance understanding of the principles of developing the learning motivation of upgrading to college students in Baise University.

2.2 Under the supervision of relevant educational administrators, developing the learning motivation of upgrading to college students in Baise University. This includes 5 areas: 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution, 5) External influence.

2.3 To ensure that the upgrading to college students receiving training develop their learning motivation and can apply the knowledge and experience gained in learning and work, thus producing a positive impact on the enhancement of educational quality.

3. Content

To enhance the learning motivation of upgrading to college students in Baise University, the approach comprises 5 modules, each outlining specific content domains.

Topic 1: Knowledge value: Content 1

The content of this module focuses on developing upgrading to college students' awareness of Knowledge value. It includes Intrinsic value, Practical value, Social contribution value, Self-actualization value and Lifelong learning value. This is achieved through Experience, Present Worth, Future Usefulness, Need Matching, Modeling and Choice.

Topic 2: Learning interest: Content 2

The content of this module focuses on developing upgrading to college students' Learning interest. It includes Subject interest, Exploration and discovery interest, Interest in practical application, Interest in cooperative learning and Interest in self-directed learning. This is achieved through Incongruity and Conflict, Concreteness, Variability, Humor, Inquiry and Participation.

Topic 3: Learning ability: Content 3

The content of this module focuses on developing upgrading to college students' Learning ability. It includes Self-efficacy, Time management ability, Learning strategy use ability, Adaptive learning ability and Self-monitor and reflect ability. This is achieved through Learning Requirements, Difficulty, Expectations, Attributions and Self-Confidence.

Topic 4: Achievement attribution: Content 4

The content of this module focuses on developing upgrading to college students' Achievement attribution. It includes Effort attribution, Ability attribution, Task difficulty attribution, Luck attribution and Situation attribution. This is achieved through Natural Consequences, Unexpected Rewards, Positive Outcomes, Negative Influences and Scheduling.

Topic 5: External influence: Content 5

The content of this module focuses on developing upgrading to college students to keep the external influence in perspective. It includes Teacher's support, Classmate interaction, School culture, Societal expectations and values and Family environment. This is achieved through Learning Requirements, Expectations, Need Matching, Present Worth, Future Usefulness and Variability.

4. Development Process

4.1 Development Principles of Learning Motivation of Upgrading to College Students by ARCS Motivation Model

From studying and analyzing academic literature and documents, the concept of learning motivation has been formulated according to the ARCS Motivation Model. The ARCS Motivation Model, proposed by John M. Keller, is a crucial framework for understanding and enhancing student learning motivation. This theory

emphasizes four key elements: Attention, Relevance, Confidence, and Satisfaction, considering these aspects as the core to stimulate and maintain students' motivation to learn. The importance of the ARCS motivation theory in educational practice is manifested in several aspects:

- 1) **Attention:** by capturing students' attention, teachers can use various strategies such as storytelling and inquiry-based learning to make the content more engaging and interesting, thereby sparking students' curiosity and interest in learning.
- 2) **Relevance:** emphasizing the relevance of the learning content to students' life experiences and future goals can help students understand the practical significance of their studies, increasing their motivation to engage.
- 3) **Confidence:** by building students' confidence, teachers can set reasonable challenges and provide positive feedback, helping students experience success and thus enhancing their confidence to face learning challenges.
- 4) **Satisfaction:** the realization of satisfaction, by recognizing students' efforts and achievements, allows students to feel accomplished and valued throughout the learning process, thereby enhancing their intrinsic satisfaction and motivation to continue learning.

In summary, the ARCS motivation theory provides teachers with a scientific and systematic approach to designing and implementing teaching activities to improve students' learning motivation. By focusing on students' intrinsic needs and emotional experiences, teachers can more effectively stimulate students' enthusiasm for learning, promoting their academic growth and personal development.

4.2 Development Approach of development Learning Motivation of Upgrading to College Students

The Approach to develop the learning motivation of upgrading to college students are as follows:

4.2.1 Content 1 Knowledge value, employing the following development Approaches:

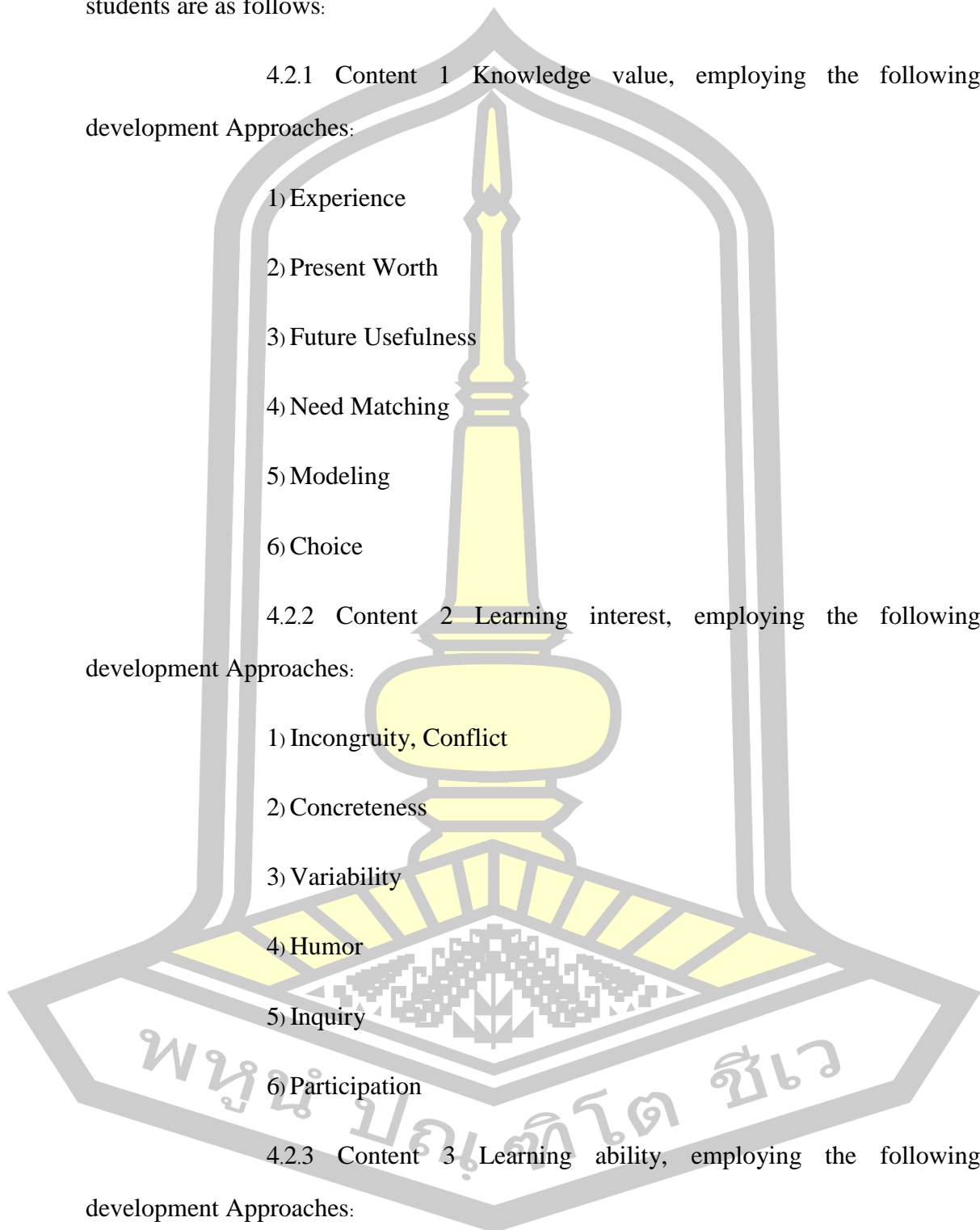
- 1) Experience
- 2) Present Worth
- 3) Future Usefulness
- 4) Need Matching
- 5) Modeling
- 6) Choice

4.2.2 Content 2 Learning interest, employing the following development Approaches:

- 1) Incongruity, Conflict
- 2) Concreteness
- 3) Variability
- 4) Humor
- 5) Inquiry

4.2.3 Content 3 Learning ability, employing the following development Approaches:

- 1) Learning Requirements
- 2) Difficulty



3) Expectations

4) Attributions

5) Self-Confidence

4.2.4 Content 4 Achievement attribution, employing the following development Approaches:

1) Natural Consequences

2) Unexpected Rewards

3) Positive Outcomes

4) Negative Influences

5) Scheduling

4.2.5 Content 5 External influence, employing the following development Approaches:

1) Learning Requirements

2) Expectations

3) Need Matching

4) Present Worth

5) Future Usefulness

6) Variability

5. Measurement and Evaluation

5.1 Pre-development Evaluation

Analyzing the constituent elements of upgrading to college students' learning motivation via a comprehensive literature review and conducting the existing upgrading to college students' learning motivation prior to further development.

5.2 Evaluation during development

During the development phase, the check activities encompass group activities, learning exchange assessments, and satisfaction assessments of the development activities, utilizing satisfaction evaluation forms.

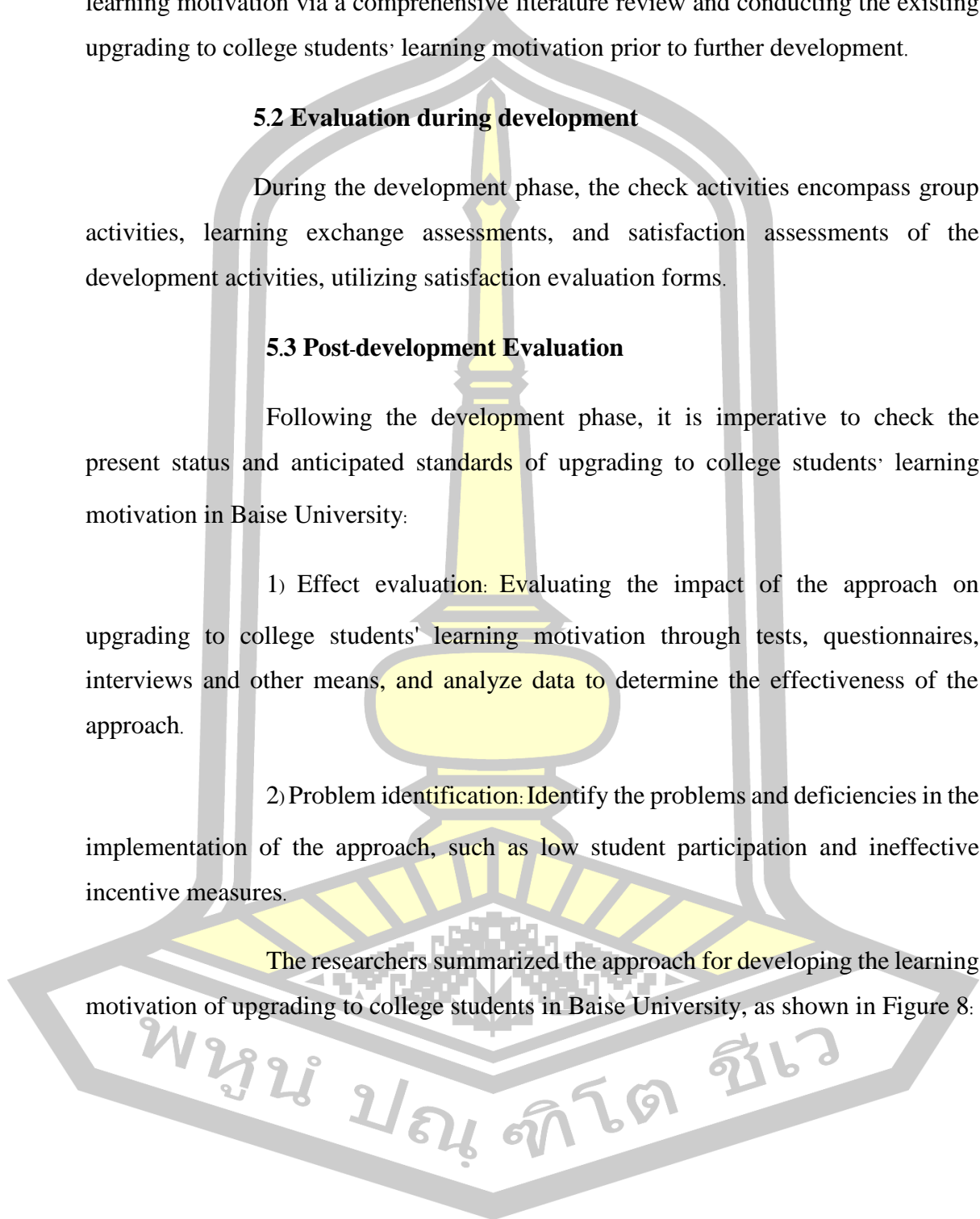
5.3 Post-development Evaluation

Following the development phase, it is imperative to check the present status and anticipated standards of upgrading to college students' learning motivation in Baise University:

1) Effect evaluation: Evaluating the impact of the approach on upgrading to college students' learning motivation through tests, questionnaires, interviews and other means, and analyze data to determine the effectiveness of the approach.

2) Problem identification: Identify the problems and deficiencies in the implementation of the approach, such as low student participation and ineffective incentive measures.

The researchers summarized the approach for developing the learning motivation of upgrading to college students in Baise University, as shown in Figure 8:



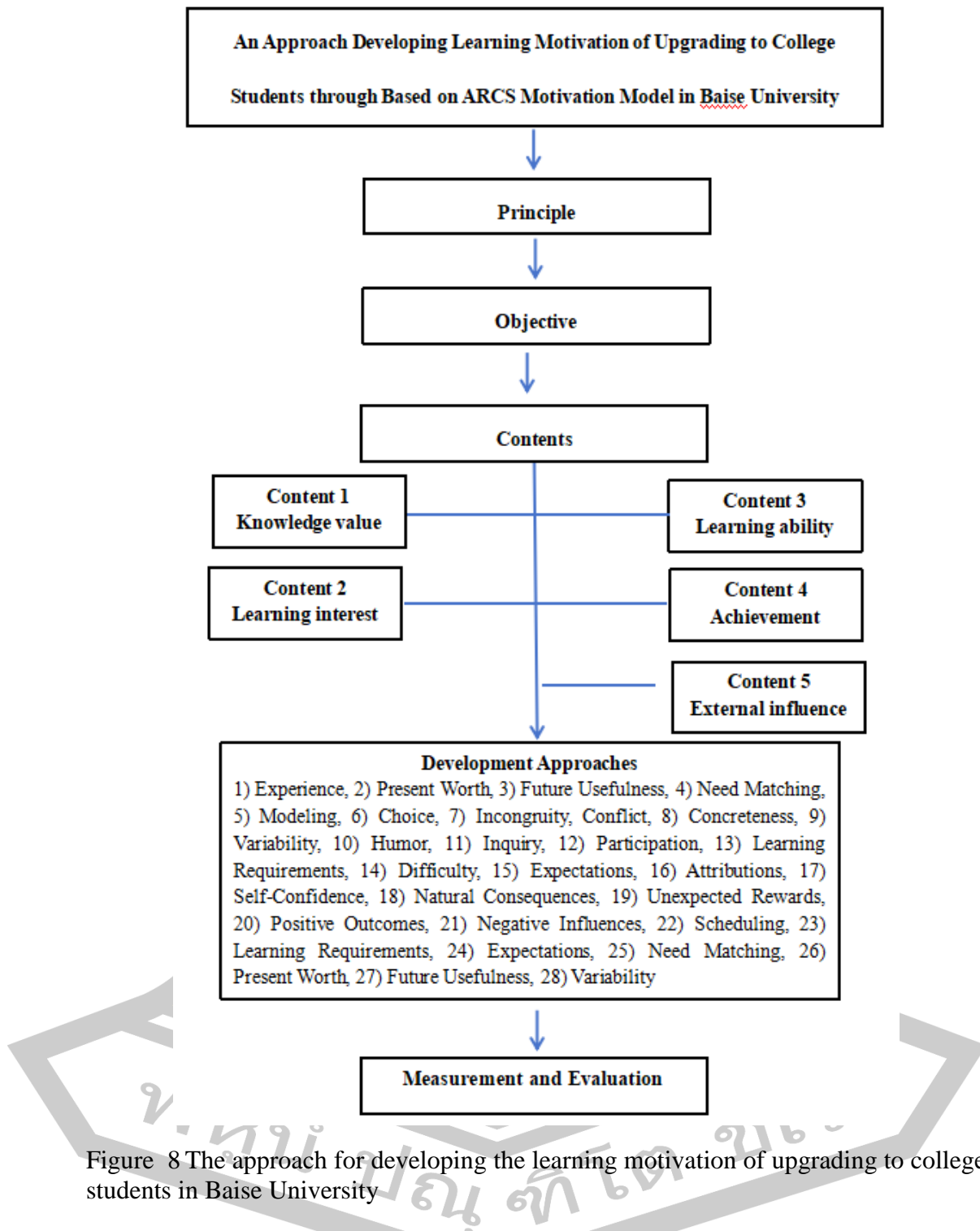


Figure 8 The approach for developing the learning motivation of upgrading to college students in Baise University

Part 2: Details of the approach to develop the learning motivation of upgrading to college students in Baise University. The components of the program are as follows:

1. Content 1: Knowledge value

1.1 Principle

Knowledge value refers to the views, evaluations and beliefs held by individuals or societies about knowledge itself. Understanding the value of knowledge is extremely important for students because it helps them to realize that learning is not just about taking exams or completing school, but is an important means to promote personal growth, improve problem-solving skills, and adapt to social changes. When students realize the application and value of what they have learned in real life, their motivation to learn is significantly improved. This intrinsic drive motivates students to actively explore and study deeply, not only for good grades, but out of genuine interest and pursuit of knowledge itself and its applied value. Therefore, educators should help students deeply understand and appreciate the value of knowledge through various teaching activities and practical experience, so as to stimulate their learning enthusiasm and continuous learning motivation.

1.2 Objective

The aim of enhancing students' understanding of the value of knowledge is to help students fully understand the multi-dimensional value of knowledge, so as to stimulate their learning interest, enhance their learning motivation, and promote their all-round development. It mainly includes the intrinsic value of knowledge, practical value, social contribution value, self-realization value, lifelong learning value and so on. In short, enhancing students' awareness of the multi-dimensional value of knowledge can not only promote their learning motivation and learning effectiveness, but also help them better understand the far-reaching significance of learning and contribute to the development of individuals and society.

1.3 Content

1.3.1 Learn the content, definition and importance of Knowledge value

1.3.2 Understand the cognitive stage of knowledge value

1.3.3 Components of Knowledge value

1.4 Development process

Development process of Knowledge value for upgrading to college students based on ARCS Motivation Model in Baise University:

1.4.1 Development Approach 1: Experience

1) Through the association with students' existing experience, it helps them understand the meaning and value of new knowledge and enhances the subjective feeling of learning.

2) Combine students' personal experiences to show how knowledge solves practical problems and improves its application.

3) Through community service or projects, students experience how knowledge can have a positive impact on society.

4) Students are encouraged to explore their potential and achieve personal growth through learning.

5) Develop students' ability to combine personal experience with new knowledge and stimulate interest in lifelong learning.

1.4.2 Development Approach 2: Present Worth

1) Emphasize the importance of learning content to students' current situation, and enhance the sense of urgency and necessity of learning.

2) Demonstrate the direct application of knowledge and skills to students' current life or study and enhance their practical understanding.

3) Examples show how to use the knowledge to serve the society and enhance the sense of social responsibility.

4) Let students realize that they can achieve their personal goals and enhance their self-worth through current learning.

5) Emphasize the importance of current learning for future lifelong learning paths and foster an attitude of continuous learning.

1.4.3 Development Approach 3: Future Usefulness

1) By understanding students' individual needs and interests, matching learning content to students' intrinsic motivation, and improving the personalization and relevance of learning.

2) Ensure that the learning content meets the current or future practical needs of the student and enhances its usefulness.

3) Identify and match students' needs for social engagement and contribution to achieve this through learning.

4) Enhance the attractiveness of learning by meeting students' needs for achievement and self-improvement.

5) Guide students to identify individual learning needs and cultivate the ability of independent learning and lifelong learning.

1.4.4 Development Approach 4: Need Matching

1) By understanding students' individual needs and interests, matching learning content to students' intrinsic motivation, and improving the personalization and relevance of learning.

2) Ensure that the learning content meets the current or future practical needs of the student and enhances its usefulness.

3) Identify and match students' needs for social engagement and contribution to achieve this through learning.

4) Enhance the attractiveness of learning by meeting students' needs for achievement and self-improvement.

5) Guide students to identify individual learning needs and cultivate the ability of independent learning and lifelong learning.

1.4.5 Development Approach 5: Modeling

1) Through example demonstration, demonstrate a passion for knowledge and values, and stimulate the intrinsic motivation of students.

2) Demonstrate the application of knowledge and skills through practical demonstrations to enhance the practicality of learning.

3) Through the role model of social contribution, stimulate students' social responsibility and desire to contribute.

4) Showcasing examples of achieving personal goals and dreams through learning and applying knowledge, motivating students to pursue self-actualization.

5) Highlighting the importance of learning in personal growth and adapting to social change by presenting examples of lifelong learners.

1.4.6 Development Approach 6: Choice

1) Provide a choice of learning topics or activities for students to choose according to their own interests and needs, enhancing autonomy and intrinsic motivation for learning.

2) Allow students to choose learning content according to their career planning and life needs, improve the practicality of knowledge.

3) Let students choose how to use their knowledge to serve society and enhance their sense of social participation.

4) Promote self-actualization by choosing learning paths that achieve personal interests and goals.

5) Students are encouraged to choose their learning direction according to their personal development needs, and cultivate the habit and ability of lifelong learning.

1.5 Measurement and Evaluation

1.5.1 Evaluate the results of students' cognition of Knowledge value.

1.5.2 Assess the project's Knowledge value management plan.

1.5.3 Evaluate the results of Knowledge value management operational monitoring.

1.5.4 Assess the results presented by Knowledge value management activities.

2. Content 2: Learning interest

2.1 Principle

Learning interest refers to an individual's mental state of curiosity, involvement and enthusiasm for the learning activity itself. Improving students' learning interest plays a vital role in stimulating their learning motivation. Learning interest is not only the inner driving force in the learning process, but also the key factor to promote students' active participation, in-depth exploration and continuous learning. When students are interested in learning content, they are more inclined to invest more time and energy, showing higher learning efficiency and better learning outcomes. In addition, interest in learning can help students maintain a positive attitude in the face

of learning challenges and difficulties, and enhance self-confidence and satisfaction through the process of exploration and problem solving. Therefore, cultivating and improving students' interest in learning can not only directly enhance their motivation to learn, but also lay a solid foundation for their long-term academic achievement and personal development.

2.2 Objective

The purpose of enhancing students' learning interest is to stimulate their intrinsic motivation, so that they can take the initiative and actively participate in the learning process, so as to improve learning efficiency and academic achievement. By developing students' interest in learning, they can help them discover and explore the joy of knowledge, establish lasting learning habits, and lay the foundation for lifelong learning. Learning interests include subject interest, exploration and discovery interest, practical application interest, cooperative learning interest, self-guided learning interest. In short, the purpose of promoting students' learning interest is to stimulate students' intrinsic learning motivation and promote their all-round development and lifelong learning through diversified teaching strategies and activities.

2.3 Content

2.3.1 Importance and significance of Learning interest.

2.3.2 Components of Learning interest.

2.3.3 Establish a positive classroom atmosphere.

2.3.4 Effective communication skills

2.4 Development process

Development process of Learning interest for upgrading to college students based on ARCS Motivation Mode in Baise University:

2.4.1 Development Approach 1: Incongruity, Conflict

1) By introducing information or ideas that do not match students' expectations, it stimulates their curiosity and prompts them to delve deeper into the subject content.

2) Inconsistent and conflicting situations encourage students to ask questions, explore, and experiment in order to resolve cognitive inconsistencies.

3) The conflict between theory and practice is demonstrated through practical cases to stimulate students' interest in finding solutions.

2.4.2 Development Approach 2: Concreteness

1) Use concrete examples and cases to bring the subject content to life and help students better understand and engage their interest in the subject.

2) Through specific practical activities, such as experiments or projects, students can experience the application of knowledge and increase their interest in practical application.

3) Students are encouraged to collaborate in specific learning activities and enhance the social dimension of learning through group projects or discussions.

2.4.3 Development Approach 3: Variability

1) Increase the appeal of the subject by offering a diverse range of learning materials and activities that cater for the learning styles and interests of different students.

2) A variety of learning resources and methods can stimulate students' desire to explore and encourage them to understand subject content from different perspectives.

3) Diverse learning options encourage students to develop learning paths according to their own interests and goals, and enhance the motivation of self-directed learning.

2.4.4 Development Approach 4: Humor

1) Humor can reduce the pressure of subject learning, make the learning process more relaxed and enjoyable, and thus increase students' interest in subjects.

2) Humor elements can facilitate interaction and communication between students, making the cooperative learning environment more friendly and open.

2.4.5 Development Approach 5: Inquiry

1) Inquiry-based learning methods encourage students to ask questions, conduct research and experiment, and stimulate their interest in exploring the unknown.

2) Through inquiry activities, students can apply theoretical knowledge to solve practical problems and increase their interest in practical applications.

2.4.6 Development Approach 6: Participation

1) By encouraging students to participate in discussions, group work, and collaborative projects, their interest and commitment to cooperative learning can be enhanced.

2) Participatory learning environments allow students to choose learning activities according to their own interests and promote the initiative of self-directed learning.

2.5 Measurement and evaluation

2.5.1 Evaluate the results of students' level of Learning interest.

2.5.2 Assess the project's Learning interest management plan.

2.5.3 Evaluate the results of Learning interest management operational monitoring.

2.5.4 Assess the results presented by Learning interest management activities.

3. Content 3: Learning ability

3.1 Principle

Learning ability refers to as the sense of learning ability, refers to the belief and assessment of one's ability to complete learning tasks and achieve learning goals. Developing students' learning abilities is critical to their educational achievement and personal growth, as strong learning abilities not only enable students to absorb and process information more effectively, but also help them solve problems autonomously and adapt to new learning challenges. The improvement of learning ability directly affects students' learning motivation, because when students find that they can overcome difficulties in learning by applying effective learning strategies, their self-confidence and sense of accomplishment will be enhanced. This positive feedback loop promotes students' enthusiasm and interest in learning, making them more actively involved in the learning process and exploring more learning opportunities. Therefore, by improving learning ability, students can not only improve their academic performance, but also stimulate their internal learning motivation, laying a solid foundation for lifelong learning and personal development.

3.2 Objective

Developing students' learning capabilities aims to equip them to learn in a more effective and self-directed manner, thereby enhancing their academic achievement and laying the foundation for lifelong learning. Learning ability includes

self-efficacy, time management ability, learning strategy use ability, adaptive learning ability, self-monitoring and reflection ability. Developing students' learning abilities aims to make them more independent, effective and adaptive learners, not only improving their current learning effectiveness, but also laying a solid foundation for their future learning and personal development.

3.3 Content

3.3.1 Significance and importance of learning ability

3.3.2 Components of learning ability

3.3.3 Establishing learning ability evaluation

3.3.4 Learning atmosphere

3.4 Development process

Development process of Learning ability for upgrading to college students based on ARCS Motivation Model in Baise University:

3.4.1 Development Approach 1: Learning Requirements

1) Clear learning requirements help students understand the specific goals that need to be achieved, and when students understand the expected learning outcomes, they are more likely to believe that they can achieve those goals, thereby enhancing self-efficacy.

2) Clear learning requirements encourage students to plan and allocate study time and improve their time management skills.

3.4.2 Development Approach 2: Difficulty

1) By adjusting the difficulty of learning tasks properly, students can be encouraged to challenge themselves, gradually improve their problem-solving ability, and enhance their learning ability to adapt to new situations.

2) Faced with tasks of varying difficulty, students need to assess their learning progress and strategies to promote self-monitoring and reflection.

3.4.3 Development Approach 3: Expectations

1) Setting reasonable expectations helps students build expectations of success, and when students believe they can meet those expectations, their sense of self-efficacy is enhanced.

2) Clear expectations encourage students to find and apply effective learning strategies to achieve their goals.

3.4.4 Development Approach 4: Attributions

1) Teaching students how to attribute success to their own efforts and using the right learning strategies, rather than external factors or luck, can significantly boost their sense of self-efficacy.

2) By analyzing the reasons for success or failure, students can better understand their own learning process and improve self-monitoring and reflection skills.

3.4.5 Development Approach 5: Self-Confidence

1) Enhancing students' self-confidence directly boosts their sense of self-efficacy and makes them more confident in their own abilities.

2) Confident students are more likely to plan their study time effectively because they believe they can accomplish their study tasks effectively.

3) Self-confidence encourages students to be more active in exploring and applying different learning strategies.

4) Confident students are more willing to take on new challenges and adapt to new situations because they believe they can overcome difficulties.

5) Self-confidence encourages students to evaluate and adjust their learning process to achieve better learning results.

3.5 Measurement and evaluation

3.5.1 Evaluate the results of students' level of Learning ability.

3.5.2 Assess the project's Learning ability management plan.

3.5.3 Evaluate the results of Learning ability management operational monitoring.

3.5.4 Assess the results presented by Learning ability management activities.

4. Content 4: Achievement attribution

4.1 Principle

Achievement Attribution is a concept in psychology that refers to the process by which individuals account for their experiences of success or failure, i.e. how individuals attribute their academic performance or achievements to specific causes. It is important for students to learn the correct way of achievement attribution to cultivate their positive learning attitude and continuous learning motivation. Proper achievement attribution means that students attribute their success to internal factors such as effort and the use of effective learning strategies, rather than external factors or chance. This type of attribution can enhance students' sense of self-efficacy and make them believe that they can acquire new knowledge and skills through their own efforts. When students recognize that their progress and success is the result of their own efforts, they are more likely to remain positive and persistent in the face of learning challenges, which promotes motivational arousal and self-driven learning behaviors. Therefore, educators should attach importance to cultivating students' correct achievement attribution and help them establish the belief that they have a sense of control over their

learning outcomes, which plays an important role in stimulating students' intrinsic learning motivation and promoting their long-term academic achievement.

4.2 Objective

The purpose of training students to make correct attribution is to help them establish a positive learning attitude and self-efficacy, so as to enhance their learning motivation and persistence. The correct way of attribution enables students to understand the reasons behind their learning outcomes and challenges, so as to adjust their learning strategies and behaviors more effectively. Achievement attribution includes effort attribution, ability attribution, task difficulty attribution, luck attribution, situation attribution and so on. The purpose of training students to make correct attribution is to enable them to understand and analyze their own learning experience more accurately, so as to promote positive learning behaviors, enhance learning motivation and self-regulation ability, and lay a solid foundation for lifelong learning.

4.3 Content

4.3.1 The Importance and Significance of Achievement Attribution

4.3.2 Components of Achievement Attribution

4.3.3 Application process and successful results of Achievement Attribution

4.3.4 Cultivate behavior habits of personal improvement and reflection

4.4 Development process

Development process of Achievement attribution for upgrading to college students based on ARCS Motivation Model in Baise University:

4.4.1 Development Approach 1: Natural Consequences

1) Help students attribute achievements to personal effort by allowing them to experience success or improvement as a direct result of their efforts. For example, getting positive feedback after completing a moderately difficult project allows students to see the immediate results of their efforts.

2) Natural consequences can also help students recognize an increase in their intrinsic abilities. When students successfully complete a task because they have acquired new skills or knowledge, they are more likely to attribute the achievement to their own abilities.

4.4.2 Development Approach 2: Unexpected Rewards

While unexpected rewards may be seen by students as the result of "luck," educators can use these opportunities to emphasize the effort and achievement behind the reward, thereby helping students understand that even unexpected rewards are a natural consequence of their actions.

4.4.3 Development Approach 3: Positive Outcomes

Positive results encourage students to attribute success to their own efforts and abilities. Educators should emphasize that success is achieved through continuous effort and ability improvement, not just by chance.

4.4.4 Development Approach 4: Negative Influences

When students experience failure, understanding the negative effects (such as the difficulty of a task or adverse situational factors) can help them attribute the challenge to external factors that are controllable or uncontrollable, rather than personal failure. This helps students maintain a positive attitude and learn from the experience.

4.4.5 Development Approach 5: Scheduling

By rationalizing learning tasks and time, educators can help students see the impact of time management and environment Settings on learning outcomes.

This prompts students to attribute achievement to effective planning and situational factors rather than just individual effort or ability.

4.5 Measurement and evaluation

4.5.1 Evaluate the results of students' mode of Achievement attribution.

4.5.2 Assess the project's Achievement attribution management plan.

4.5.3 Evaluate the results of Achievement attribution management operational monitoring.

4.5.4 Assess the results presented by Achievement attribution management activities.

5. Content 5: External influence

5.1 Principle

External influence plays a crucial role in influencing students' learning motivation. These factors include family environment, teacher support, peer interaction, school culture and social expectations, which together constitute the external environment and background of students' learning. Positive external support and encouragement can significantly increase students' interest and motivation in learning, help them build self-confidence and overcome learning challenges. For example, teachers' recognition and encouragement can enhance students' self-efficacy, family support can provide a stable learning environment, and the positive interaction of peers can stimulate the spirit of competition and cooperation in learning. Conversely, lack of support or negative external influences may reduce students' motivation and lead to a decline in academic performance. Therefore, creating a positive learning environment with the necessary external support and resources is of great importance in stimulating students' learning motivation and promoting their academic achievement.

5.2 Objective

The purpose of adjusting the influence of external environment on students' learning is to create a positive and supportive learning atmosphere, so as to stimulate students' learning motivation, improve learning efficiency and academic achievement. The external influence mainly includes teacher support, classmate mutual aid, school culture, social expectation and values, family environment and so on. By adjusting and optimizing the external environment, students can be provided with an environment conducive to learning and development, thereby stimulating their learning motivation and promoting academic and personal growth.

5.3 Content

5.3.1 Significance and importance of External influence

5.3.2 Components of External influence

5.3.3 Refining and rethinking processes to achieve success goals

5.4 Development process

Development process of External influence for upgrading to college students based on ARCS Motivation Model in Baise University:

5.4.1 Development Approach 1: Learning Requirements

1) Clear learning requirements help students understand teachers' expectations, and teachers can support students in meeting these requirements by providing guidance and feedback, enhancing students' motivation.

2) Once parents understand the school's learning requirements, they can provide additional support and resources at home to help students meet those requirements.

5.4.2 Development Approach 2: Expectations

1) Society's expectations and values about education influence students' motivation to learn. Clarifying society's expectations for learning outcomes can motivate students to work hard to meet those expectations.

2) The expectation and encouragement of good results in the school culture can boost students' motivation to learn, especially when achievement and effort promoted by the school are highly valued.

5.4.3 Development Approach 3: Need Matching

1) Through group learning and peer tutoring, students can help each other meet their learning needs, and this mutual assistance can enhance the relevance and motivation of learning.

2) The home environment should encourage students to explore personal interests and career goals, and enhance the personal meaning of learning through learning activities that match these personal needs.

5.4.4 Development Approach 4: Present Worth

1) Teachers can boost motivation by connecting learning content to students' current life experiences and interests, helping students see the immediate value of learning.

2) Society's high evaluation of certain knowledge and skills can enhance students' current perception of the value of learning in these areas, thus boosting motivation.

5.4.5 Development Approach 5: Future Usefulness

1) Families can emphasize the importance of education for future career success and personal development, helping students see the long-term value of learning.

2) Society's demand for high levels of education and professional skills can motivate students to study in order to achieve future career goals and social status.

5.4.6 Development Approach 6: Variability

1) Schools can enhance students' motivation by offering a variety of courses and activities to meet their different learning needs and interests.

2) Mutual assistance and communication between classmates can provide a variety of learning perspectives and experiences, enrich the learning content, and stimulate students' interest and motivation.

5.5 Measurement and evaluation

5.5.1 Evaluate the results of students' mode of External influence.

5.5.2 Assess the project's External influence plan.

5.5.3 Evaluate the results of External influence adjusting operational monitoring.

5.5.4 Assess the results presented by External influence adjusting activities.

Part 3: Results of evaluating the suitability of the upgrading to college students developing approach.

Evaluation of the suitability and feasibility of the approach to develop the learning motivation of upgrading to college students by 5 experts, as shown in Table 32.

Table 32 Mean and standard deviation of suitability and feasibility levels of approach to develop the learning motivation of upgrading to college students

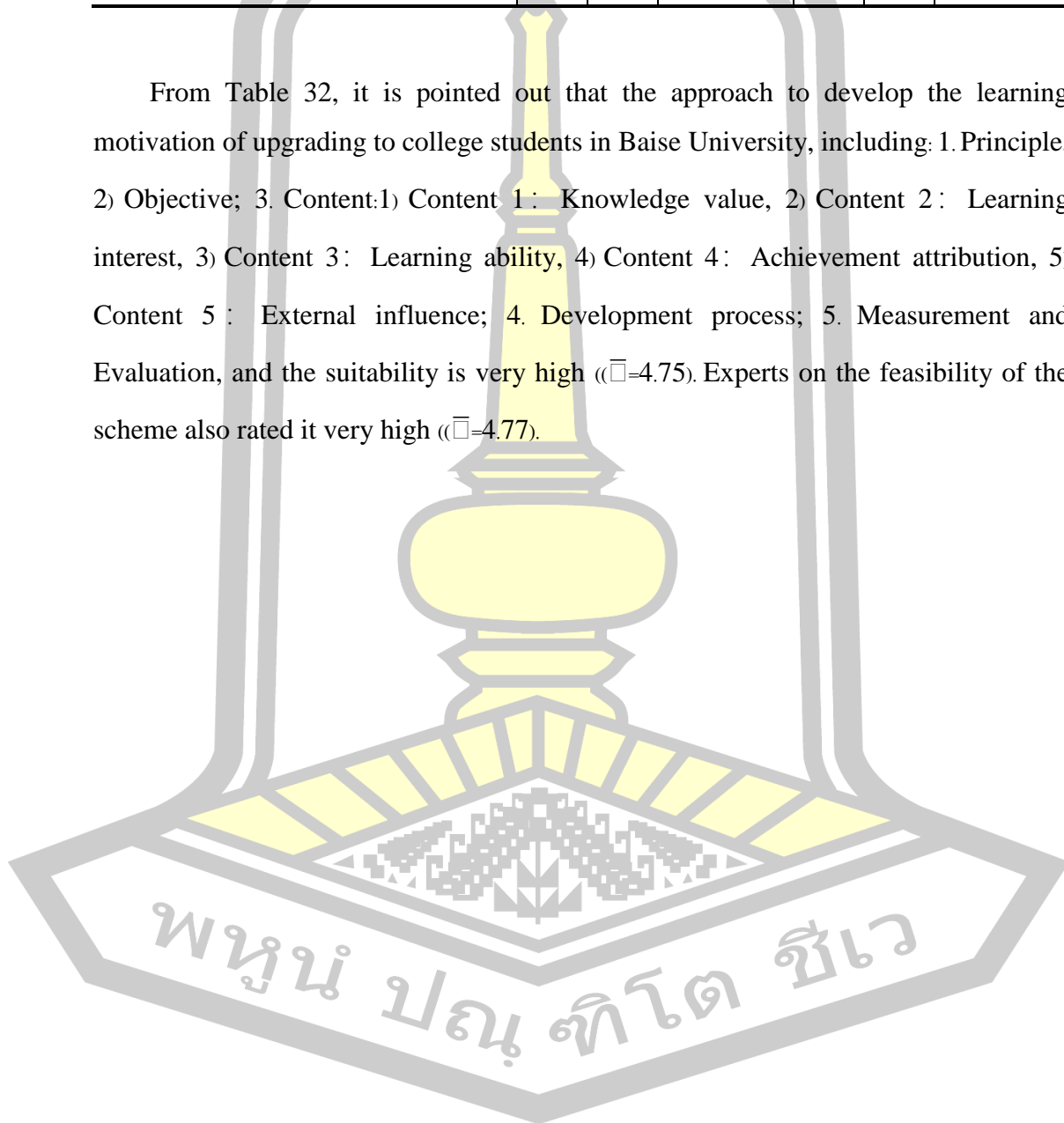
Evaluation List	Suitability			Feasibility		
	\bar{X}	S.D.	Interpret	\bar{X}	S.D.	Interpret
1. Principle	4.75	0.41	Very High	4.82	0.33	Very High
2. Objective	4.68	0.34	Very High	4.65	0.41	Very High
3. Content						
3.1 Content 1: Knowledge value	4.62	0.52	Very High	4.81	0.34	Very High
3.2 Content 2: Learning interest	4.81	0.43	Very High	4.73	0.34	Very High
3.3 Content 3: Learning ability	4.71	0.44	Very High	4.76	0.42	Very High
3.4 Content 4 : Achievement attribution	4.74	0.38	Very High	4.71	0.35	Very High
3.5 Content 5 : External influence	4.83	0.35	Very High	4.74	0.43	Very High
4. Development Process						
4.1 Experience	4.69	0.32	Very High	4.82	0.33	Very High
4.2 Present Worth	4.71	0.33	Very High	4.65	0.41	Very High
4.3 Future Usefulness	4.73	0.35	Very High	4.81	0.34	Very High
4.4 Need Matching	4.80	0.39	Very High	4.73	0.34	Very High
4.5 Modeling	4.70	0.32	Very High	4.76	0.42	Very High
4.6 Choice	4.75	0.36	Very High	4.71	0.35	Very High
4.7 Incongruity, Conflict	4.73	0.35	Very High	4.74	0.43	Very High
4.8 Concreteness	4.75	0.36	Very High	4.68	0.38	Very High

4.9 Variability	4.85	0.41	Very High	4.75	0.45	Very High
4.10 Humor	4.70	0.33	Very High	4.69	0.51	Very High
4.11 Inquiry	4.82	0.40	Very High	4.83	0.36	Very High
4.12 Participation	4.67	0.39	Very High	4.77	0.42	Very High
4.13 Learning Requirements	4.84	0.41	Very High	4.75	0.38	Very High
4.14 Difficulty	4.68	0.45	Very High	4.84	0.41	Very High
4.15 Expectations	4.73	0.37	Very High	4.68	0.45	Very High
4.16 Attributions	4.80	0.39	Very High	4.73	0.37	Very High
4.17 Self-Confidence	4.86	0.45	Very High	4.75	0.40	Very High
4.18 Natural Consequences	4.73	0.41	Very High	4.80	0.45	Very High
4.19 Unexpected Rewards	4.69	0.37	Very High	5.00	0.00	Very High
4.20 Positive Outcomes	4.84	0.34	Very High	4.84	0.41	Very High
4.21 Negative Influences	4.82	0.43	Very High	4.73	0.37	Very High
4.22 Scheduling	4.83	0.36	Very High	4.81	0.43	Very High
4.23 Learning Requirements	4.68	0.38	Very High	4.75	0.38	Very High
4.24 Expectations	4.75	0.45	Very High	4.82	0.38	Very High
4.25 Need Matching	4.69	0.51	Very High	4.79	0.45	Very High
4.26 Present Worth	4.83	0.36	Very High	4.74	0.43	Very High
4.27 Future Usefulness	4.77	0.42	Very High	4.81	0.32	Very High
4.28 Variability	4.75	0.38	Very High	4.82	0.38	Very High

5. Measurement and Evaluation

5.1 Pre-development assessment	4.64	0.36	Very High	4.84	0.41	Very High
5.2 Mid-development assessment	4.72	0.42	Very High	4.68	0.45	Very High
5.3 Post-development assessment	4.66	0.43	Very High	4.73	0.37	Very High
Total	4.75	0.39	Very High	4.77	0.38	Very High

From Table 32, it is pointed out that the approach to develop the learning motivation of upgrading to college students in Baise University, including: 1. Principle, 2) Objective; 3. Content: 1) Content 1: Knowledge value, 2) Content 2: Learning interest, 3) Content 3: Learning ability, 4) Content 4: Achievement attribution, 5) Content 5: External influence; 4. Development process; 5. Measurement and Evaluation, and the suitability is very high ($\bar{x}=4.75$). Experts on the feasibility of the scheme also rated it very high ($\bar{x}=4.77$).



CHAPTER V

CONCLUSION

Research on supplementary approach to develop the learning motivation of upgrading to college students in Baise University. Researchers summarize the research findings, discuss the results, and provide recommendations in the following order:

1. Research significance
2. Summary of findings
3. Discussion of results
4. Recommendations

Significance of the research

1. To investigate the constituent components and indicators of learning motivation of upgrading to college students in Baise University.
2. To explore the current states, desired states and need Assessment of learning motivation of upgrading to college students in Baise University.
3. To design and evaluate the appropriate approach to develop the learning motivation of upgrading to college students in Baise University.

Summary of results

- 1. To investigate the constituent components and indicators of learning motivation of upgrading to college students in Baise University.**

The developing of upgrading to college students' learning motivation in Baise University comprises 5 components: 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution, and 5) External influence.

Indicators include

1. Knowledge value. It comprises 5 indicators, including 1) Intrinsic value, 2) Practical value, 3) Social contribution value, 4) Self-actualization value, and 5) Lifelong learning value.

2. Learning interest. It comprises 5 indicators, including 1) Subject interest, 2) Exploration and discovery interest, 3) Interest in practical application, 4) Interest in cooperative learning, and 5) Interest in self-directed learning.

3. Learning ability. It comprises 5 indicators, including 1) Self-efficacy, 2) Time management ability, 3) Learning strategy use ability, 4) Adaptive learning ability, and 5) Self-monitor and reflect ability.

4. Achievement attribution. It comprises 5 indicators, including 1) Effort attribution, 2) Ability attribution, 3) Task difficulty attribution, 4) Luck attribution, and 5) Situation attribution.

5. External influence. It comprises 5 indicators, including 1) Teacher's support, 2) Classmate interaction, 3) School culture, 4) Societal expectations and values, and 5) Family environment.

2. To explore the current states, desired states and need Assessment of learning motivation of upgrading to college students in Baise University.

The researchers concluded as follows: The current status of upgrading to college students' learning motivation in Baise University is generally at a medium level. However, they believe that the desired state of upgrading to college students' learning motivation is at the highest level. The order of the perceived needs for developing upgrading to college students' learning motivation is: 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution and 5) External influence.

3. Design an approach to develop the learning motivation of upgrading to college students in Baise University.

The approach to develop the learning motivation of upgrading to college students in Baise University consists of 5 components, including 1) Principle, 2) Objective, 3) Content, 4) Development Process, and 5) Evaluation. This is designed to strengthen the

understanding of the principles underlying the learning motivation of upgrading to college students in Baise University. The approach encompasses 5 aspects: 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution, and 5) External influence. It involves the development of upgrading to college students' learning motivation through 5 modules: Module 1: Knowledge value, Module 2: Learning interest, Module 3: Learning ability, Module 4: Achievement attribution, Module 5: External influence. The development format is ARCS Motivation Model. The development strategies are diverse, including 1) Experience, 2) Present Worth, 3) Future Usefulness, 4) Need Matching, 5) Modeling, 6) Choice, 7) Incongruity, Conflict, 8) Concreteness, 9) Variability, 10) Humor, 11) Inquiry, 12) Participation, 13) Learning Requirements, 14) Difficulty, 15) Expectations, 16) Attributions, 17) Self-Confidence, 18) Natural Consequences, 19) Unexpected Rewards, 20) Positive Outcomes, 21) Negative Influences, 22) Scheduling, 23) Learning Requirements, 24) Expectations, 25) Need Matching, 26) Present Worth, 27) Future Usefulness, 28) Variability. Assessment was conducted before and after development to evaluate the suitability and feasibility of the approach for developing the learning motivation of upgrading to college students in Baise University, Overall, the approach's suitability is highest, the feasibility is highest.

Discussion of Results

Through research on the capacity of Double-Qualified teachers in local applied universities, researchers discussed the following findings:

1. The composition and index of upgrading to college students' learning motivation in Baise University.

In the first stage, the research results show that there are 5 components of upgrading to college students' learning motivation in Baise University, including: 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution, and 5) External influence.

1.1 Knowledge value

In the component of Knowledge value, respondents agreed that upgrading to college students should need to realize following values of knowledge: 1) Students believe that knowledge is valuable in itself and are curious about learning it, 2) Students believe that learning can help them solve problems or improve the quality of life in real life, 3) Students believe that they can contribute to society by learning, 4) Students use learning as a means to pursue and realize their personal values, 5) Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world. Consistent with the research findings of Wu Yuqi (2023), he thinks that intrinsic value, practical value, occupational value, cultural understanding value and lifelong learning value have important influence to learning motivation. And consistent with the research findings of Qin Jiayu (2021), she emphasizes a series of key aspects on the learning motivation of students, which has some special features with grasping the value of knowledge.

1.2 Learning interest

In the component of Learning interest, respondents agreed that upgrading to college students should need to develop following learning interest: 1) Students are interested in a particular subject or area of knowledge, 2) Students are interested in the exploration and discovery of new knowledge, new skills and new concepts, 3) Students are interested in applying their knowledge to real situations and solving real problems, 4) Students are interested in learning with others, sharing knowledge and solving problems collaboratively, 5) Students are interested in choosing their own learning objectives and resources and learning at their own pace. Consistent with the research findings of Lu Juan, et al. (2022), the results show that the intensity level of learning motivation of the respondents is mainly moderate motivation, and the main influencing factors are Activity interest, Subject interest, Exploration and discovery interest, Interest in problem solving, practical application, cooperative learning, competition and achievement, Techniques and tools, and self-directed learning. And consistent with the

research findings of Ma Chuanyu (2023), he finds that Subject interest, Exploration and discovery interest, Interest in practical application and competition and achievement are important factors to promote students' perfectionism, stimulate their academic enthusiasm and improve their learning motivation as an intermediary.

1.3 Learning ability

In the component of Learning ability, respondents agreed that upgrading to college students should need to develop following learning interest: 1) Students are confident in their ability to complete specific learning tasks, 2) Students have the ability to plan and manage study time effectively, 3) Students have the ability to select and apply effective learning strategies, 4) Students have the ability to adapt to new learning environments and challenges, 5) Students have the ability to monitor their own learning process and reflect on learning outcomes. Consistent with the research findings of Li Xuejie (2023), she emphasizes the main factors leading to the decline of motivation include the decline of self-efficacy, insufficient time management ability, improper use of learning strategies, and weak information processing ability. And consistent with the research findings of Zeng Yujie, et al. (2022), she thinks that the five main influencing factors of students' autonomous learning, including learning motivation, learning strategy, learning environment, self-efficacy and goal setting.

1.4 Achievement attribution

In the component of Achievement attribution, respondents agreed that upgrading to college students should need to learn the right way to attribute: 1) Students attribute the learning success or failure to individual effort, 2) Students attribute the success or failure in learning to an individual's inherent ability or intelligence, 3) Students attribute the success or failure to the difficulty of the task itself, 4) Students attribute the learning success or failure to chance or luck, 5) Students attribute learning success or failure to supportive and disruptive factors in the learning environment.

Consistent with the research findings of Zou Yin (2023), he thinks that there is a close relationship between students' learning motivation and attribution style. And consistent with the research findings of Xie Chunqiu (2019), she emphasizes the internal factors such as learning ability and effort level and the external factors such as luck and task difficulty, it is very important to understand the attribution of college students' learning achievement.

1.5 External influence

In the component of External influence, respondents agreed that upgrading to college students should need to adjust the External influence: 1) Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning, 2) Students believe that cooperative learning, competition and social interaction among classmates can affect learning interest and engagement, 3) Students believe that the values, expectations and learning atmosphere of the school affect learning, 4) Students believe that the value society places on education and the values it places on a particular subject affect learning motivation, 5) Students believe that the expectations, support and availability of learning resources provided by the family have an important impact on learning. Consistent with the research findings of Yin Qi (2023), he believes that the influencing factors mainly include teaching methods, classmate, curriculum content, teachers' attitudes, societal expectations, policy and school environment. And consistent with the research findings of Esra Meşe (2021), he emphasizes that teacher's support, classmate interaction, school atmosphere, online course content and structure, system, and family environment has a key influence on students' language learning motivation.

2.The Existent condition, Desire condition, and need Assessment for developing the learning motivation of upgrading to college students in Baise University.

The current overall situation is at a moderate level ($\bar{x}=2.55$). Through data analysis, it was found that 3 aspects are at a low level and 2 aspects are at a moderate level, with External influence of upgrading to college students' learning motivation in Baise University at the highest level ($\bar{x}=2.78$). Data analysis also revealed that expectations for various aspects of upgrading to college students' learning motivation are at the highest level ($\bar{x}=4.86$); therefore, there is room for development in the upgrading to college students' learning motivation in Baise University. When prioritized from highest to lowest, the order is as follows: 1) Knowledge value ($PNI_{\text{modified}}=1.09$), 2) Learning interest ($PNI_{\text{modified}}=1.05$), 3) Learning ability ($PNI_{\text{modified}}=0.96$), 4) Achievement attribution ($PNI_{\text{modified}}=0.75$), 5) External influence ($PNI_{\text{modified}}=0.73$). Each component of upgrading to college students' learning motivation has a similar level of improvement requirement. Consequently, the components of upgrading to college students' learning motivation, including Knowledge value, Learning interest, Learning ability, Achievement attribution, and External influence, have similar levels of developmental needs. This may be due to participants, including upgrading to college students, teachers and school administrators, expressing correct attitude are crucial in the process of developing upgrading to college students' learning motivation. It is essential to understand the level of upgrading to college students' learning motivation and adapt to changes effectively to achieve the school's cultivation goals. This is crucial, as the development of upgrading to college students' learning motivation in universities consistent with the research findings of Huang Zhi (2017), he uncovering that knowledge, interest, ability and external factors influences students' learning motivation is important for teachers understanding how to create a good environment focusing on learning. Consistent with the research findings of Zou Min (2023), he puts forward some measures such as guiding students to establish a correct learning view, setting up mutual aid groups, improving teachers' teaching level, etc., in order to stimulate students' learning motivation and promote the improvement of learning quality of students. And consistent with the research findings of Chen Shanyong (2023), he explores ways of education suitable for

contemporary college students, caring for their needs, providing family and campus conditions for their development and growth. Respect students' ideas, through the goal of motivation, to help students continue to enhance their learning self-confidence, stimulate continuous learning motivation. Overall, the learning motivation of upgrading to college students in Baise University are at a relatively high level and positively correlated with the effectiveness of universities educational quality.

3. Develop the learning motivation of upgrading to college students in Baise University, design and evaluate the corresponding approach.

The approach developing learning motivation of upgrading to college students in Baise University encompass 5 components: 1) Principle, 2) Objective, 3) Content, 4) Development Process, and 5) Evaluation. These components consist of 5 contents: Content 1: Knowledge value, Content 2: Learning interest, Content 3: Learning ability, Content 4: Achievement attribution, and Content 5: External influence. Content 5: External influence, aimed at adjusting the external environment's influence to students' learning motivation, exhibited the highest suitability, with an average suitability score of 4.75. Based on the fundamental concepts of project development, this study concludes that the development of upgrading to college students' learning motivation in Baise University aligns with project activities related to the development of students' knowledge, interest, ability, attribution methods and external influence, consistent with the research findings of Wang Zhiqiang and Xiong Shunshun (2021). According to the research findings, the approach comprises 5 crucial components: Principles, Objectives, Content, Development Process, and Measurement and Evaluation. Furthermore, the approach is Consist with the research result of Wang Guangming and Wei Qianping (2019), which identified key components of the plan, including basic concepts, principles, objectives, content, development methods, and evaluation. Furthermore, the approach is consistent with the research result of Shi Xiaoping (2023) and Han Jiwei (2023), which identified key components of an approach, including principles, objectives, content, development methods, development process. Consistent with the

research result of Han Jiqin (2019) research explored the development of upgrading to college students' learning motivation, with components including introduction, objectives, principles, plan components, detailed plan content for each module, and assessment and evaluation methods. The research findings indicate that the upgrading to college students' learning motivation in Baise University are at a relatively high level, with high satisfaction among administrators regarding the approach.

Suggestion

1. Suggestion on implementing research findings

1.1 The research findings indicate that the adaptability of upgrading to college students' learning motivation in Baise University is generally at a medium level, with the overall suitability of the upgrading to college student adaptation project reaching the highest level ($\bar{x}=4.75$). Upgrading to college student consistent levels of demand for learning motivation adaptation across various domains, albeit with varying rankings. These domains include 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution, and 5) External influence. Therefore, both the administrators of Baise University and university in the region should strengthen and develop upgrading to college students' learning motivation in all aspects, whether in Knowledge value, Learning interest, Learning ability, Achievement attribution, and External influence.

1.2 The overall suitability of the approach developing learning motivation of upgrading to college students in Baise University is highly appropriate. It aligns with the Principle, Objective, Content, Development Process, and Evaluation. Therefore, university teachers and administrators should utilize these approaches to effectively develop the learning motivation of upgrading to college students.

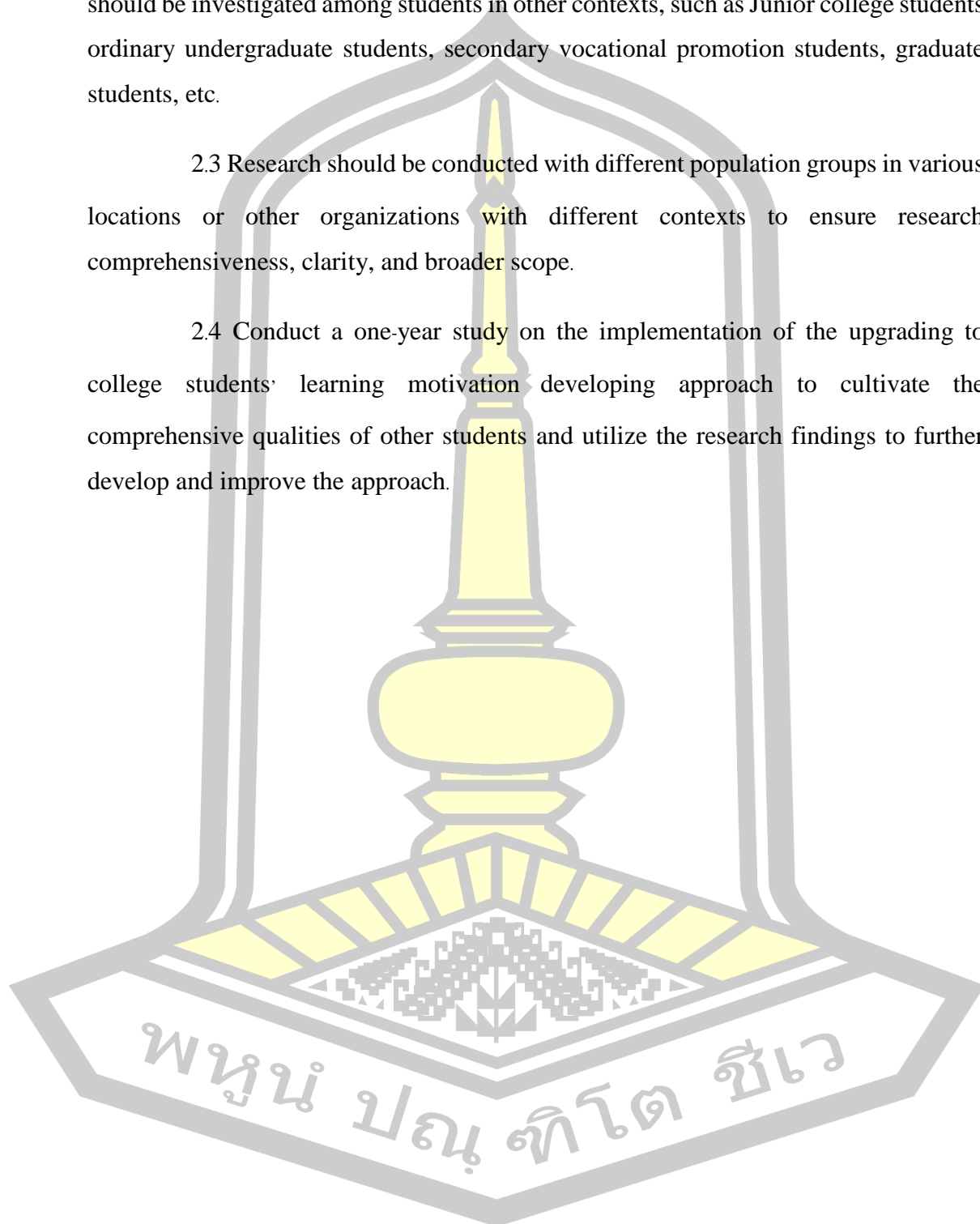
2. Suggestion for future research

2.1 The development research of upgrading to college students' learning motivation enhancement approach should adopt a variety of methods.

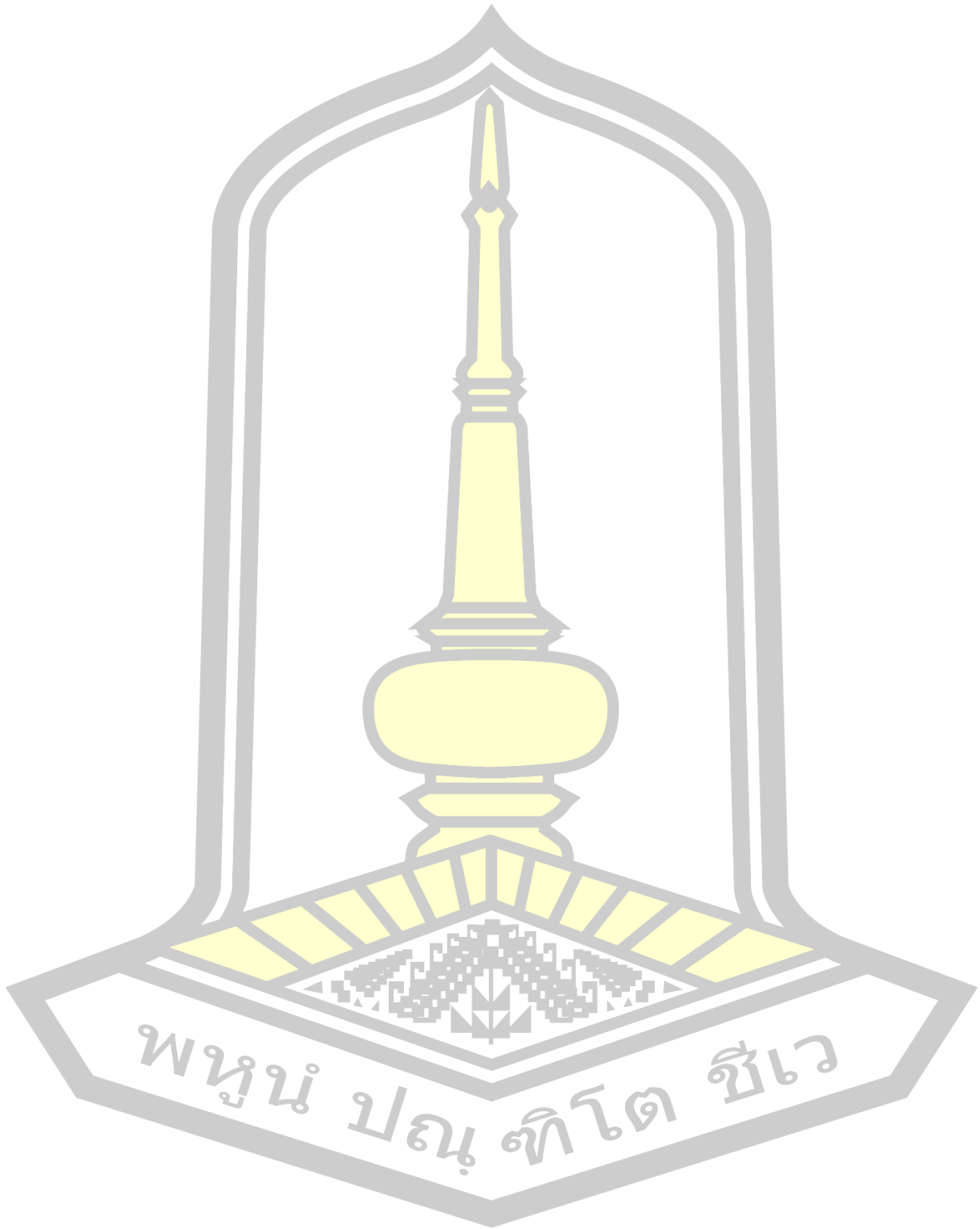
2.2 The development of upgrading to college students' learning motivation should be investigated among students in other contexts, such as Junior college students, ordinary undergraduate students, secondary vocational promotion students, graduate students, etc.

2.3 Research should be conducted with different population groups in various locations or other organizations with different contexts to ensure research comprehensiveness, clarity, and broader scope.

2.4 Conduct a one-year study on the implementation of the upgrading to college students' learning motivation developing approach to cultivate the comprehensive qualities of other students and utilize the research findings to further develop and improve the approach.



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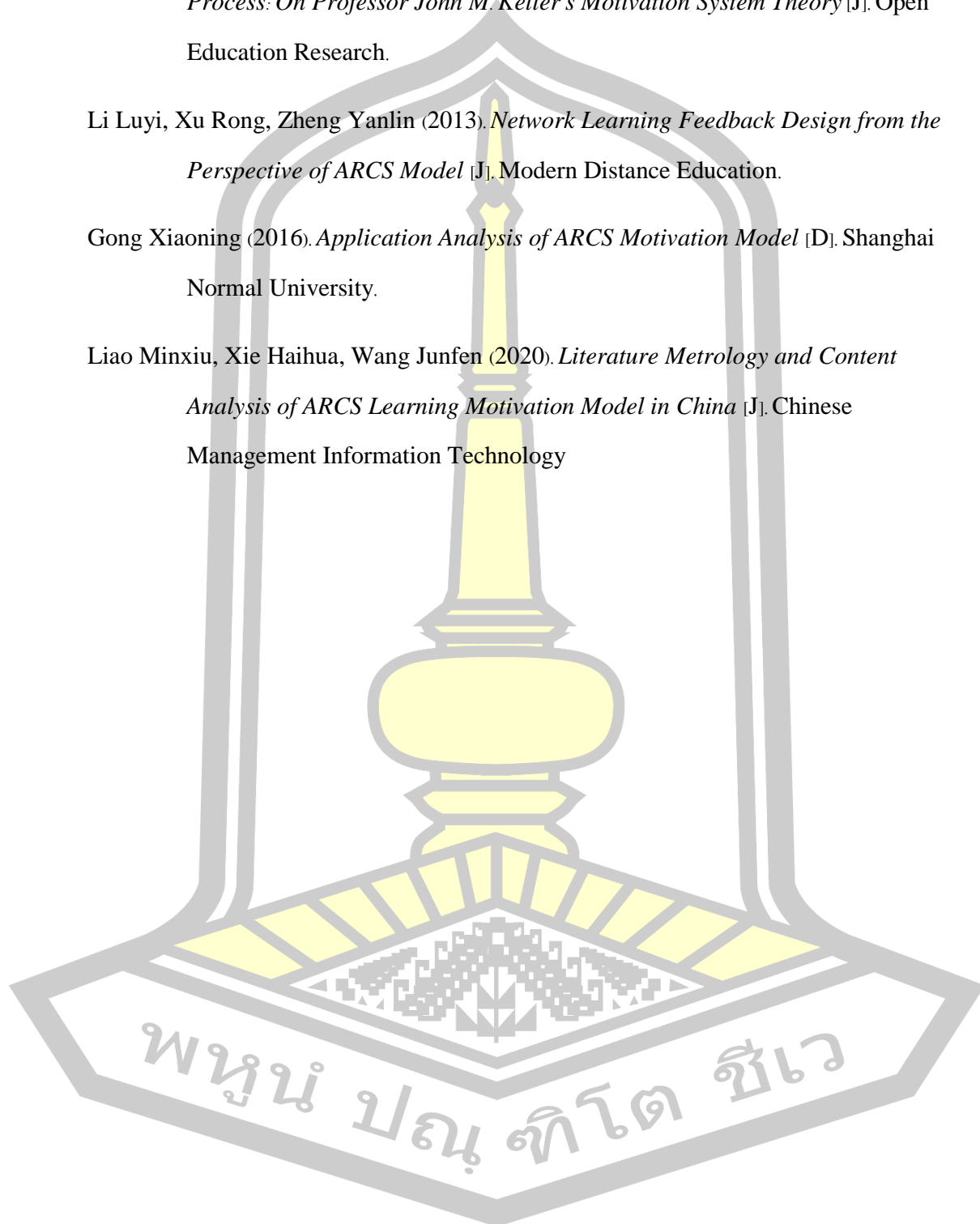
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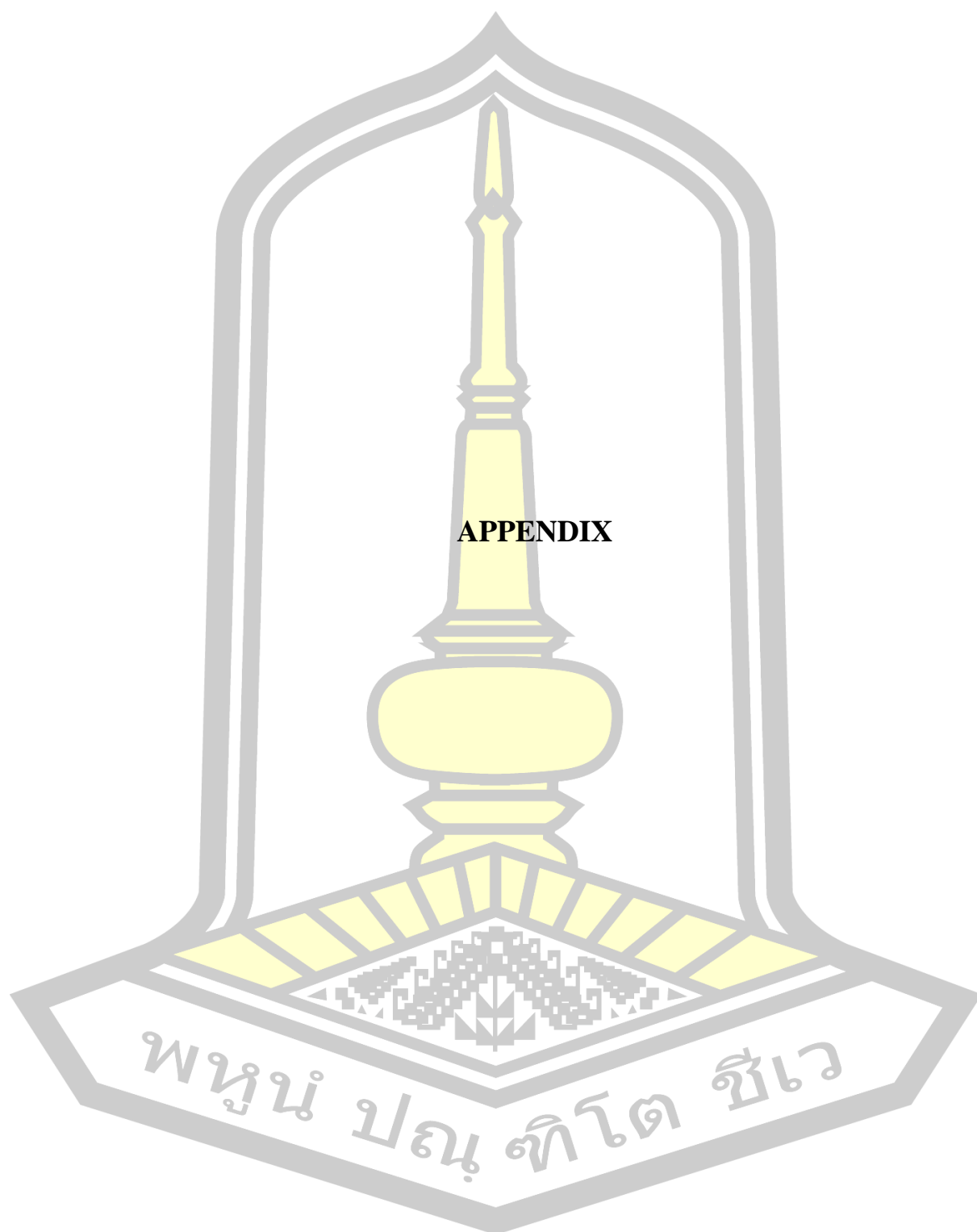
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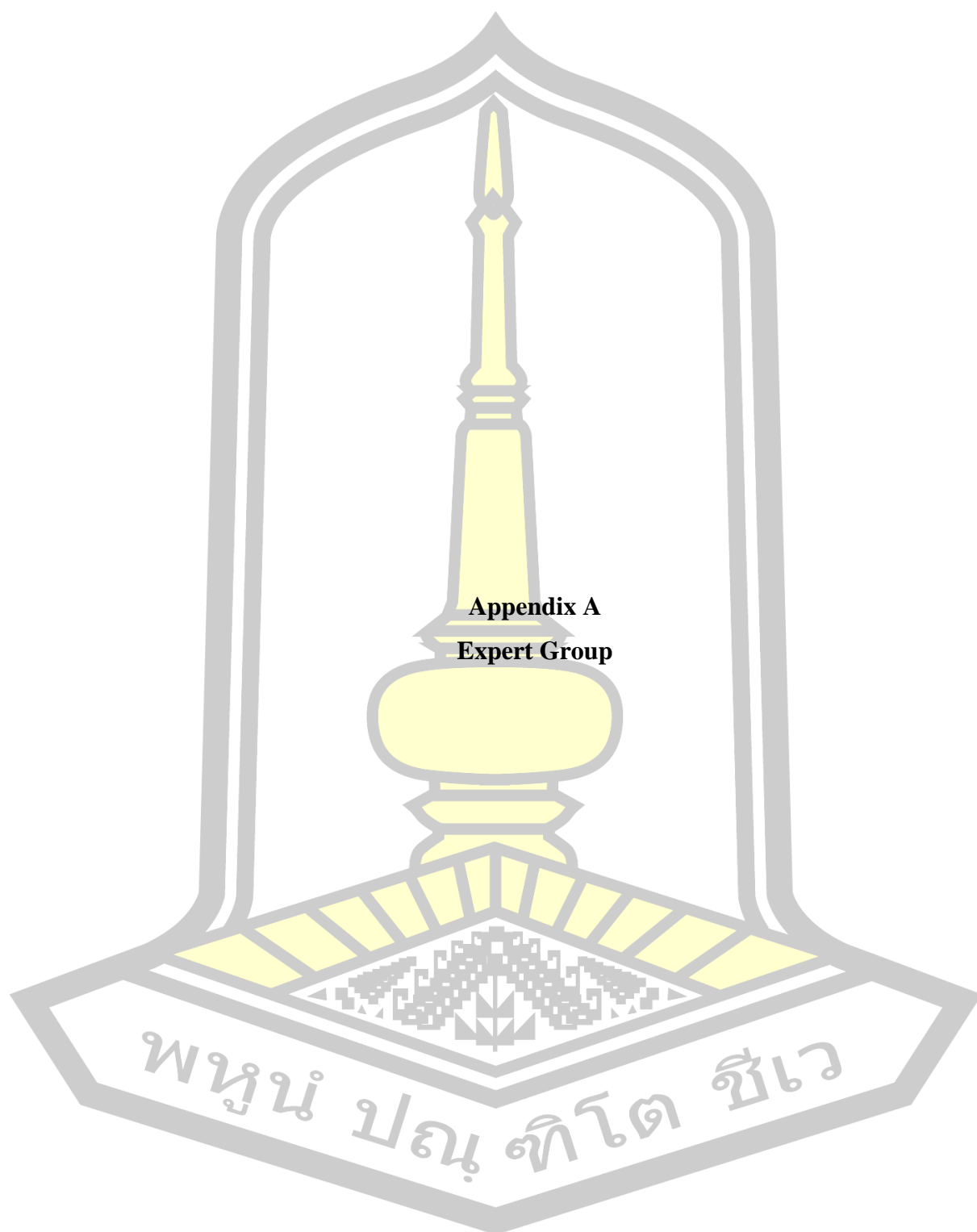
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APPENDIX



Appendix A
Expert Group

พหุจน์ ปณู ทิโต สีเว

Group 1: Assessment of the suitability of components and indicators by qualified (Focus Group) groups of informants, including 5 experts:

- 1) Assoc. Prof. Dr. Pacharawit Chansirisira, Department of Educational Administration, Faculty of Education, Maharakham University.
- 2) Asst. Prof. Dr. Surachet Noirid, Lecturer of Research and Development, Faculty of Education, Maharakham University.
- 3) Professor Liu Fang, Vice President, Baise University, Guangxi, China.
- 4) Professor Cao Alin, Director of Academic Affairs Office, Baise University, Guangxi, China.
- 5) Professor Wang Fang, Director of Center for Teaching Quality Evaluation, Baise University, Guangxi, China.

Group 2: Evaluation for the research and development tools, including 5 experts:

- 1) Professor Liu Fang, Vice President, Baise University, Guangxi, China.
- 2) Professor Wang Fang, Director of Center for Teaching Quality Evaluation, Baise University, Guangxi, China.
- 3) Professor Cao Alin, Director of the Academic Affairs Office, Baise University, Guangxi, China.
- 4) Professor Yang Xiufu, Dean of Faculty of Education, Baise University, Guangxi, China.
- 5) Professor Wen Fengping, Deputy Director of Academic Affairs Office, Baise University, Guangxi, China.

Group 3: Experts which from best practice review the procedures of the research approach and give their opinion on the consistency of the problem.

1) Professor Xu Shuye, Vice President, Nanning Normal University, Guangxi, China.

2) Professor Jiang Hongxing, Vice President, Hezhou University, Guangxi, China.

3) Professor Qin Chengbu, Director of Teaching Management, Nanning Normal University, Guangxi, China.

4) Professor Chen Yihu, Director of Teaching Management, Hezhou University, Guangxi, China.

5) Professor Pu Ricai, Director of Faculty of Teacher Education, Hezhou University, Guangxi, China.

Group 4: Experts assess the suitability and feasibility of the approach to develop learning motivation of upgrading to college students in Baise University.

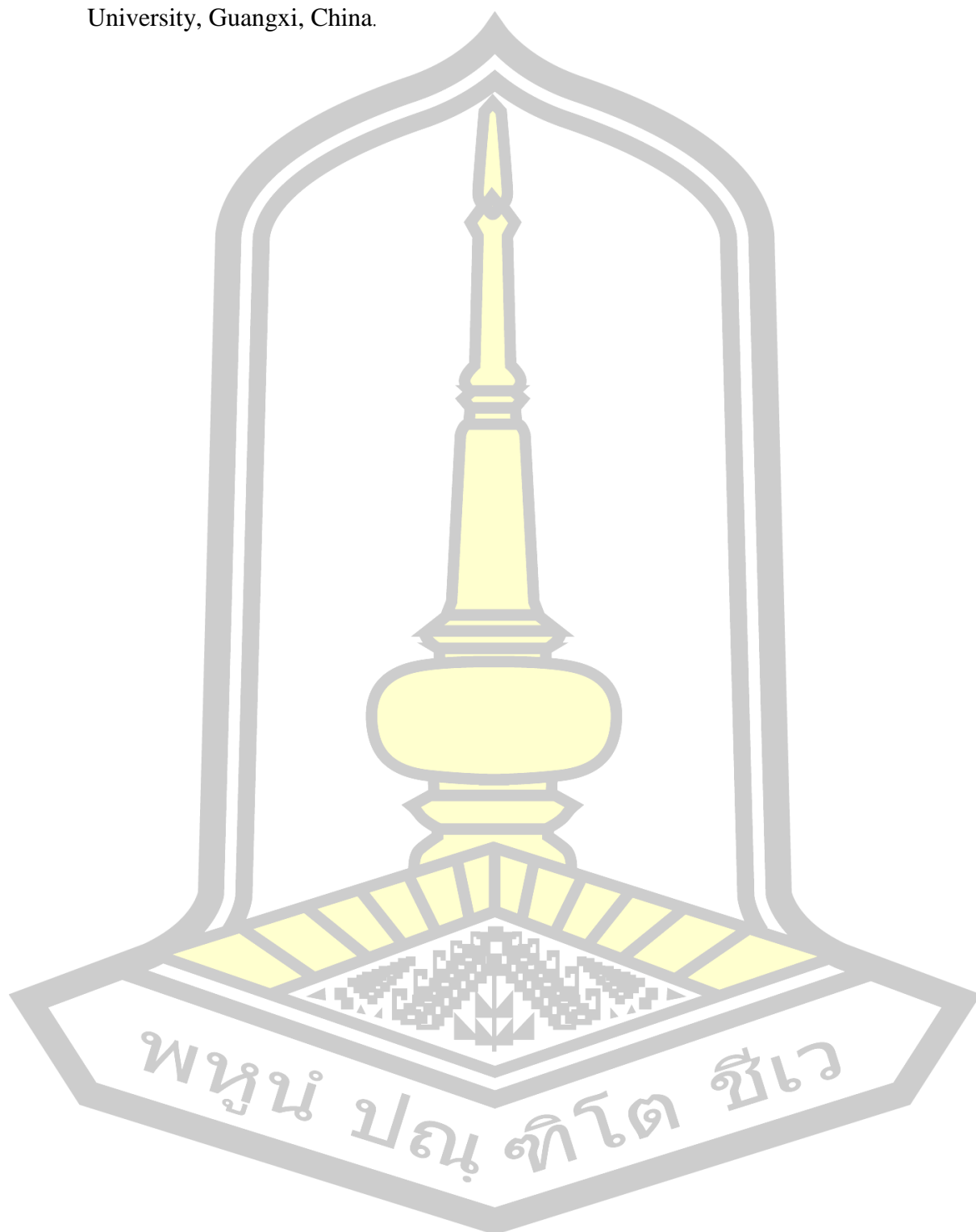
1) Professor Liu Fang, Vice President, Baise University, Guangxi, China.

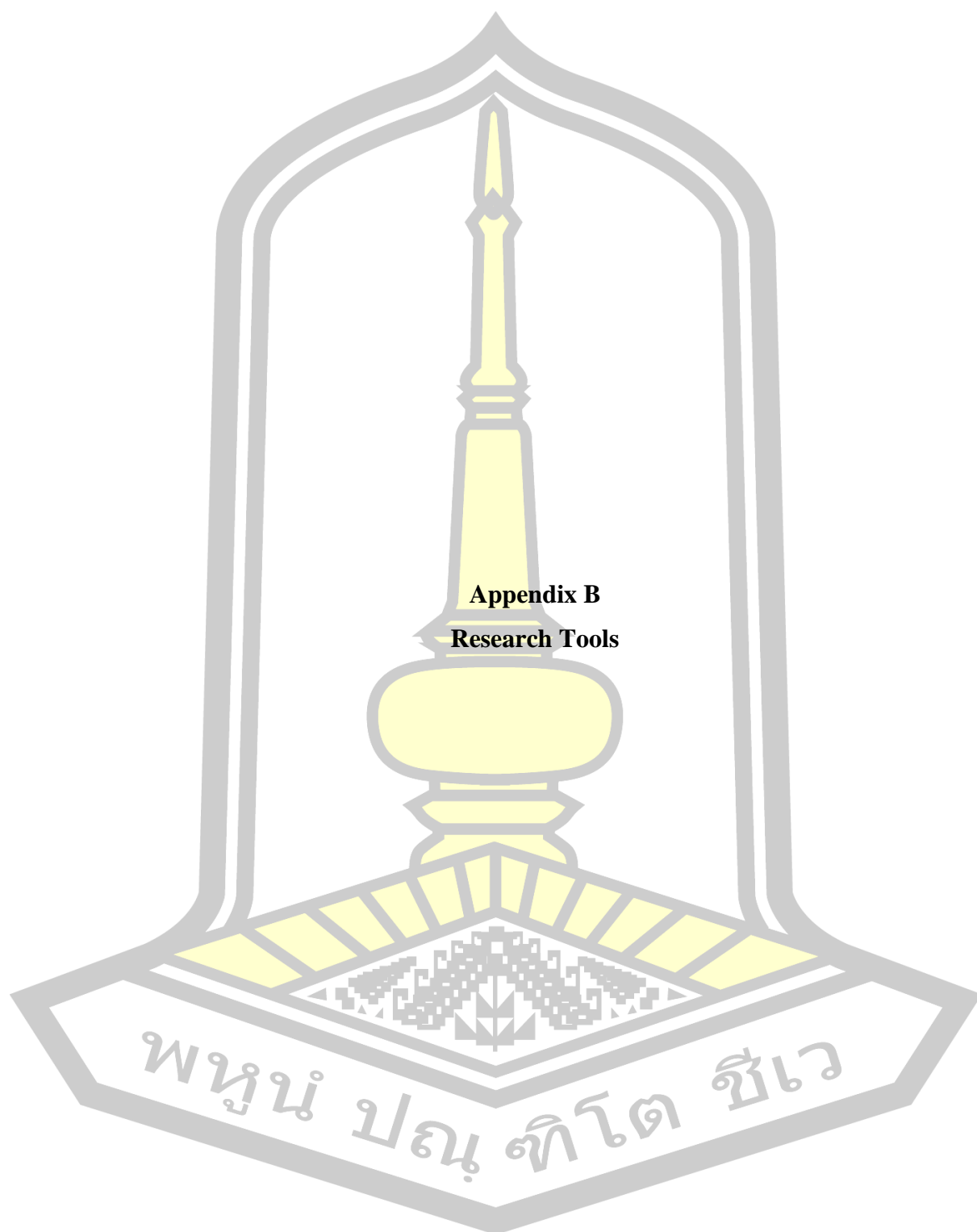
2) Professor Wang Fang, Director of Center for Teaching Quality Evaluation, Baise University, Guangxi, China.

3) Professor Cao Alin, Director of Academic Affairs Office, Baise University, Guangxi, China.

4) Professor Huang Jianxiong, Director of Center for Subject Development, Baise University, Guangxi, China.

5) Professor Wu Xianyong, Dean of Faculty of International Education, Baise University, Guangxi, China.





Appendix B
Research Tools

พหุจน์ ปณฺ ทิโต ชีเว

Assessment Form for Content Validity in Research:

Learning Motivation of Upgrading to College Students

Adjustment Program

Instruction

1. The components of learning motivation of upgrading to college student reflected in this tool are derived from scholars with diverse academic backgrounds, offering perspectives, concepts, and theories on learning motivation.

2. Please consider the consistency between each question and the defined criteria, which serve as guidelines for scoring.

4.51-5.00 When you determine that the question conformance with the definition is highest

3.51-4.50 When you determine that the question conformance with the definition is high

2.51-3.50 When you determine that the question conformance with the definition is medium

1.51-2.50 When you determine that the question conformance with the definition is low

1.00-1.50 When you determine that the question conformance with the definition is lowest

3. In cases where you believe that a question should be improved or modified in terms of language usage, please provide suggestions in the right-hand column of that specific question item. Alternatively, if you have any additional suggestions, please specify in the assessment form.

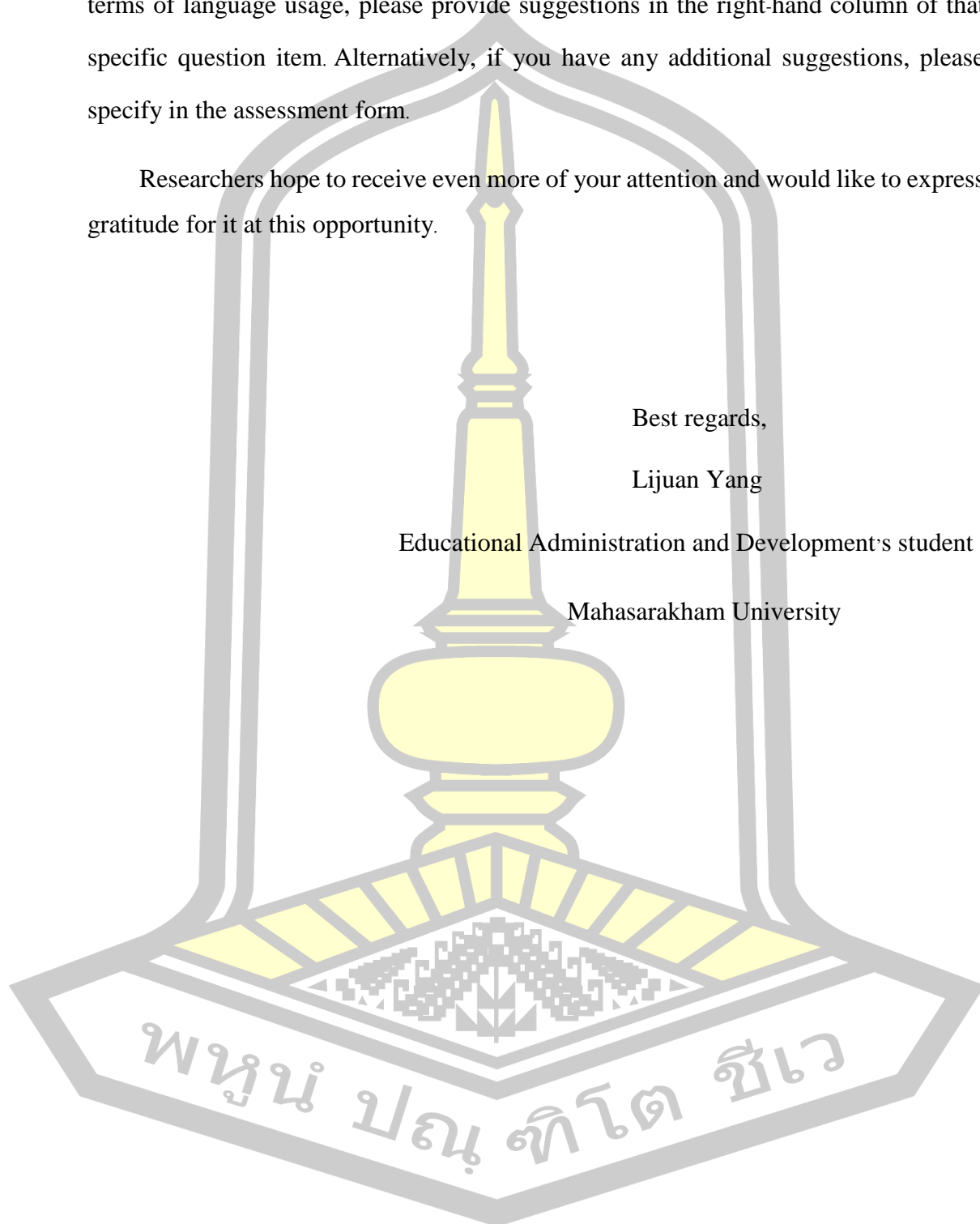
Researchers hope to receive even more of your attention and would like to express gratitude for it at this opportunity.

Best regards,

Lijuan Yang

Educational Administration and Development's student

Maharakham University



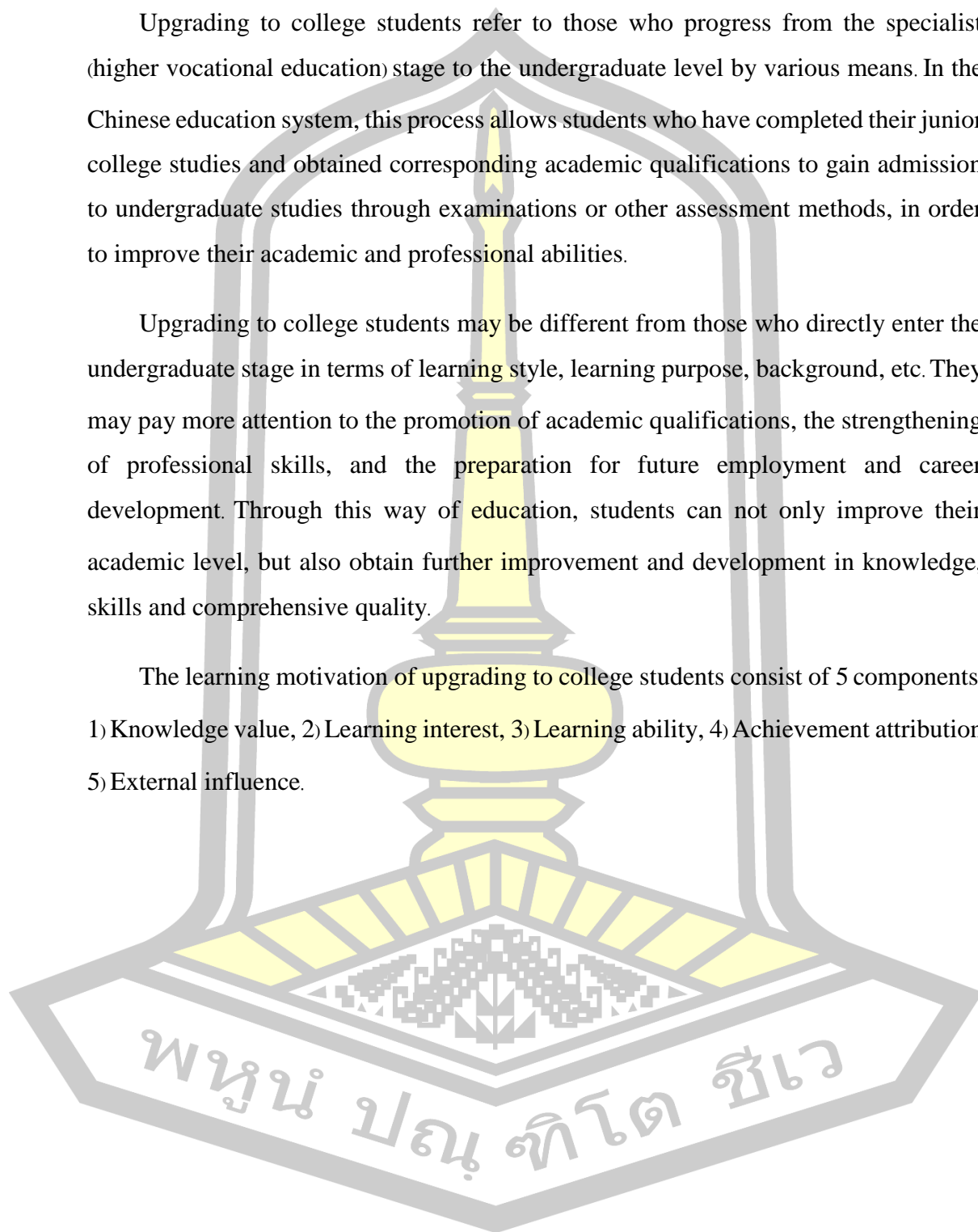
Upgrading to College Students

Upgrading to college students refer to those who progress from the specialist (higher vocational education) stage to the undergraduate level by various means. In the Chinese education system, this process allows students who have completed their junior college studies and obtained corresponding academic qualifications to gain admission to undergraduate studies through examinations or other assessment methods, in order to improve their academic and professional abilities.

Upgrading to college students may be different from those who directly enter the undergraduate stage in terms of learning style, learning purpose, background, etc. They may pay more attention to the promotion of academic qualifications, the strengthening of professional skills, and the preparation for future employment and career development. Through this way of education, students can not only improve their academic level, but also obtain further improvement and development in knowledge, skills and comprehensive quality.

The learning motivation of upgrading to college students consist of 5 components:

- 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution, 5) External influence.



Component 1: Knowledge value

The cognition of the value of knowledge, or knowledge values, refers to the views, evaluations and beliefs held by individuals or societies about knowledge itself. This includes Intrinsic value, Practical value, Social contribution value, Self-actualization value, Lifelong learning value. Knowledge values not only reflect an individual's attitude towards learning and education, but also reflect the overall importance of knowledge and learning in a society or culture.

Items	Existent condition and Desire condition	Level of Indicator					Recommendation
		5	4	3	2	1	
1	Students believe that knowledge is valuable in itself and are curious about learning it						
2	Students believe that learning can help them solve problems or improve the quality of life in real life						
3	Students believe that they can contribute to society by learning						
4	Students use learning as a means to pursue and realize their personal values						
5	Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world						

Component 2: Learning interest

Direct interest in learning, often referred to as interest in learning, refers to an individual's mental state of curiosity, involvement and enthusiasm for the learning activity itself. This interest is derived from the content itself or the satisfaction of the learning process. Interest in learning makes individuals willing to invest time and energy to explore and learn. It includes Subject interest, Exploration and discovery interest, Interest in practical application, Interest in cooperative learning, Interest in self-directed learning.

Items	Existent condition and Desire condition	Level of Indicator					Recommendation
		5	4	3	2	1	
1	Students are interested in a particular subject or area of knowledge						
2	Students are interested in the exploration and discovery of new knowledge, new skills and new concepts						
3	Students are interested in applying their knowledge to real situations and solving real problems						
4	Students are interested in learning with others, sharing knowledge and solving problems collaboratively						
5	Students are interested in choosing their own learning objectives and resources and learning at their own pace.						

Component 3: Learning ability

The perception of one's own learning ability, often referred to as the sense of learning ability, refers to the belief and assessment of one's ability to complete learning tasks and achieve learning goals. This perception affects an individual's learning motivation, learning behavior, and persistence in the face of learning challenges. The sense of learning ability is a specific application of the concept of self-efficacy in psychology in the field of education, which emphasizes the subjective judgment and confidence level of individuals on their own learning ability. It includes Self-efficacy, Time management ability, Learning strategy use ability, Adaptive learning ability, Self-monitor and reflect ability.

Items	Existent condition and Desire condition	Level of Indicator					Recommendation
		5	4	3	2	1	
1	Students are confident in their ability to complete specific learning tasks						
2	Students have the ability to plan and manage study time effectively						
3	Students have the ability to select and apply effective learning strategies						
4	Students have the ability to adapt to new learning environments and challenges						
5	Students have the ability to monitor their own learning process and reflect on learning outcomes						

Component 4: Achievement attribution

Achievement Attribution is a concept in psychology that refers to the process by which individuals account for their experiences of success or failure, i.e. how individuals attribute their academic performance or achievements to specific causes. The concept derives from the Attribution Theory, developed by the psychologist Heider and further developed by Weiner, which focuses on how individuals interpret their own and others' actions and their outcomes. It includes Effort attribution, Ability attribution, Task difficulty attribution, External help attribution, Emotional state attribution.

Items	Existent condition and Desire condition	Level of Indicator					Recommendation
		5	4	3	2	1	
1	Students attribute the learning success or failure to individual effort						
2	Students attribute the success or failure in learning to an individual's inherent ability or intelligence						
3	Students attribute the success or failure to the difficulty of the task itself						
4	Students attribute the learning success or failure to chance or luck						
5	Students attribute learning success or failure to supportive and disruptive factors in the learning environment						

Component 5: External influence

There are various external factors that affect learning motivation, which come from learners' environment and social background, including Teacher's support, Classmate interaction, School culture, Societal expectations and values, Family environment. These factors can directly or indirectly affect the learner's motivation level and promote or hinder the learning process.

Items	Existent condition and Desire condition	Level of Indicator					Recommendation
		5	4	3	2	1	
1	Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning						
2	Students believe that cooperative learning, competition and social interaction among classmates can affect learning interest and engagement						
3	Students believe that the values, expectations and learning atmosphere of the school affect learning						
4	Students believe that the value society places on education and the values it places on a particular subject affect learning motivation						
5	Students believe that the expectations, support and availability of learning resources provided by the family have an important impact on learning						

Research Questionnaire

An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University

Instructions

This questionnaire aims to investigate the current state and desired state of the learning motivation of upgrading to college students in Baise University. The researcher kindly requests your participation in responding to this questionnaire to contribute essential data for the research. The questionnaire is divided into two sections.

Part 1: General Information of Respondents

Part 2: Inquire about opinions on the current state and desired state of the learning motivation of upgrading to college students in Baise University. The responses are rated on a 5-point scale.

4.51 - 5.00 refers to the level of the current state and desired state of learning motivation of upgrading to college students in Baise University is very high.

3.51 - 4.50 refers to the level of the current state and desired state of learning motivation of upgrading to college students in Baise University is high.

2.51 - 3.50 refers to the level of the current state and desired state of learning motivation of upgrading to college students in Baise University is medium.

1.51 - 2.50 refers to the level of the current state and desired state of learning motivation of upgrading to college students in Baise University is low.

1.00 - 1.50 refers to the level of the current state and desired state of learning motivation of upgrading to college students in Baise University is very low.

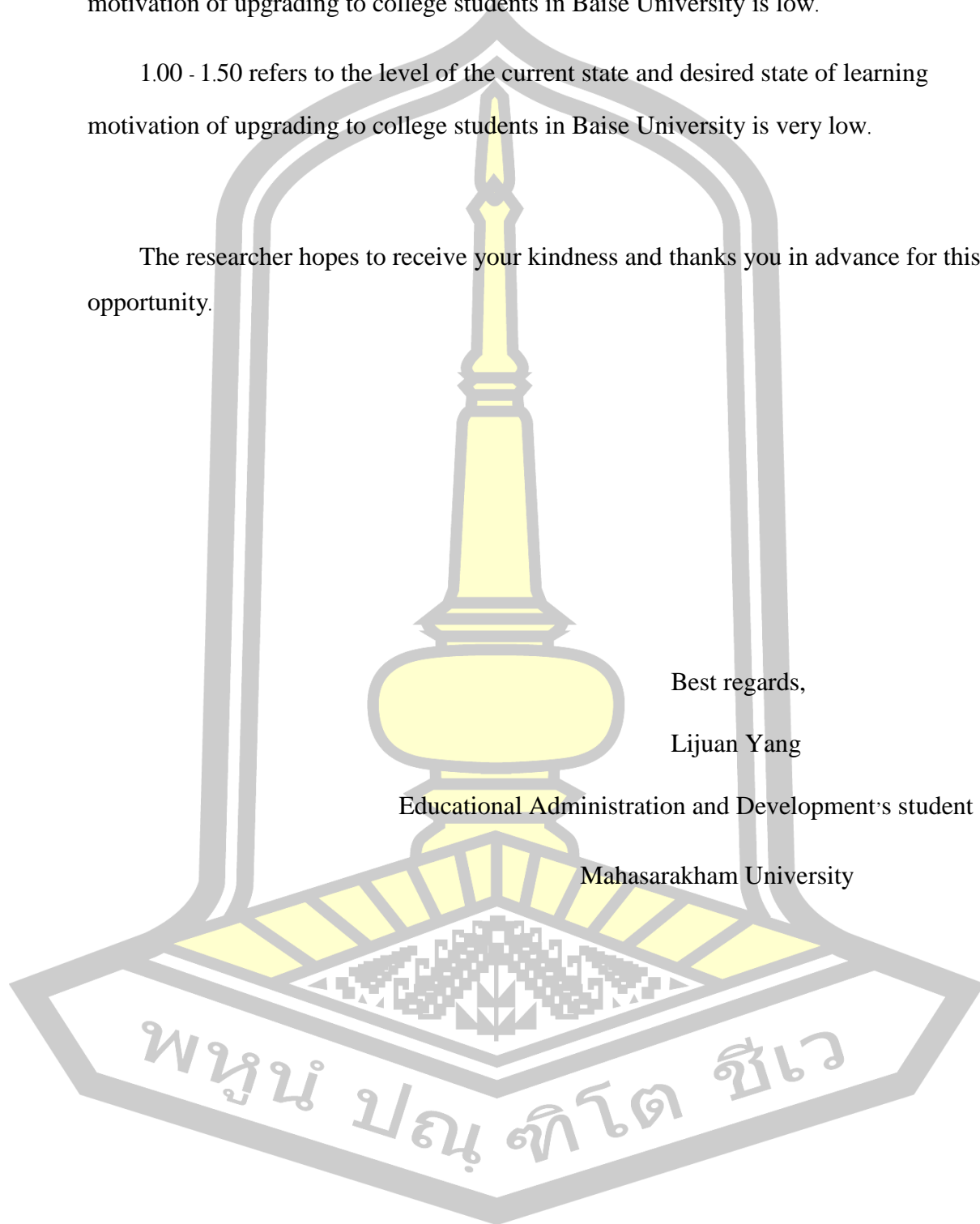
The researcher hopes to receive your kindness and thanks you in advance for this opportunity.

Best regards,

Lijuan Yang

Educational Administration and Development's student

Maharakham University



Part 1: General Information of Respondents

1. What is your gender? Male Female
2. What is your grade?
 - Grade 1 Grade 2
 - Grade 3 Grade 4
3. What is your current Age Group?
 - Under 15 years old 16 - 20 years old
 - 21 - 25 years old 26 - 30 years old
4. What is you major in Vocational College?
 - Science and Engineering Literature and History
 - Education Management
 - Economics Technology
5. What is you major in Undergraduate College?
 - Science and Engineering Literature and History
 - Education Management
 - Economics Technology

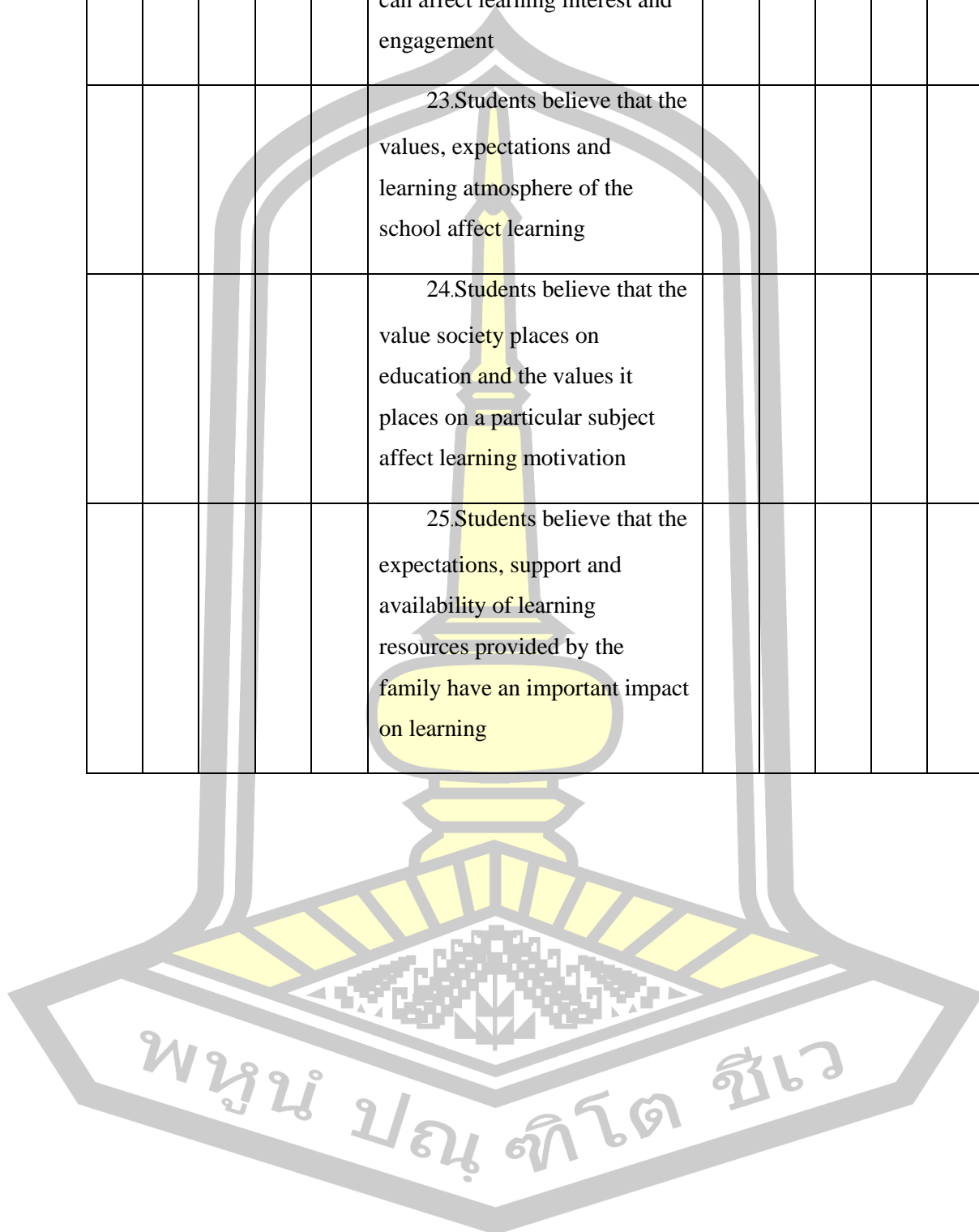
Part 2: Inquire about opinions on the current state and desired state of the learning motivation of upgrading to college students. The responses are rated on a 5-point scale.

Instructions: Please answer each question and statement regarding the components of learning motivation of upgrading to college students. Also, indicate with a checkmark in the column for the current situation and the desired situation.

Existent condition level					Components of learning motivation of upgrading to college students	Desire condition level				
5	4	3	2	1		5	4	3	2	1
1. Knowledge value										
					1. Students believe that knowledge is valuable in itself and are curious about learning it					
					2. Students believe that learning can help them solve problems or improve the quality of life in real life					
					3. Students believe that they can contribute to society by learning					
					4. Students use learning as a means to pursue and realize their personal values					
					5. Students see learning as a lifelong process that is essential for personal growth and adaptation to a changing world					
2. Learning interest										
					6. Students are interested in a particular subject or area of knowledge					
					7. Students are interested in the exploration and discovery of new knowledge, new skills and new concepts					

4.Achievement attribution									
					16.Students attribute the learning success or failure to individual effort				
					17.Students attribute the success or failure in learning to an individual's inherent ability or intelligence				
					18.Students attribute the success or failure to the difficulty of the task itself				
					19.Students attribute the learning success or failure to chance or luck				
					20.Students attribute learning success or failure to supportive and disruptive factors in the learning environment				
5.External influence									
					21.Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning				
					22.Students believe that cooperative learning, competition and social				

				interaction among classmates can affect learning interest and engagement					
				23.Students believe that the values, expectations and learning atmosphere of the school affect learning					
				24.Students believe that the value society places on education and the values it places on a particular subject affect learning motivation					
				25.Students believe that the expectations, support and availability of learning resources provided by the family have an important impact on learning					



Research Proposal

An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University

Instructions

1. The purpose of this questionnaire is to solicit the opinions of education administrators and school administrators on the best practices for improving the learning motivation of upgrading to college students.

2. The information gathered from this questionnaire will be used to develop an approach for developing learning motivation of upgrading to college students in Baise University.

3. This questionnaire is divided into 2 parts as follows:

Part 1: General information of the respondents.

Part 2: Questionnaire items.

The researcher hopes to receive your kindness and thanks you in advance for this opportunity.

Best regards,

Lijuan Yang

Educational Administration and Development's student

Maharakham University

Part 1: General information of the respondents.

Name of the respondent: Position:

Location of the interview:

Date of the interview:

Interviewer:

Part 2: Questionnaire items.

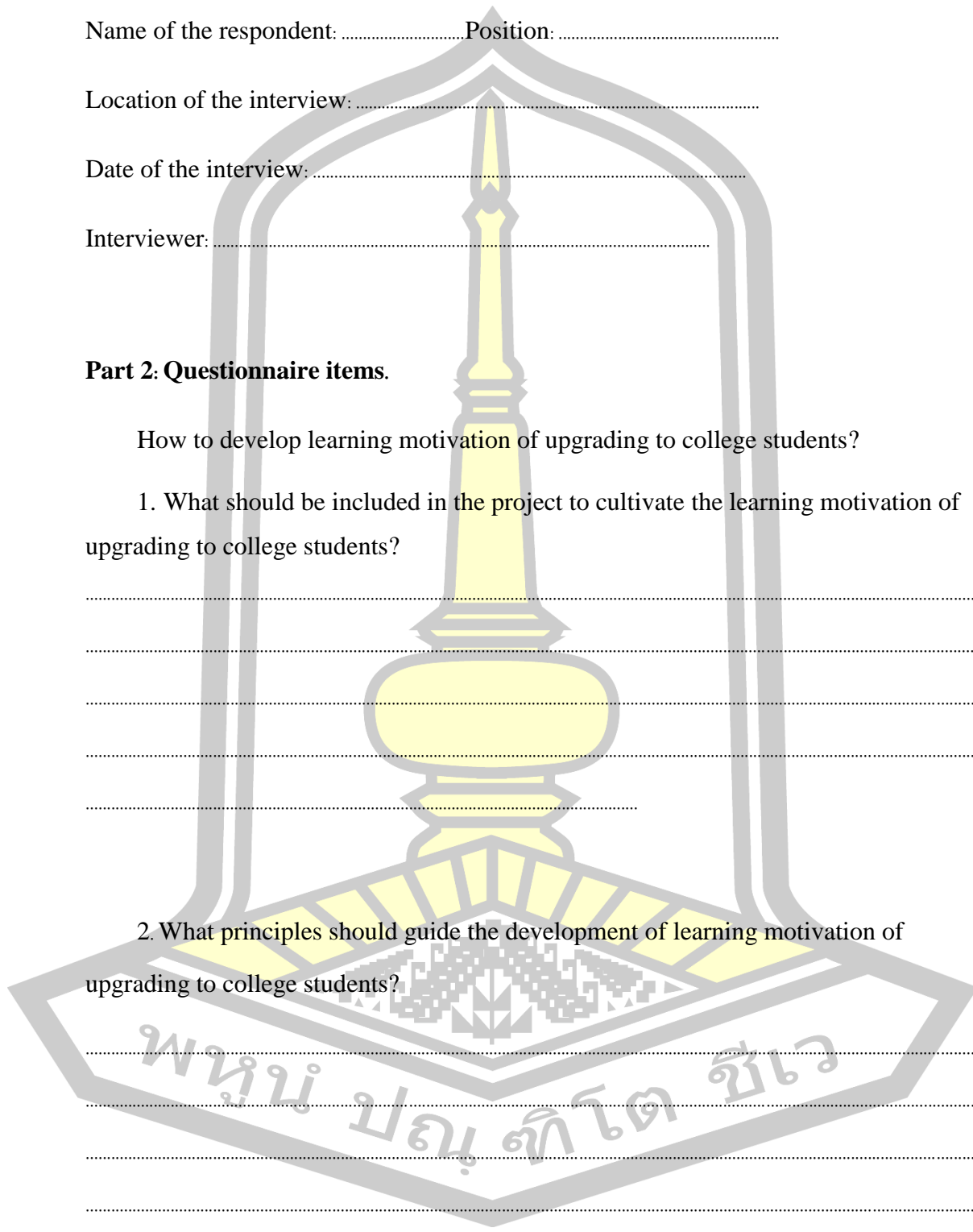
How to develop learning motivation of upgrading to college students?

1. What should be included in the project to cultivate the learning motivation of upgrading to college students?

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2. What principles should guide the development of learning motivation of upgrading to college students?

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3. How to enhance learning motivation of upgrading to college students, and what time frame should be used?

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4. How to enhance the Knowledge value of upgrading to college students? What time frame should be used?

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5. How to enhance the Learning interest of upgrading to college students? What time frame should be used?

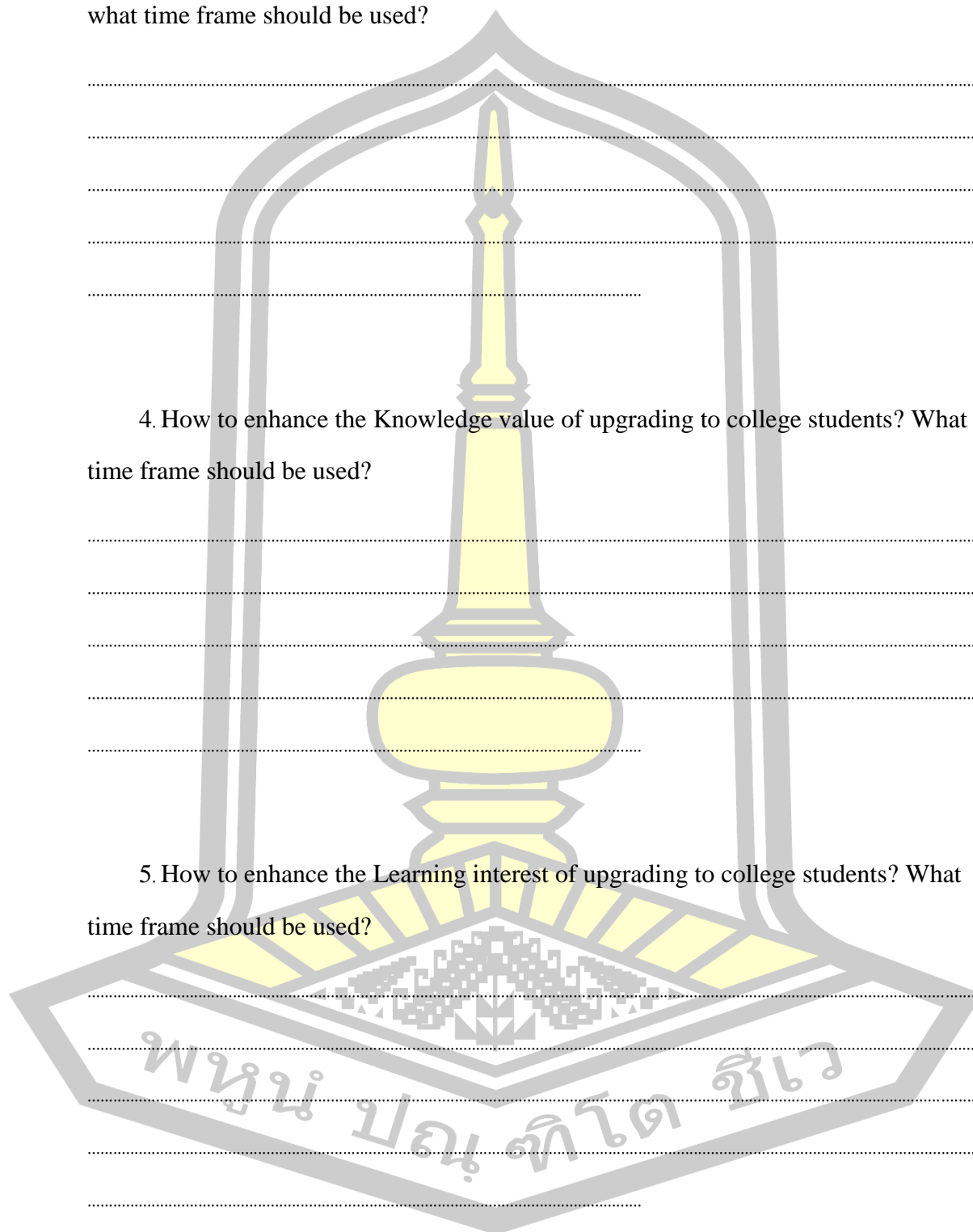
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6. How to enhance the Learning ability of upgrading to college students? What time frame should be used?

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7. How to enhance the Achievement attribution of upgrading to college students? What time frame should be used?

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8. How to enhance the External influence of upgrading to college students? What time frame should be used?



9. How to measure and evaluate the approach of developing learning motivation of upgrading to college students in Baise University?

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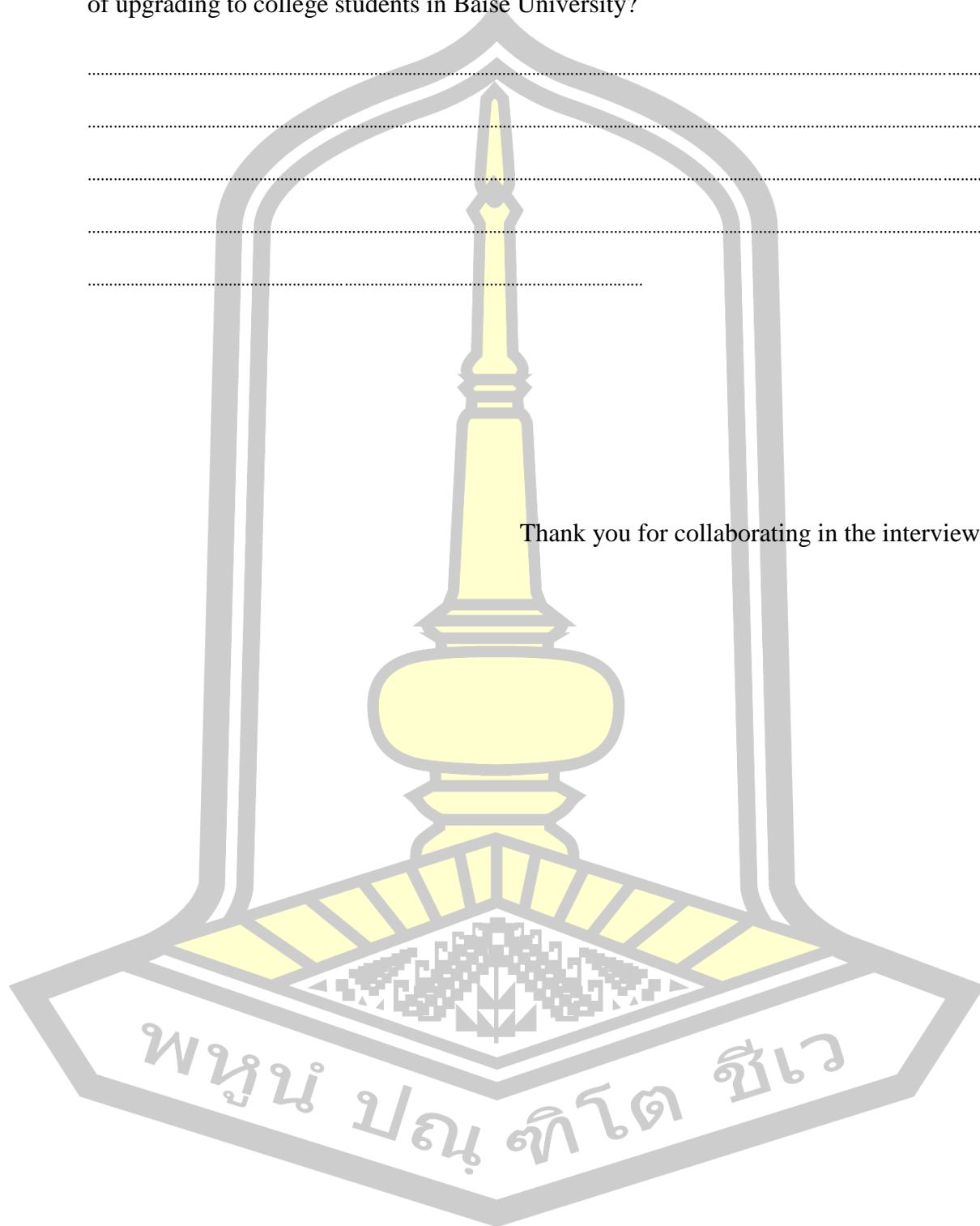
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Thank you for collaborating in the interview.



**Assessment form of learning motivation of upgrading to college students
developing approach in Baise University**

Assessment form of learning motivation of upgrading to college students in Baise University, this is an assessment tool. The aim is to develop the learning motivation of upgrading to college students in Baise University. This evaluation form is designed to assess the suitability and feasibility of the developed approach. This evaluation form is divided into the following 2 parts:

Part 1: General Information of Qualified Personnel

Part 2: Evaluation of the suitability and feasibility evaluation of upgrading to college students' learning motivation developing approach in in Baise University

Instructions: Please read each statement carefully, then tick the box (✓) as to whether you think the program is suitable for developing learning motivation of upgrading to college students in Baise University, using the following evaluation criteria, divided into the following 5 levels:

4.51 - 5.00 refers to suitability and feasibility as very high

3.51 - 4.50 refers to suitability and feasibility as high

2.51 - 3.50 refers to suitability and feasibility as a medium

1.51 - 2.50 refers to suitability and feasibility as low

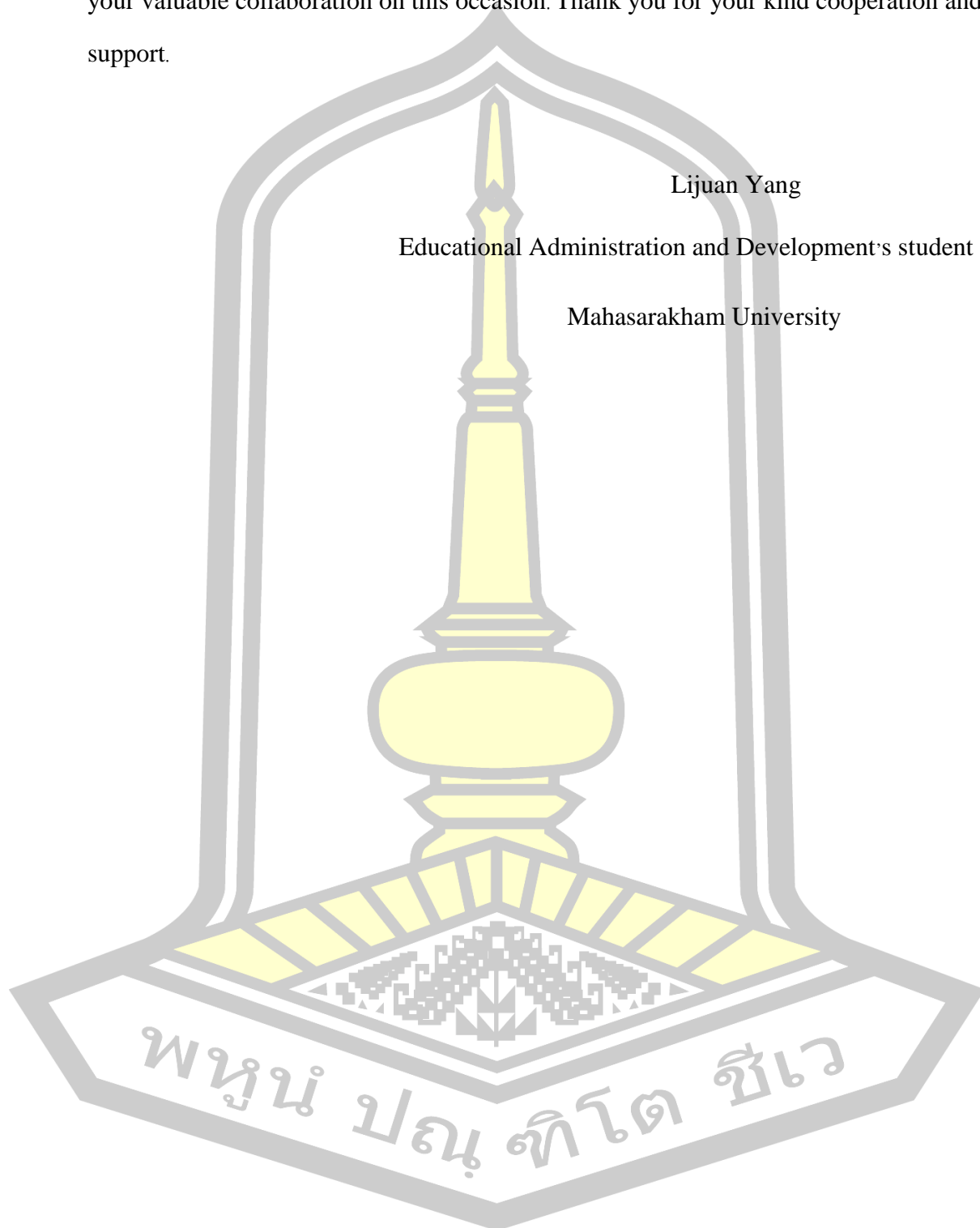
1.00 - 1.50 refers to suitability and feasibility as very low

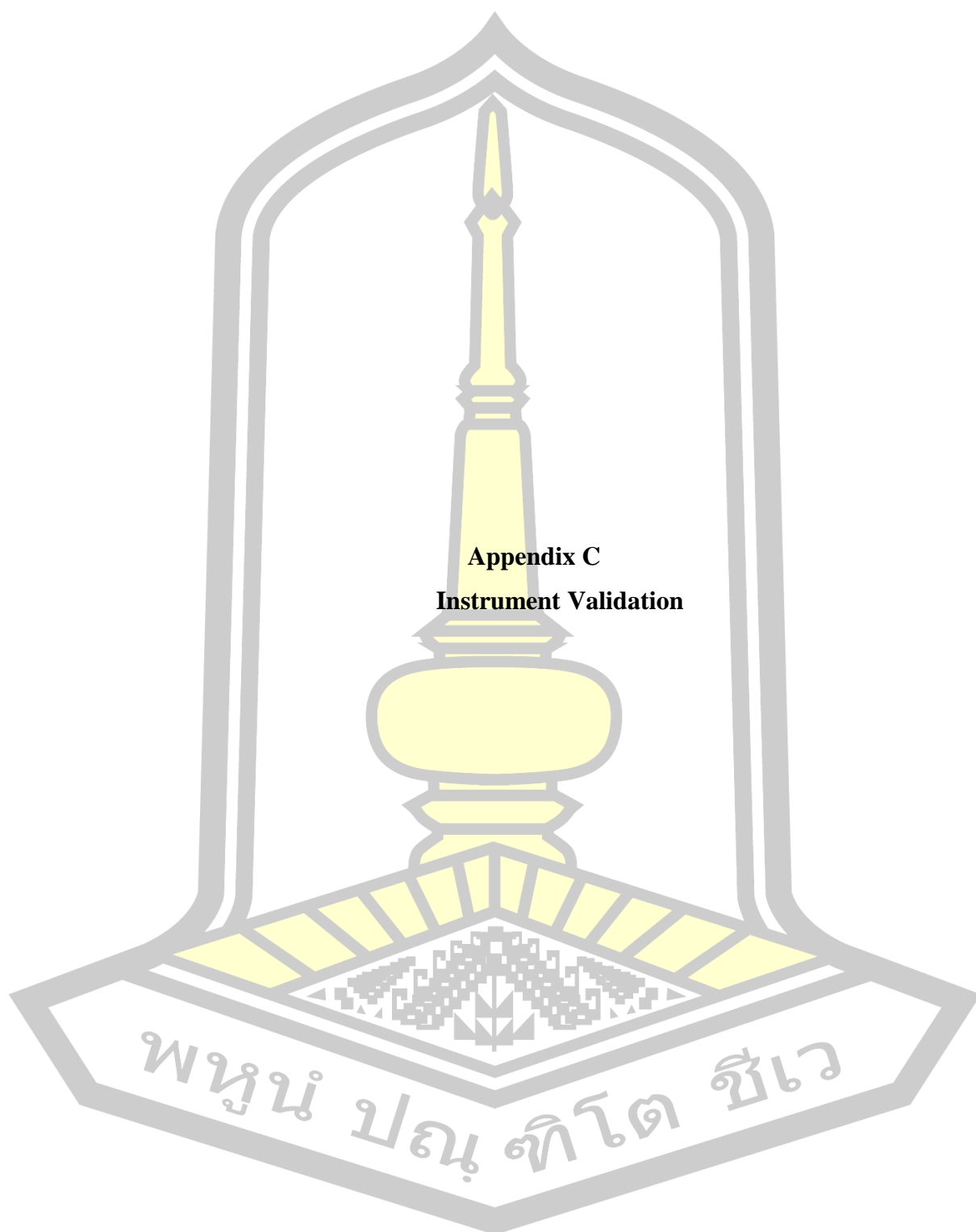
The researcher hopes to receive your cooperation and would greatly appreciate your valuable collaboration on this occasion. Thank you for your kind cooperation and support.

Lijuan Yang

Educational Administration and Development's student

Maharakham University





Appendix C
Instrument Validation

**Level of Agreement of Indicators for Developing Learning Motivation of
Upgrading to College Students in Baise University**

Table 1: Results of Level of Agreement of Indicators for Developing Learning Motivation of Upgrading to College Students in Baise University.

Items	Expert Opinion Levels					\bar{X}	S.D.	Level of Suitability
	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5			
1	5	5	5	5	5	5.00	.00	very high
2	5	5	5	5	5	5.00	.00	very high
3	5	5	5	5	5	5.00	.00	very high
4	4	5	5	5	5	4.80	.45	very high
5	5	5	5	5	5	5.00	.00	very high
6	4	5	5	5	5	4.80	.45	very high
7	5	5	5	5	5	5.00	.00	very high
8	5	5	4	5	5	4.80	.45	very high
9	4	5	5	5	4	4.60	.55	very high
10	4	5	5	5	5	4.80	.45	very high
11	5	5	5	5	4	4.80	.45	very high
12	5	5	5	5	5	5.00	.00	very high
13	5	5	5	5	5	5.00	.00	very high
14	4	5	5	5	5	4.80	.45	very high
15	5	5	5	5	5	5.00	.00	very high

16	5	5	5	5	5	5.00	.00	very high
17	5	5	5	4	5	4.80	.45	very high
18	5	5	5	5	5	5.00	.00	very high
19	5	5	5	5	5	5.00	.00	very high
20	5	4	4	4	4	4.20	.45	very high
21	5	5	5	5	4	4.80	.45	very high
22	5	4	4	4	5	4.40	.55	very high
23	4	5	5	5	5	4.80	.45	very high
24	5	5	5	5	5	5.00	.00	very high
25	5	5	5	4	5	4.80	.45	very high

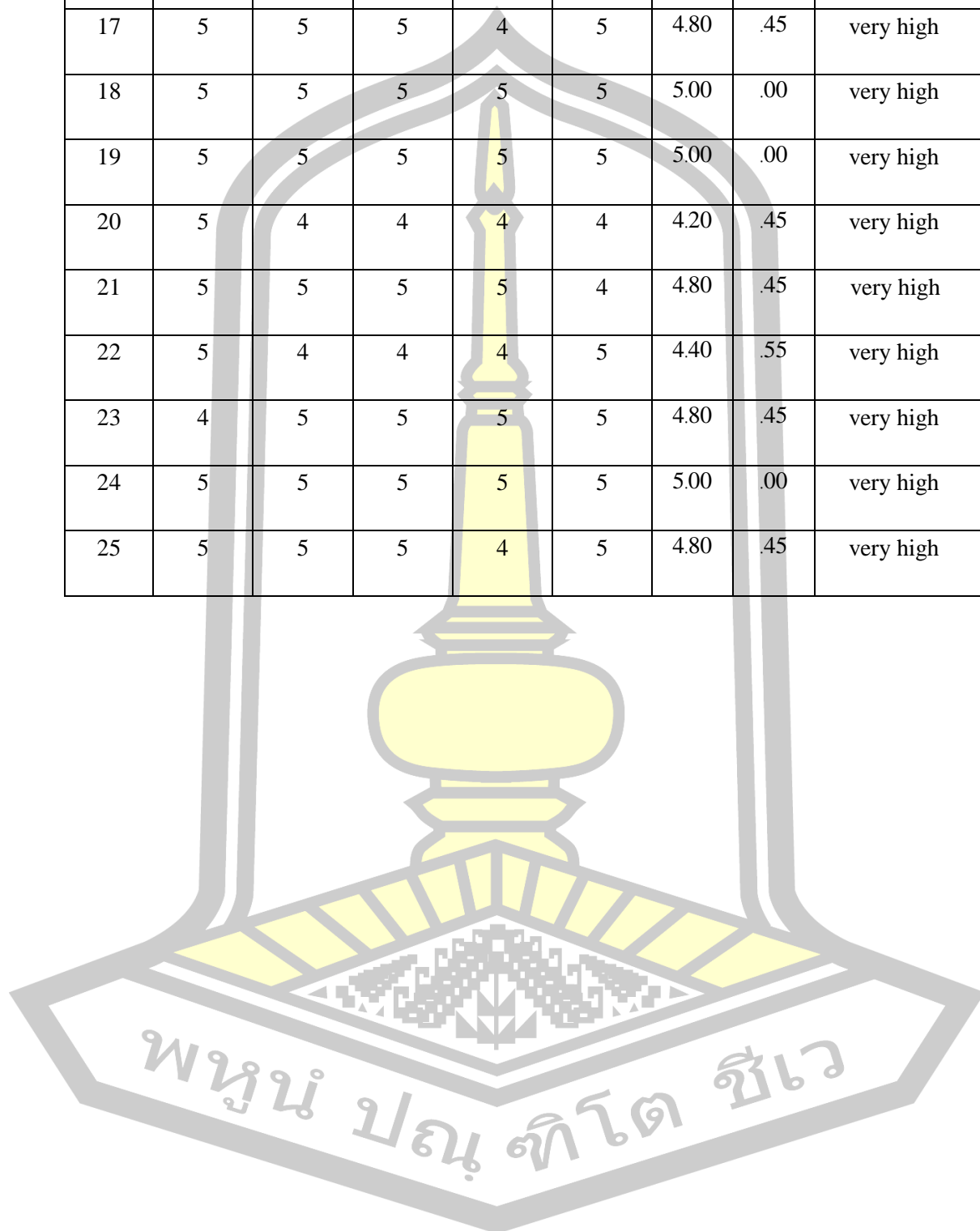


Table 2: Reliability analysis of the current situation and feasibility of the developing approach for learning motivation of upgrading to college students in Baise University.

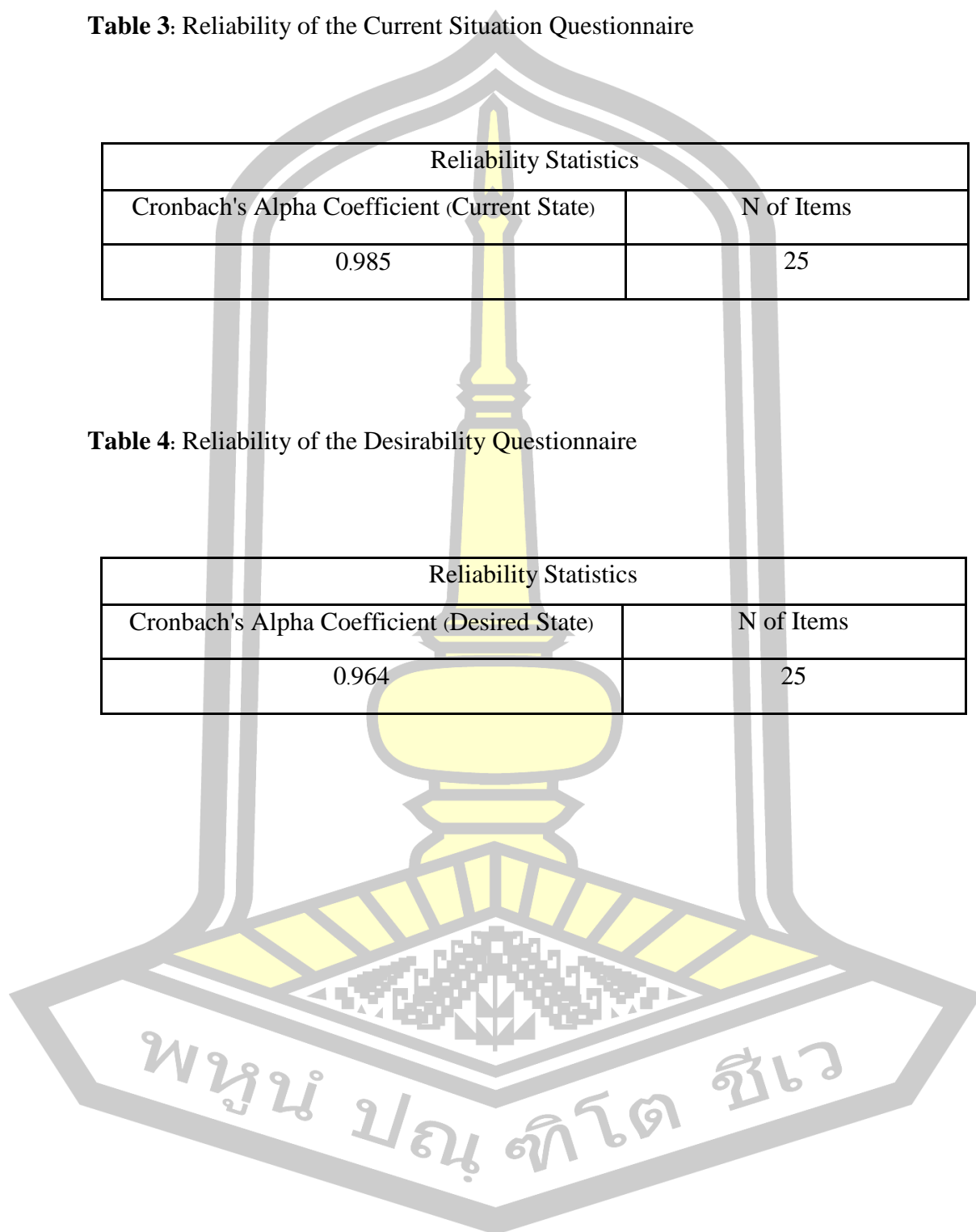
Items	Correlation coefficient (r_{xy})		Items	Correlation coefficient (r_{xy})	
	Existent condition	Desire condition		Existent condition	Desire condition
1	0.985	0.964	14	0.984	0.966
2	0.986	0.966	15	0.985	0.965
3	0.985	0.966	16	0.986	0.965
4	0.985	0.965	17	0.984	0.965
5	0.984	0.965	18	0.985	0.965
6	0.985	0.964	19	0.986	0.964
7	0.984	0.967	20	0.985	0.965
8	0.986	0.965	21	0.985	0.965
9	0.985	0.966	22	0.986	0.964
10	0.986	0.965	23	0.986	0.964
11	0.984	0.963	24	0.985	0.965
12	0.985	0.964	25	0.987	0.965
13	0.985	0.965			

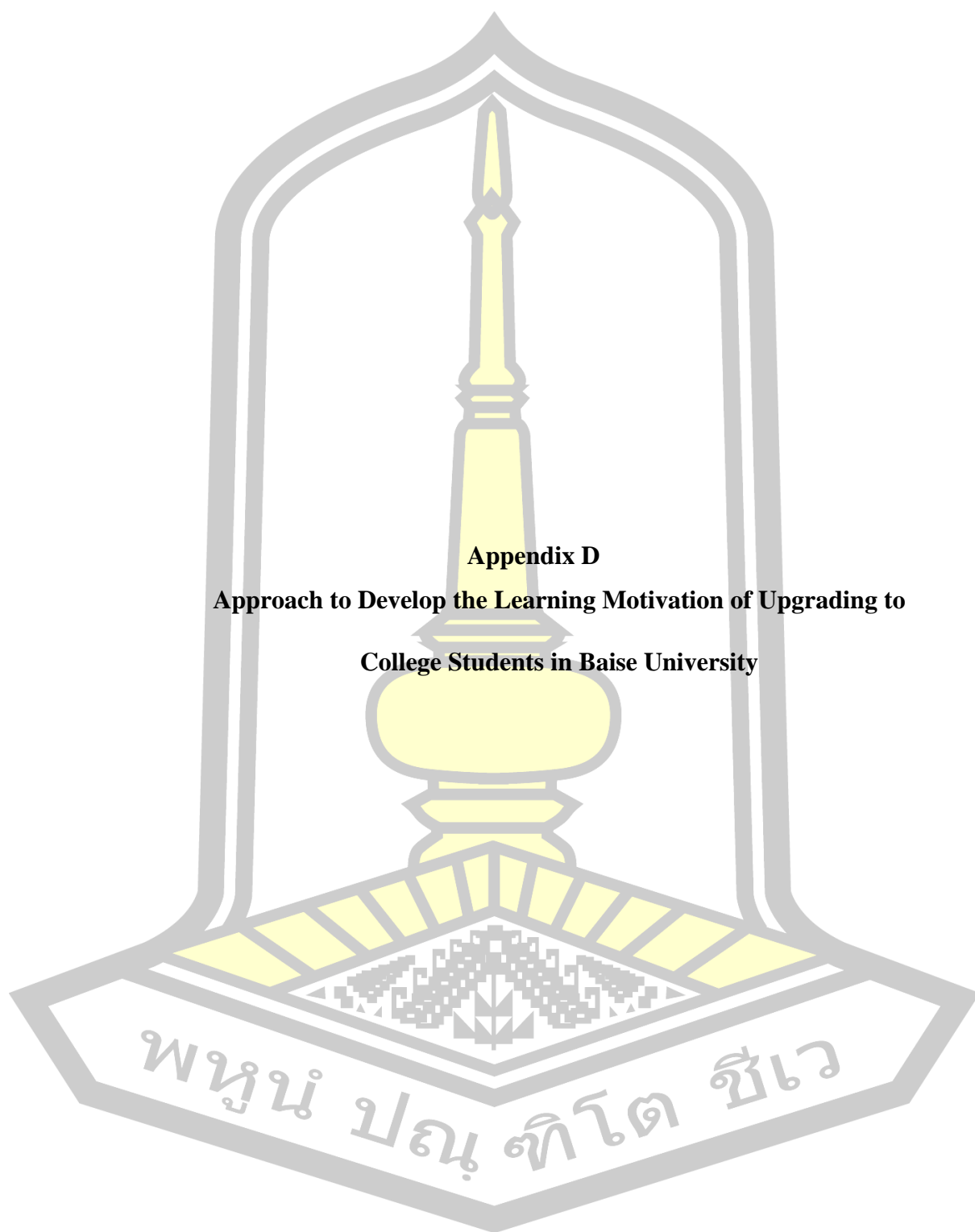
Table 3: Reliability of the Current Situation Questionnaire

Reliability Statistics	
Cronbach's Alpha Coefficient (Current State)	N of Items
0.985	25

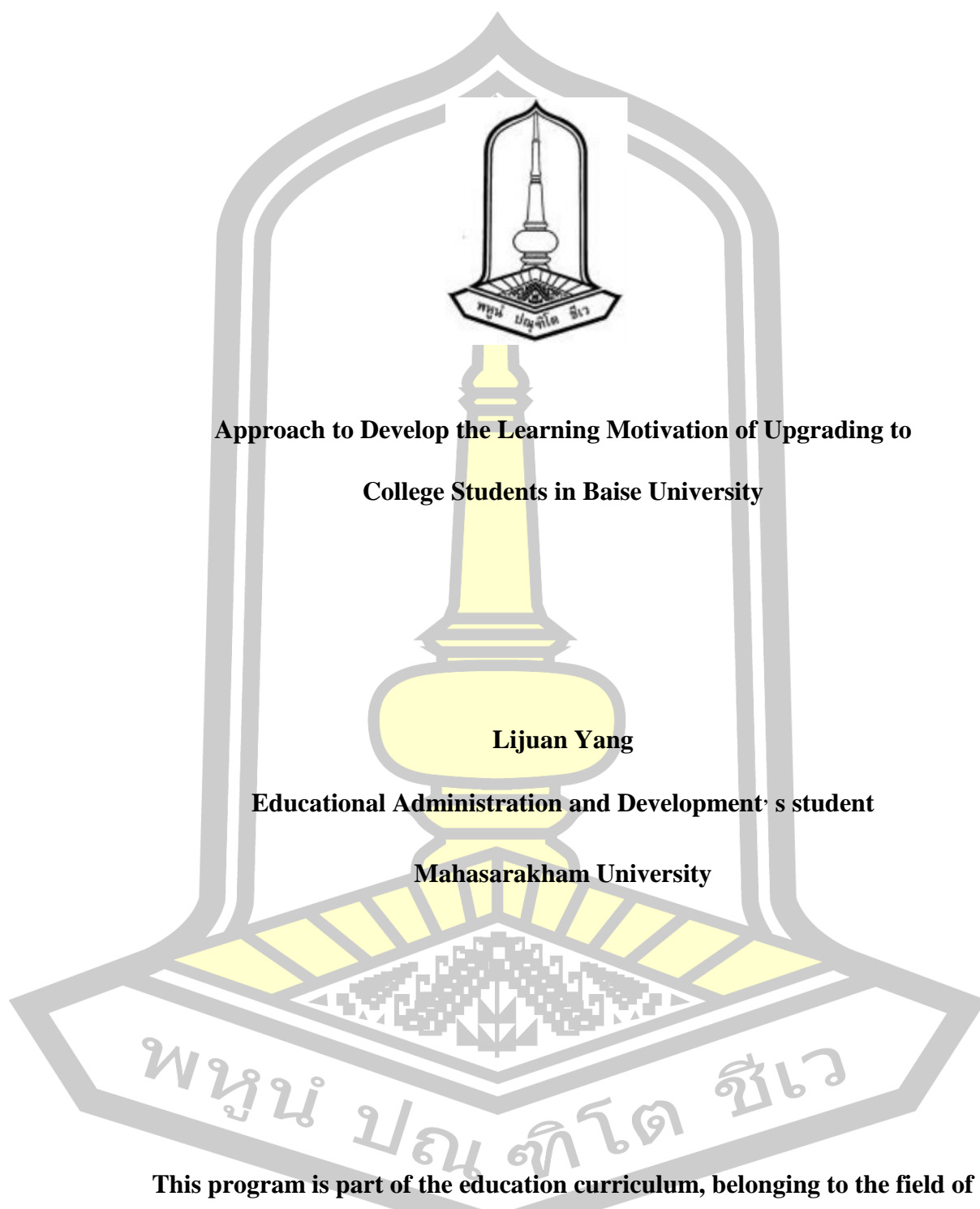
Table 4: Reliability of the Desirability Questionnaire

Reliability Statistics	
Cronbach's Alpha Coefficient (Desired State)	N of Items
0.964	25





Appendix D
Approach to Develop the Learning Motivation of Upgrading to
College Students in Baise University



**Approach to Develop the Learning Motivation of Upgrading to
College Students in Baise University**

Lijuan Yang

Educational Administration and Development's student

Mahasarakham University

This program is part of the education curriculum, belonging to the field of Educational Management and Development, covering the content of the Doctor of Education program. It is offered by the Department of Educational Management, Faculty of Education, Mahasarakham University

PREFACE

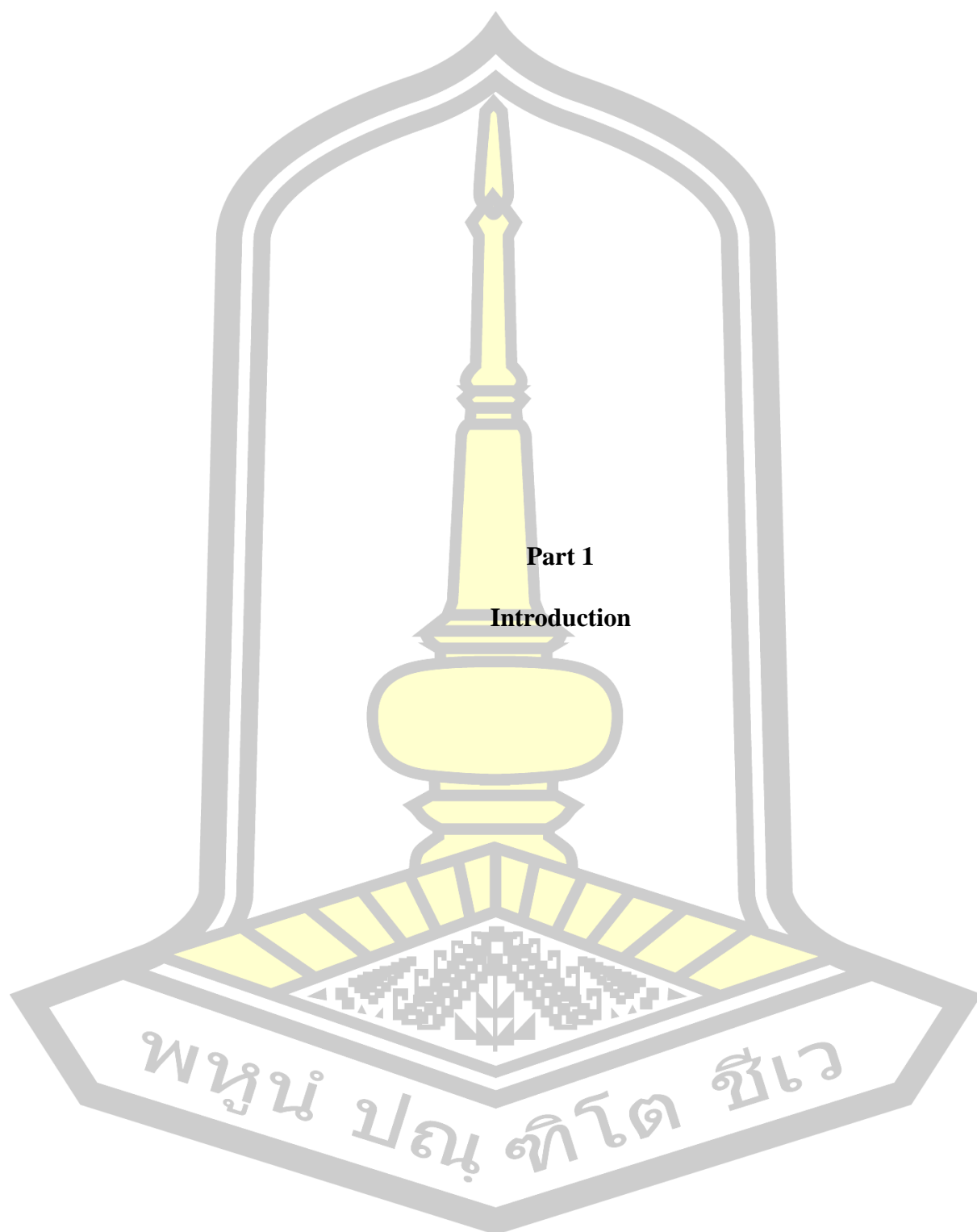
This approach is designed to develop the learning motivation of upgrading to college students in Baise University. Entitled "An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University," it aims to serve as a guide for strengthening the development of upgrading to college students' learning motivation. The contents of this book are divided into two main parts: the part 1 is the introduction, which includes principles, objectives, content, development principles, as well as assessment and evaluation methods. The part 2 is the approach to develop the learning motivation of upgrading to college students in Baise University, which will elaborate on each module, including Module 1: Knowledge value, Module 2: Learning interest, Module 3: Learning ability, Module 4: Achievement attribution, and Module 5: External influence. This includes a table for the development of upgrading to college students' learning ability and an evaluation table for development (before and after development).

This approach aims to develop the learning motivation of upgrading to college students in Baise University. Interested individuals from schools or educational institutions can use it as a guideline for developing upgrading to college students. This will help them develop their learning motivation, thus positively impacting the quality of education.

Lijuan Yang

Educational Administration and Development's student

Maharakham University



1. Principle

Enhancing the learning motivation of students upgrading from junior colleges to universities is crucial for their academic achievement and personal development. These students are at a critical learning stage, facing the challenge of transitioning from vocational education to undergraduate education. In this process, a strong learning motivation is key to their success. Firstly, a high level of learning motivation can help students overcome difficulties and challenges encountered during the learning process, maintaining a continuous and effective learning attitude. Secondly, a positive learning motivation can inspire students to explore knowledge and be passionate about learning, promoting in-depth study and research in their fields of specialization. Moreover, good learning motivation also aids in developing self-directed learning and time management skills, laying a solid foundation for their future career and lifelong learning. Therefore educators and schools should prioritize enhancing the learning motivation of students upgrading from junior colleges to universities. This can be achieved by creating a positive learning environment, providing personalized learning support, and encouraging students to set achievable learning goals, thereby stimulating their intrinsic motivation and helping them achieve their academic and personal development goals. This is not only beneficial for the students themselves but also crucial for improving the quality of education and promoting societal progress.

2. Objective

2.1 Enhance understanding of the principles of developing the learning motivation of upgrading to college students in Baise University.

2.2 Under the supervision of relevant educational administrators, developing the learning motivation of upgrading to college students in Baise University. This includes 5 areas: 1) Knowledge value, 2) Learning interest, 3) Learning ability, 4) Achievement attribution, 5) External influence.

2.3 To ensure that the upgrading to college students receiving training develop their learning motivation and can apply the knowledge and experience gained in learning and work, thus producing a positive impact on the enhancement of educational quality.

3. Content

To enhance the learning motivation of upgrading to college students in Baise University, the approach comprises 5 Contents, each outlining specific content domains.

Topic 1: Knowledge value: Content 1

This content focuses on developing upgrading to college students' awareness of Knowledge value. It includes Intrinsic value, Practical value, Social contribution value, Self-actualization value and Lifelong learning value. This is achieved through Experience, Present Worth, Future Usefulness, Need Matching, Modeling and Choice.

Topic 2: Learning interest: Content 2

This content focuses on developing upgrading to college students' Learning interest. It includes Subject interest, Exploration and discovery interest, Interest in practical application, Interest in cooperative learning and Interest in self-directed learning. This is achieved through Incongruity and Conflict, Concreteness, Variability, Humor, Inquiry and Participation.

Topic 3: Learning ability: Content 3

This content focuses on developing upgrading to college students' Learning ability. It includes Self-efficacy, Time management ability, Learning strategy use ability, Adaptive learning ability and Self-monitor and reflect ability. This is achieved through Learning Requirements, Difficulty, Expectations, Attributions and Self-Confidence.

Topic 4: Achievement attribution: Content 4

This content focuses on developing upgrading to college students' Achievement attribution. It includes Effort attribution, Ability attribution, Task difficulty attribution, Luck attribution and Situation attribution. This is achieved through Natural Consequences, Unexpected Rewards, Positive Outcomes, Negative Influences and Scheduling.

Topic 5: External influence: Content 5

This content focuses on developing upgrading to college students to keep the external influence in perspective. It includes Teacher's support, Classmate interaction, School culture, Societal expectations and values and Family environment . This is achieved through Learning Requirements, Expectations, Need Matching, Present Worth, Future Usefulness and Variability.

4.Development process

4.1 Development Principle

From studying and analyzing academic literature and documents, the concept of learning motivation has been formulated according to the ARCS Motivation Model. The ARCS Motivation Model, proposed by John M. Keller, is a crucial framework for understanding and enhancing student learning motivation. This theory emphasizes four key elements: Attention, Relevance, Confidence, and Satisfaction, considering these aspects as the core to stimulate and maintain students' motivation to learn. The importance of the ARCS motivation theory in educational practice is manifested in several aspects:

1) Attention: by capturing students' attention, teachers can use various strategies such as storytelling and inquiry-based learning to make the content more engaging and interesting, thereby sparking students' curiosity and interest in learning.

2) Relevance: emphasizing the relevance of the learning content to students' life experiences and future goals can help students understand the practical significance of

their studies, increasing their motivation to engage.

3) Confidence: by building students' confidence, teachers can set reasonable challenges and provide positive feedback, helping students experience success and thus enhancing their confidence to face learning challenges.

4) Satisfaction: the realization of satisfaction, by recognizing students' efforts and achievements, allows students to feel accomplished and valued throughout the learning process, thereby enhancing their intrinsic satisfaction and motivation to continue learning.

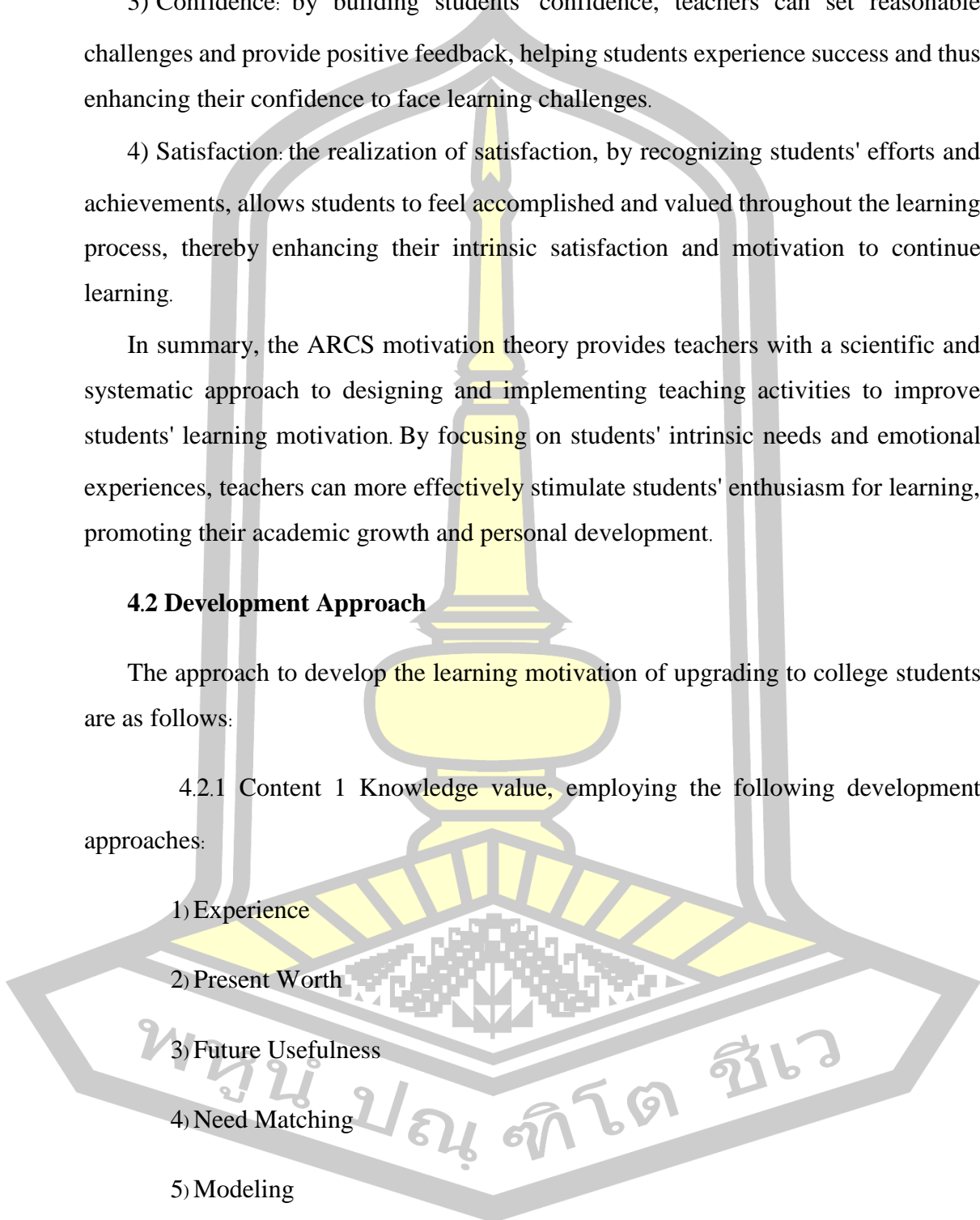
In summary, the ARCS motivation theory provides teachers with a scientific and systematic approach to designing and implementing teaching activities to improve students' learning motivation. By focusing on students' intrinsic needs and emotional experiences, teachers can more effectively stimulate students' enthusiasm for learning, promoting their academic growth and personal development.

4.2 Development Approach

The approach to develop the learning motivation of upgrading to college students are as follows:

4.2.1 Content 1 Knowledge value, employing the following development approaches:

- 1) Experience
- 2) Present Worth
- 3) Future Usefulness
- 4) Need Matching
- 5) Modeling
- 6) Choice



4.2.2 Content 2 Learning interest, employing the following development approaches:

1) Incongruity, Conflict

2) Concreteness

3) Variability

4) Humor

5) Inquiry

6) Participation

4.2.3 Content 3 Learning ability, employing the following development approaches:

1) Learning Requirements

2) Difficulty

3) Expectations

4) Attributions

5) Self-Confidence

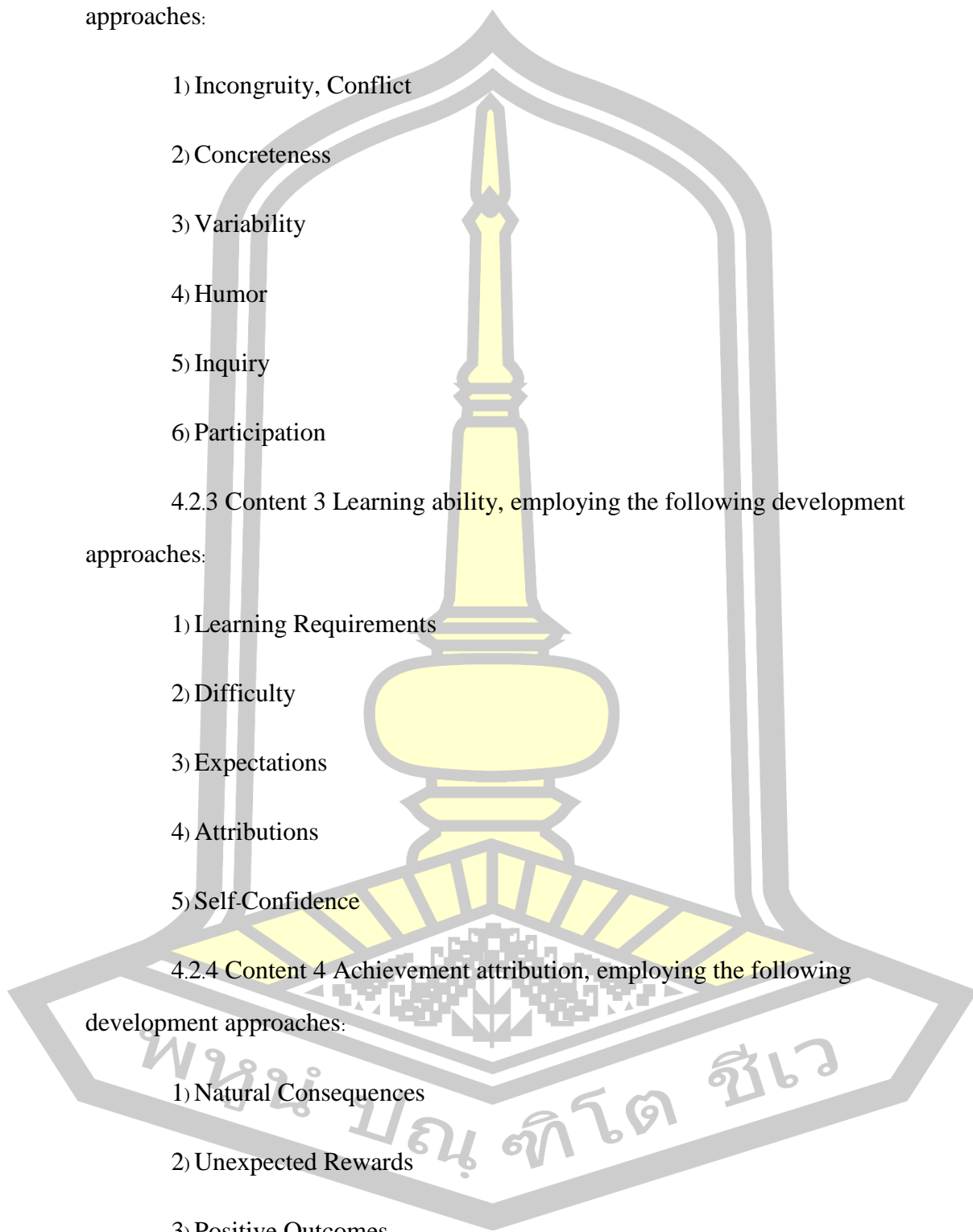
4.2.4 Content 4 Achievement attribution, employing the following development approaches:

1) Natural Consequences

2) Unexpected Rewards

3) Positive Outcomes

4) Negative Influences



5) Scheduling

4.2.5 Content 5 External influence, employing the following development approaches:

- 1) Learning Requirements
- 2) Expectations
- 3) Need Matching
- 4) Present Worth
- 5) Future Usefulness
- 6) Variability

5. Measurement and Evaluation

5.1 Pre-development Evaluation

Analyzing the constituent elements of upgrading to college students' learning motivation via a comprehensive literature review and conducting the existing upgrading to college students' learning motivation prior to further development.

5.2 Evaluation during development

During the development phase, the check activities encompass group activities, learning exchange assessments, and satisfaction assessments of the development activities, utilizing satisfaction evaluation forms.

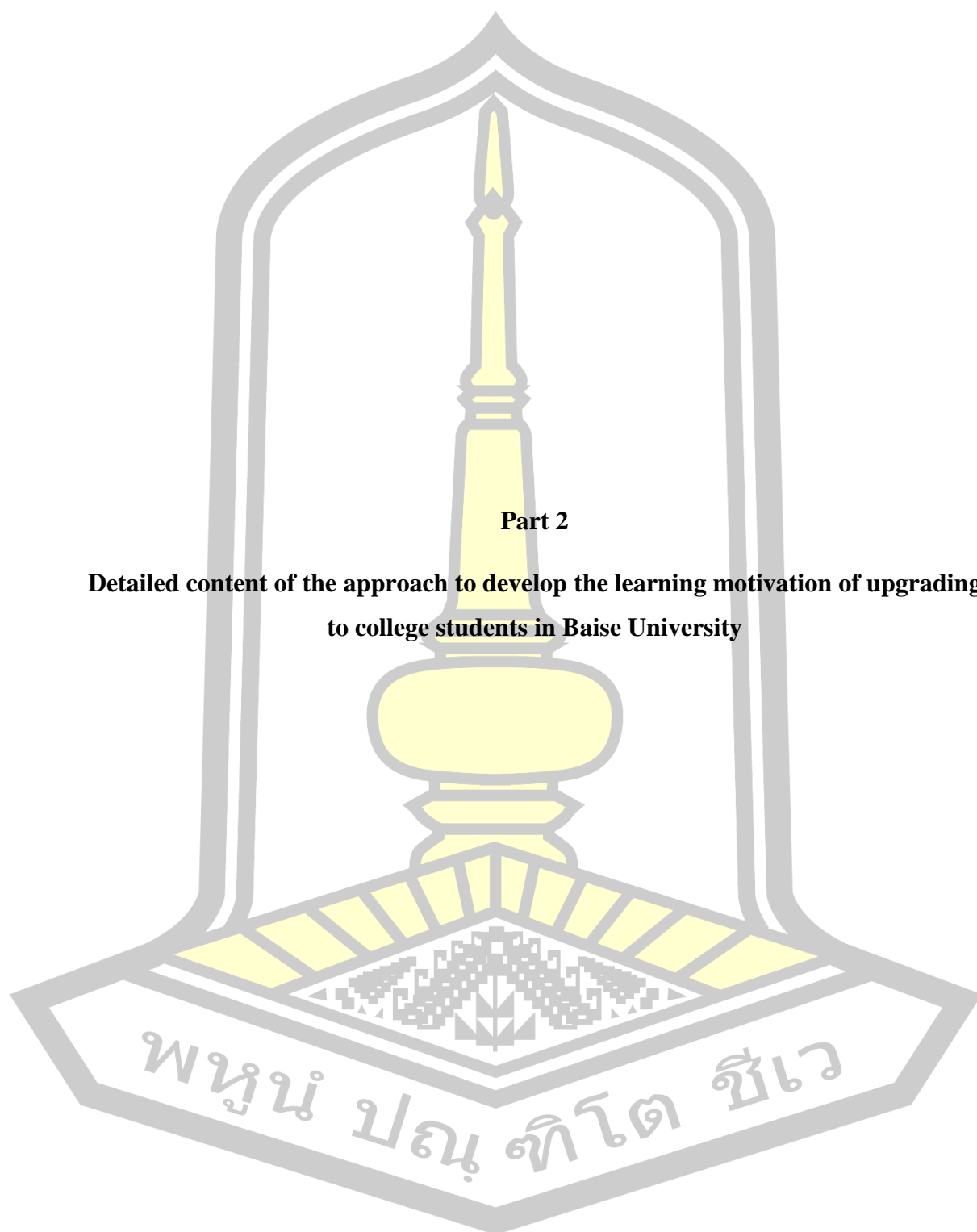
5.3 Post-development Evaluation

Following the development phase, it is imperative to check the present status and anticipated standards of upgrading to college students' learning motivation in Baise University:

1) Effect evaluation: Evaluating the impact of the approach on upgrading to college students' learning motivation through tests, questionnaires, interviews and other means, and analyze data to determine the effectiveness of the approach.

2) Problem identification: Identify the problems and deficiencies in the implementation of the approach, such as low student participation and ineffective incentive measures.





Part 2

**Detailed content of the approach to develop the learning motivation of upgrading
to college students in Baise University**

Content 1

Knowledge value

1. Principle

Knowledge value refers to the views, evaluations and beliefs held by individuals or societies about knowledge itself. Understanding the value of knowledge is extremely important for students because it helps them to realize that learning is not just about taking exams or completing school, but is an important means to promote personal growth, improve problem-solving skills, and adapt to social changes. When students realize the application and value of what they have learned in real life, their motivation to learn is significantly improved. This intrinsic drive motivates students to actively explore and study deeply, not only for good grades, but out of genuine interest and pursuit of knowledge itself and its applied value. Therefore, educators should help students deeply understand and appreciate the value of knowledge through various teaching activities and practical experience, so as to stimulate their learning enthusiasm and continuous learning motivation.

2. Objective

The aim of enhancing students' understanding of the value of knowledge is to help students fully understand the multi-dimensional value of knowledge, so as to stimulate their learning interest, enhance their learning motivation, and promote their all-round development. It mainly includes the intrinsic value of knowledge, practical value, social contribution value, self-realization value, lifelong learning value and so on. In short, enhancing students' awareness of the multi-dimensional value of knowledge can not only promote their learning motivation and learning effectiveness, but also help them better understand the far-reaching significance of learning and contribute to the development of individuals and society.

3. Content

3.1 Learn the content, definition and importance of Knowledge value

3.2 Understand the cognitive stage of knowledge value

3.3 Components of Knowledge value

4. Development process

Development process of Knowledge value for upgrading to college students based on ARCS Motivation Model in Baise University:

4.1 Development Approach 1: Experience

1) Through the association with students' existing experience, it helps them understand the meaning and value of new knowledge and enhances the subjective feeling of learning.

2) Combine students' personal experiences to show how knowledge solves practical problems and improves its application.

3) Through community service or projects, students experience how knowledge can have a positive impact on society.

4) Students are encouraged to explore their potential and achieve personal growth through learning.

5) Develop students' ability to combine personal experience with new knowledge and stimulate interest in lifelong learning.

4.2 Development Approach 2: Present Worth

1) Emphasize the importance of learning content to students' current situation, and enhance the sense of urgency and necessity of learning.

2) Demonstrate the direct application of knowledge and skills to students' current life or study and enhance their practical understanding.

3) Examples show how to use the knowledge to serve the society and enhance the sense of social responsibility.

4) Let students realize that they can achieve their personal goals and enhance their self-worth through current learning.

5) Emphasize the importance of current learning for future lifelong learning paths and foster an attitude of continuous learning.

4.3 Development Approach 3: Future Usefulness

1) By understanding students' individual needs and interests, matching learning content to students' intrinsic motivation, and improving the personalization and relevance of learning.

2) Ensure that the learning content meets the current or future practical needs of the student and enhances its usefulness.

3) Identify and match students' needs for social engagement and contribution to achieve this through learning.

4) Enhance the attractiveness of learning by meeting students' needs for achievement and self-improvement.

5) Guide students to identify individual learning needs and cultivate the ability of independent learning and lifelong learning.

4.4 Development Approach 4: Need Matching

1) By understanding students' individual needs and interests, matching learning content to students' intrinsic motivation, and improving the personalization and relevance of learning.

2) Ensure that the learning content meets the current or future practical needs of the student and enhances its usefulness.

3) Identify and match students' needs for social engagement and contribution to achieve this through learning.

4) Enhance the attractiveness of learning by meeting students' needs for achievement and self-improvement.

5) Guide students to identify individual learning needs and cultivate the ability of independent learning and lifelong learning.

4.5 Development Approach 5: Modeling

1) Through example demonstration, demonstrate a passion for knowledge and values, and stimulate the intrinsic motivation of students.

2) Demonstrate the application of knowledge and skills through practical demonstrations to enhance the practicality of learning.

3) Through the role model of social contribution, stimulate students' social responsibility and desire to contribute.

4) Showcasing examples of achieving personal goals and dreams through learning and applying knowledge, motivating students to pursue self-actualization.

5) Highlighting the importance of learning in personal growth and adapting to social change by presenting examples of lifelong learners.

4.6 Development Approach 6: Choice

1) Provide a choice of learning topics or activities for students to choose according to their own interests and needs, enhancing autonomy and intrinsic motivation for learning.

2) Allow students to choose learning content according to their career planning and life needs, improve the practicality of knowledge.

3) Let students choose how to use their knowledge to serve society and enhance their sense of social participation.

4) Promote self-actualization by choosing learning paths that achieve personal interests and goals.

5) Students are encouraged to choose their learning direction according to their personal development needs, and cultivate the habit and ability of lifelong learning.

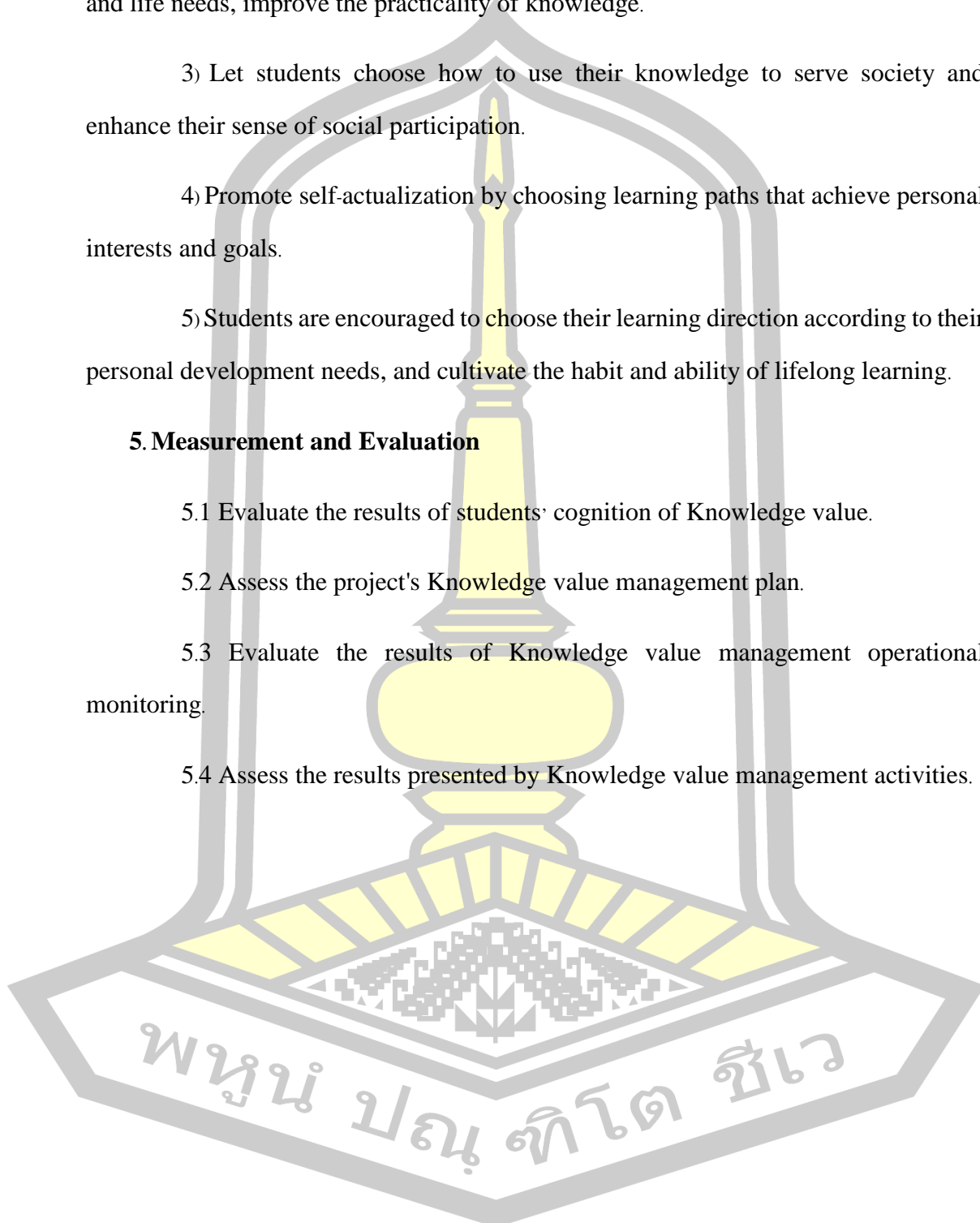
5. Measurement and Evaluation

5.1 Evaluate the results of students' cognition of Knowledge value.

5.2 Assess the project's Knowledge value management plan.

5.3 Evaluate the results of Knowledge value management operational monitoring.

5.4 Assess the results presented by Knowledge value management activities.



Knowledge value

The cognition of the value of knowledge, or knowledge value, refers to the views, evaluations and beliefs held by individuals or societies about knowledge itself. This includes Intrinsic value, Practical value, Social contribution value, Self-actualization value, Lifelong learning value. Knowledge values not only reflect an individual's attitude towards learning and education, but also reflect the overall importance of knowledge and learning in a society or culture.

Component and Indicator

The key features of Knowledge value are described in 5 aspects as follows.

1. Students should be aware of Students believe that knowledge is valuable in itself and are curious about learning it. This value is measured not in terms of the economic benefits, social status, or ability to solve practical problems that knowledge can bring, but in terms of its ability to enrich one's understanding and enhance one's ability to think and view the world. The intrinsic value of knowledge emphasizes the importance of learning and exploration, even if these activities do not necessarily lead directly to tangible results or immediate applications. The intrinsic value of knowledge emphasizes the importance of education and learning, not just for the acquisition of job or vocational skills, but as a way of life in pursuit of deeper understanding and meaning.

2. Students should be aware of Students believe that learning can help them solve problems or improve the quality of life in real life. Practical value pays more attention to how knowledge is used to achieve specific and practical purposes and effects. The practical value of knowledge emphasizes the close link between knowledge and practice, and encourages the translation of theoretical knowledge into practical actions and results to promote personal, social and economic development.

3. Students should be aware of Students believe that they can contribute to society by learning. This value is not only reflected in economic growth and technological innovation, but also in the positive impact on cultural, moral, political and social

structures. The social contribution value of knowledge emphasizes that knowledge is not only the embodiment of individual wealth and ability, but also the cornerstone of the overall progress and well-being of society. Through education, research and knowledge dissemination, societies can achieve more equitable, inclusive and sustainable development.

4. Students should use learning as a means to pursue and realize their personal values. The self-actualization value of knowledge emphasizes that individuals through learning and the application of knowledge can not only achieve external success and achievement, but more importantly achieve internal growth and satisfaction. This value holds that knowledge is not only a means to achieve some external goal, but also the key to realizing one's highest potential and the meaning of life.

5. Students should be aware of learning as a lifelong process that is essential for personal growth and adaptation to a changing world. This value holds that learning should not be limited to the schooling stage, but is an ongoing, lifelong process aimed at continuously improving one's abilities, adapting to social changes, achieving one's personal goals and improving the quality of life. The value of lifelong learning is that it not only focuses on the application of knowledge and skills in the profession, but also emphasizes the importance of personal development, social participation and adaptation to future changes. On this basis, lifelong learning becomes a key way to realize individual potential, promote social progress, and address future challenges.

Knowledge value refers to the views, evaluations and beliefs held by individuals or societies about knowledge itself. These values typically include Intrinsic value, Practical value, Social contribution value, Self-actualization value, and Lifelong learning value. Students learn to correctly understand the value of knowledge, which is conducive to improving the understanding of the importance of learning and further stimulating the motivation of learning.

The purpose of developing students' awareness of knowledge values is to:

1. Develop a lifelong learning attitude
2. Increase your motivation

3. Promote personal development and self-actualization

4. Improve your problem-solving skills

5. Enhance the sense of social responsibility and contribution

9 ways to develop students' awareness of knowledge values:

1. Practical application cases: By introducing practical cases that are closely related to students' lives, they demonstrate how knowledge solves practical problems and enhance students' understanding of the practical value of knowledge.

2. Interdisciplinary learning: Students are encouraged to participate in interdisciplinary projects and activities that allow them to see the connections between different fields of knowledge and understand the importance of integrated knowledge.

3. Discussion and reflection: Regular discussion and reflection activities are organized to encourage students to share their learning experiences and reflect on the meaning of what they have learned for individuals and society.

4. Role-playing and simulation: Through role-playing and simulation activities, students are placed in situations that require the application of specific knowledge to solve problems and experience the application process of knowledge.

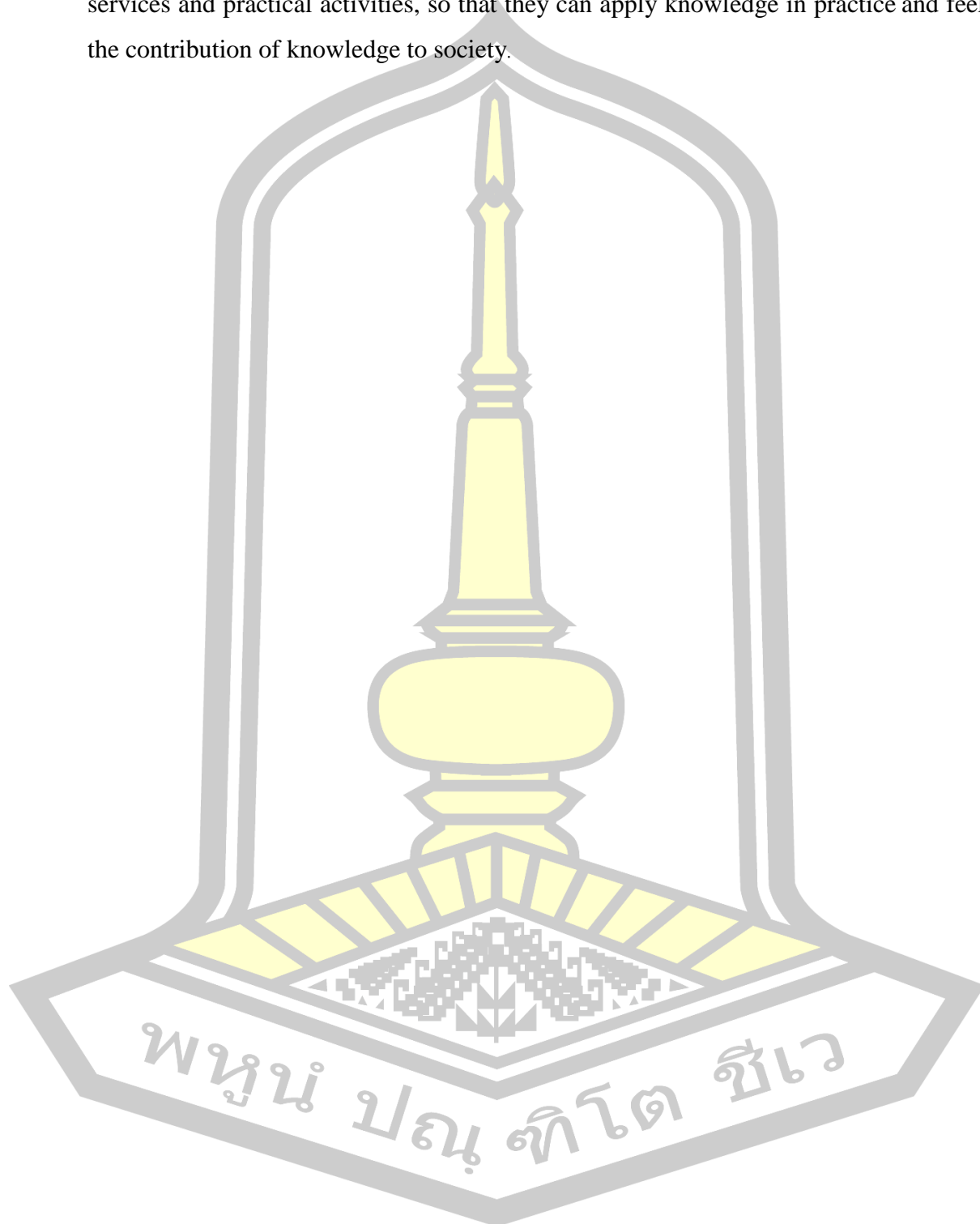
5. Invite industry experts: Regularly invite industry experts into the classroom to share how they apply their knowledge in the workplace and the impact that knowledge has on career development.

6. Project-based learning: The implementation of project-based learning allows students to deeply explore knowledge and experience the whole process from problem discovery to solution in the process of completing specific projects.

7. Encourage independent exploration: Provide rich learning resources and free exploration time, encourage students to study deeply according to their own interests, and discover the joy of knowledge.

8. Feedback and recognition: Giving students positive feedback and recognition, especially when they are able to successfully apply what they have learned to practical problem solving, to enhance their awareness of the value of knowledge.

9. Social services and practical activities: Organize students to participate in social services and practical activities, so that they can apply knowledge in practice and feel the contribution of knowledge to society.



Activity 1: Knowledge values

Instructions: Class as a unit, in the theme class meeting class to do learning experience sharing.

1. Why is knowledge so important for students?

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2. How should students improve their knowledge?

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3. Explain what problems and obstacles may arise and propose solutions.

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Content 2

Learning interest

1. Principle

Learning interest refers to an individual's mental state of curiosity, involvement and enthusiasm for the learning activity itself. Improving students' learning interest plays a vital role in stimulating their learning motivation. Learning interest is not only the inner driving force in the learning process, but also the key factor to promote students' active participation, in-depth exploration and continuous learning. When students are interested in learning content, they are more inclined to invest more time and energy, showing higher learning efficiency and better learning outcomes. In addition, interest in learning can help students maintain a positive attitude in the face of learning challenges and difficulties, and enhance self-confidence and satisfaction through the process of exploration and problem solving. Therefore, cultivating and improving students' interest in learning can not only directly enhance their motivation to learn, but also lay a solid foundation for their long-term academic achievement and personal development.

2. Objective

The purpose of enhancing students' learning interest is to stimulate their intrinsic motivation, so that they can take the initiative and actively participate in the learning process, so as to improve learning efficiency and academic achievement. By developing students' interest in learning, they can help them discover and explore the joy of knowledge, establish lasting learning habits, and lay the foundation for lifelong learning. Learning interests include subject interest, exploration and discovery interest, practical application interest, cooperative learning interest, self-guided learning interest. In short, the purpose of promoting students' learning interest is to stimulate students' intrinsic learning motivation and promote their all-round development and lifelong learning through diversified teaching strategies and activities.

3. Content

3.1 Importance and significance of Learning interest.

3.2 Components of Learning interest.

3.3 Establish a positive classroom atmosphere.

3.4 Effective communication skills

4. Development process

Development process of Learning interest for upgrading to college students based on ARCS Motivation Mode in Baise University:

4.1 Development Approach 1: Incongruity, Conflict

1) By introducing information or ideas that do not match students' expectations, it stimulates their curiosity and prompts them to delve deeper into the subject content.

2) Inconsistent and conflicting situations encourage students to ask questions, explore, and experiment in order to resolve cognitive inconsistencies.

3) The conflict between theory and practice is demonstrated through practical cases to stimulate students' interest in finding solutions.

4.2 Development Approach 2: Concreteness

1) Use concrete examples and cases to bring the subject content to life and help students better understand and engage their interest in the subject.

2) Through specific practical activities, such as experiments or projects, students can experience the application of knowledge and increase their interest in practical application.

3) Students are encouraged to collaborate in specific learning activities and enhance the social dimension of learning through group projects or discussions.

4.3 Development Approach 3: Variability

1) Increase the appeal of the subject by offering a diverse range of learning materials and activities that cater for the learning styles and interests of different students.

2) A variety of learning resources and methods can stimulate students' desire to explore and encourage them to understand subject content from different perspectives.

3) Diverse learning options encourage students to develop learning paths according to their own interests and goals, and enhance the motivation of self-directed learning.

4.4 Development Approach 4: Humor

1) Humor can reduce the pressure of subject learning, make the learning process more relaxed and enjoyable, and thus increase students' interest in subjects.

2) Humor elements can facilitate interaction and communication between students, making the cooperative learning environment more friendly and open.

4.5 Development Approach 5: Inquiry

1) Inquiry-based learning methods encourage students to ask questions, conduct research and experiment, and stimulate their interest in exploring the unknown.

2) Through inquiry activities, students can apply theoretical knowledge to solve practical problems and increase their interest in practical applications.

4.6 Development Approach 6: Participation

1) By encouraging students to participate in discussions, group work, and collaborative projects, their interest and commitment to cooperative learning can be enhanced.

2) Participatory learning environments allow students to choose learning activities according to their own interests and promote the initiative of self-directed learning.

5. Measurement and evaluation

5.1 Evaluate the results of students' level of Learning interest.

5.2 Assess the project's Learning interest management plan.

5.3 Evaluate the results of Learning interest management operational monitoring.

5.4 Assess the results presented by Learning interest management activities.

Learning interest

Direct interest in learning, often referred to as interest in learning, refers to an individual's mental state of curiosity, involvement and enthusiasm for the learning activity itself. This interest is derived from the content itself or the satisfaction of the learning process. Interest in learning makes individuals willing to invest time and energy to explore and learn.

Component and Indicator

The key features of Learning interest are described in 5 aspects as follows:

1. Students are interested in a particular subject or area of knowledge. This interest can be a preference for any subject such as science, mathematics, literature, art, history, and it is an intrinsic motivation for individuals to tend to explore and learn about certain specific topics. Subject interest not only affects individual learning motivation and learning style, but also significantly affects learning effect, academic achievement and future career choice. Subject interest is an important part of individual learning motivation, it not only affects the learning process and effect, but also closely related to personal career development and life satisfaction. Therefore, understanding and

developing subject interests is crucial for both educators and learners.

2. Students are interested in the exploration and discovery of new knowledge, new skills and new concepts. This interest drives people to explore the unknown, seek new information and experiences, and solve problems and innovate. The interest in exploration and discovery is not limited to academic or scientific fields, it can encompass all aspects of life, including art, culture, technology, nature and society. The interest in exploration and discovery is an important part of an individual's intrinsic motivation, which is not only essential for individual learning and growth, but also a key force driving social progress and innovation. Cultivating and sustaining this interest has profound implications for both individuals and society.

3. Students are interested in applying their knowledge to real situations and solving real problems. This interest is not only reflected in the love of learning, but more importantly, reflected in the desire and ability to translate the knowledge into practical action. An individual's interest in practical applications can inspire them to explore how knowledge works in the real world and how personal goals and social contributions can be achieved through practical activities. Interest in practical application is a key factor in education and career development, it promotes the integration of knowledge and practice, helps individuals achieve the transformation from theory to practice, and thus plays an important role in personal growth and social contribution.

4. Students are interested in learning with others, sharing knowledge and solving problems collaboratively. This interest reflects an individual's recognition of the value of social interaction, shared knowledge, mutual support and mutual growth. Cooperative learning not only facilitates the acquisition of knowledge and skills, but also enhances the development of communication, collaboration, critical thinking, and social skills. The interest in cooperative learning is an important part of the educational process, which not only contributes to the acquisition of knowledge and the development of skills, but also facilitates the socialization process of the individual and prepares students to enter the wider social and professional world. By fostering an interest in collaborative learning, students can be provided with a supportive and

supportive learning environment that promotes their overall development.

5. Students are interested in choosing their own learning objectives and resources and learning at their own pace. This interest reflects the individual's ability and desire to acquire knowledge and skills without external coercive guidance, relying on their own motivation, resources, and strategies. The interest in self-directed learning emphasizes the initiative, autonomy and responsibility of learners as key factors in lifelong learning and personal development. An interest in self-directed learning is of great significance for an individual's career development, personal growth and adaptation to social changes. In the knowledge economy and the rapidly changing social environment, developing the interest and ability of self-directed learning has become the key to lifelong learning and success for everyone.

Learning interest refers to an individual's mental state of curiosity, involvement and enthusiasm for the learning activity itself. It includes Subject interest, Exploration and discovery interest, Interest in practical application, Interest in cooperative learning, Interest in self-directed learning.

The aim of developing students' Learning interest is to:

1. Enhance learning motivation
2. Improve learning efficiency
3. Develop problem solving skills
4. Promote innovative thinking
5. Support lifelong learning

9 ways to develop students' Learning interest:

1. Relate to real life: Connect learning content with students' daily life and practical experience, so that students can see the direct correlation between learning and the real world, and increase the practicality and relevance of learning.

2. Use interactive teaching: Through interactive teaching methods such as discussion, cooperative learning, role playing, etc., to increase the level of participation and interaction in the classroom and make the learning process more lively and

interesting.

3. Introduce gamified learning: Use gamified learning tools and elements, such as points, badges, leaderboards, etc., to increase the fun of learning and stimulate students' desire to compete and explore.

4. Set challenging goals: Set moderately challenging learning goals for students to experience a sense of accomplishment through achieving these goals, thereby increasing their interest in learning.

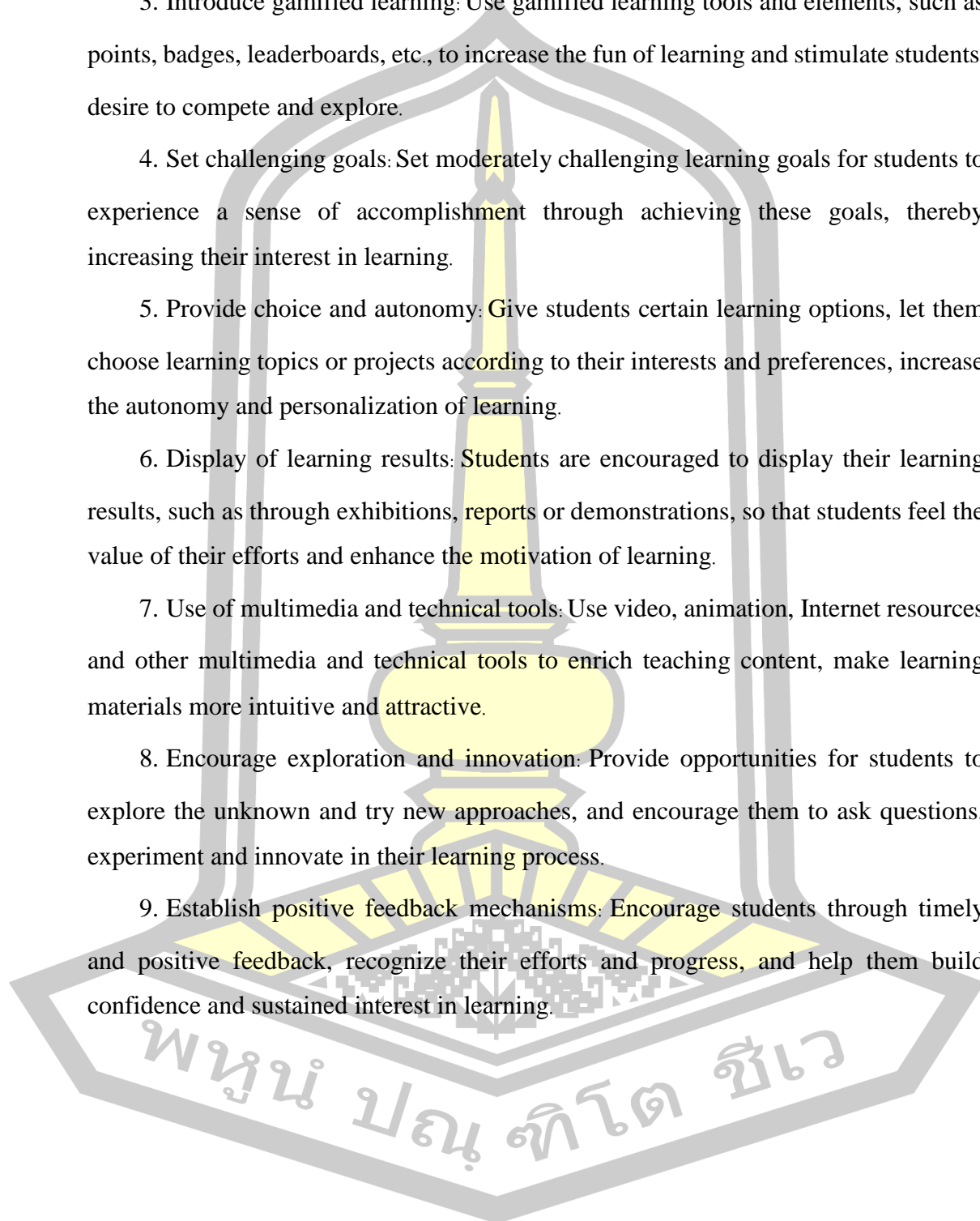
5. Provide choice and autonomy: Give students certain learning options, let them choose learning topics or projects according to their interests and preferences, increase the autonomy and personalization of learning.

6. Display of learning results: Students are encouraged to display their learning results, such as through exhibitions, reports or demonstrations, so that students feel the value of their efforts and enhance the motivation of learning.

7. Use of multimedia and technical tools: Use video, animation, Internet resources and other multimedia and technical tools to enrich teaching content, make learning materials more intuitive and attractive.

8. Encourage exploration and innovation: Provide opportunities for students to explore the unknown and try new approaches, and encourage them to ask questions, experiment and innovate in their learning process.

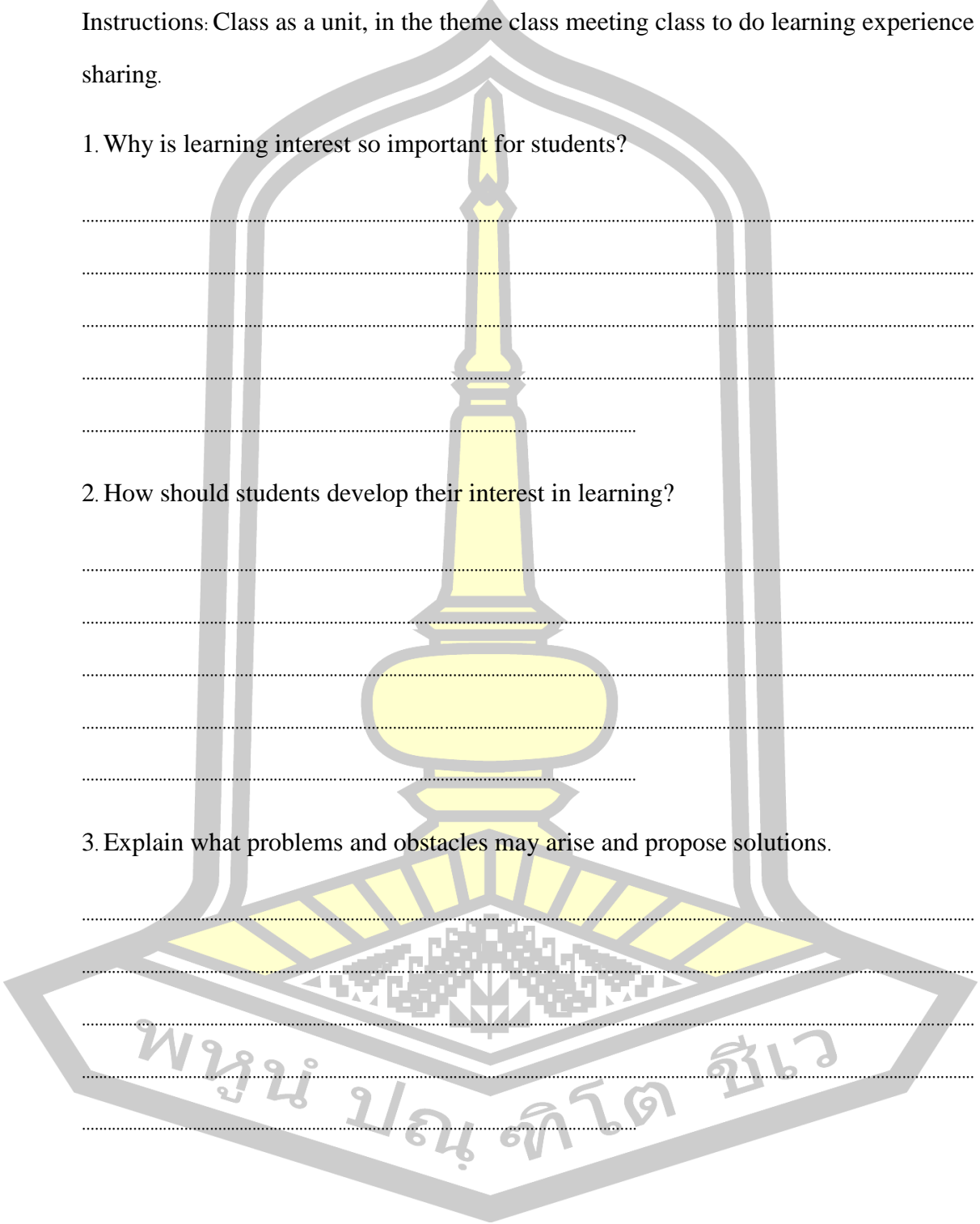
9. Establish positive feedback mechanisms: Encourage students through timely and positive feedback, recognize their efforts and progress, and help them build confidence and sustained interest in learning.



Activity 2: Learning interest

Instructions: Class as a unit, in the theme class meeting class to do learning experience sharing.

1. Why is learning interest so important for students?



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2. How should students develop their interest in learning?

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3. Explain what problems and obstacles may arise and propose solutions.

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Content 3

Learning ability

1. Principle

Learning ability refers to as the sense of learning ability, refers to the belief and assessment of one's ability to complete learning tasks and achieve learning goals. Developing students' learning abilities is critical to their educational achievement and personal growth, as strong learning abilities not only enable students to absorb and process information more effectively, but also help them solve problems autonomously and adapt to new learning challenges. The improvement of learning ability directly affects students' learning motivation, because when students find that they can overcome difficulties in learning by applying effective learning strategies, their self-confidence and sense of accomplishment will be enhanced. This positive feedback loop promotes students' enthusiasm and interest in learning, making them more actively involved in the learning process and exploring more learning opportunities. Therefore, by improving learning ability, students can not only improve their academic performance, but also stimulate their internal learning motivation, laying a solid foundation for lifelong learning and personal development.

2. Objective

Developing students' learning capabilities aims to equip them to learn in a more effective and self-directed manner, thereby enhancing their academic achievement and laying the foundation for lifelong learning. Learning ability includes self-efficacy, time management ability, learning strategy use ability, adaptive learning ability, self-monitoring and reflection ability. Developing students' learning abilities aims to make them more independent, effective and adaptive learners, not only improving their current learning effectiveness, but also laying a solid foundation for their future learning and personal development.

3. Content

3.1 Significance and importance of learning ability

3.2 Components of learning ability

3.3 Establishing learning ability evaluation

3.4 Learning atmosphere

4. Development process

Development process of Learning ability for upgrading to college students based on ARCS Motivation Model in Baise University:

4.1 Development Approach 1: Learning Requirements

1) Clear learning requirements help students understand the specific goals that need to be achieved, and when students understand the expected learning outcomes, they are more likely to believe that they can achieve those goals, thereby enhancing self-efficacy.

2) Clear learning requirements encourage students to plan and allocate study time and improve their time management skills.

4.2 Development Approach 2: Difficulty

1) By adjusting the difficulty of learning tasks properly, students can be encouraged to challenge themselves, gradually improve their problem-solving ability, and enhance their learning ability to adapt to new situations.

2) Faced with tasks of varying difficulty, students need to assess their learning progress and strategies to promote self-monitoring and reflection.

4.3 Development Approach 3: Expectations

1) Setting reasonable expectations helps students build expectations of success, and when students believe they can meet those expectations, their sense of self-efficacy is enhanced.

2) Clear expectations encourage students to find and apply effective learning strategies to achieve their goals.

4.4 Development Approach 4: Attributions

1) Teaching students how to attribute success to their own efforts and using the right learning strategies, rather than external factors or luck, can significantly boost their sense of self-efficacy.

2) By analyzing the reasons for success or failure, students can better understand their own learning process and improve self-monitoring and reflection skills.

4.5 Development Approach 5: Self-Confidence

1) Enhancing students' self-confidence directly boosts their sense of self-efficacy and makes them more confident in their own abilities.

2) Confident students are more likely to plan their study time effectively because they believe they can accomplish their study tasks effectively.

3) Self-confidence encourages students to be more active in exploring and applying different learning strategies.

4) Confident students are more willing to take on new challenges and adapt to new situations because they believe they can overcome difficulties.

5) Self-confidence encourages students to evaluate and adjust their learning process to achieve better learning results.

5. Measurement and evaluation

5.1 Evaluate the results of students' level of Learning ability.

5.2 Assess the project's Learning ability management plan.

5.3 Evaluate the results of Learning ability management operational monitoring.

5.4 Assess the results presented by Learning ability management activities.

Learning ability

Learning ability affects an individual's learning motivation, learning behavior, and persistence in the face of learning challenges. The sense of learning ability is a specific application of the concept of self-efficacy in psychology in the field of education, which emphasizes the subjective judgment and confidence level of individuals on their own learning ability. By understanding and enhancing the sense of learning ability, learners can be helped to participate more effectively in the learning process and improve learning achievement.

Component and Indicator

The key features of Learning ability are described in 5 aspects as follows:

1. Students are confident in their ability to complete specific learning tasks. Self-efficacy involves an individual's assessment of their own ability to learn, that is, a person's belief in their ability to organize and perform the actions required to achieve a particular learning achievement. Self-efficacy is a key factor in individual psychological development and behavior, and is of great significance in promoting learning, work and personal development. By understanding and improving self-efficacy, individuals can better realize their potential and achieve their goals.

2. Students have the ability to plan and manage study time effectively. This includes identifying and prioritizing the most important study tasks, setting realistic study goals, rationalizing study time, and tips and strategies for avoiding time wastage. Time management skills are one of the key factors for personal and professional success. Time management skills are not innate, but can be gradually developed and improved

through practice and learning. Mastering time management skills can help individuals use their time more effectively to achieve their potential and goals.

3. Students have the ability to select and apply effective learning strategies. This ability covers the understanding of different learning strategies, the selection of the best strategy for the learning task at hand, and the process of adjusting the strategy according to the learning effect. The ability to use learning strategies is a key component of individual self-directed learning and lifelong learning, which is crucial for improving learning effectiveness and adapting to changing learning needs. The cultivation of the ability to use learning strategies is a continuous process, which requires the individual to try, evaluate and adjust constantly in practice to achieve the best learning effect.

4. Students have the ability to adapt to new learning environments and challenges. This ability involves the ability to quickly absorb new knowledge, flexibly apply existing knowledge to solve problems, and adjust learning methods according to changes in the learning environment. Adaptive learning is the key to continuous growth and success in a rapidly changing modern society. Adaptive learning is the key to staying competitive and achieving personal development in a rapidly changing world. Through continuous learning and self-improvement, individuals can improve their adaptive learning ability and better cope with various challenges in life and work.

5. Students have the ability to monitor their own learning process and reflect on learning outcomes. This ability enables individuals to identify their strengths and weaknesses, understand and analyze their behavior patterns and learning habits, and make corresponding adjustments to improve efficiency and effectiveness. The ability to self-monitor and reflect plays a vital role in personal growth, learning and career development. The ability to self-monitor and reflect is a key component of individual self-management and lifelong learning, and with ongoing practice and application, individuals can achieve greater success and satisfaction in their personal and professional lives.

Learning ability refers to the belief and assessment of one's ability to complete learning tasks and achieve learning goals. This perception affects an individual's learning motivation, learning behavior, and persistence in the face of learning challenges.

The purpose of improving students' Learning ability:

1. Promote deeper understanding
2. Increase your sense of self-efficacy
3. Develop critical thinking
4. Adapt to future challenges
5. Improve learning efficiency

8 Ways to improve students' Learning ability:

1. Teach learning strategies: Introduce and teach students effective learning strategies, such as memory skills, note-taking methods, time management, goal setting, etc., to help them organize and process information more effectively.

2. Encourage active learning: Encourage students to actively participate in the learning process by asking questions, participating in discussions, conducting experiments and projects to enhance their spirit of exploration and problem-solving skills.

3. Develop critical thinking: Through activities such as case studies, debates, and reflective diaries, students develop critical thinking skills so that they can independently analyze problems, evaluate information, and make sound judgments.

4. Use of multimedia and technology resources: Make full use of multimedia and Internet resources, such as online courses, educational software, video tutorials, etc., to provide students with a rich variety of learning materials to meet the needs of different learning styles.

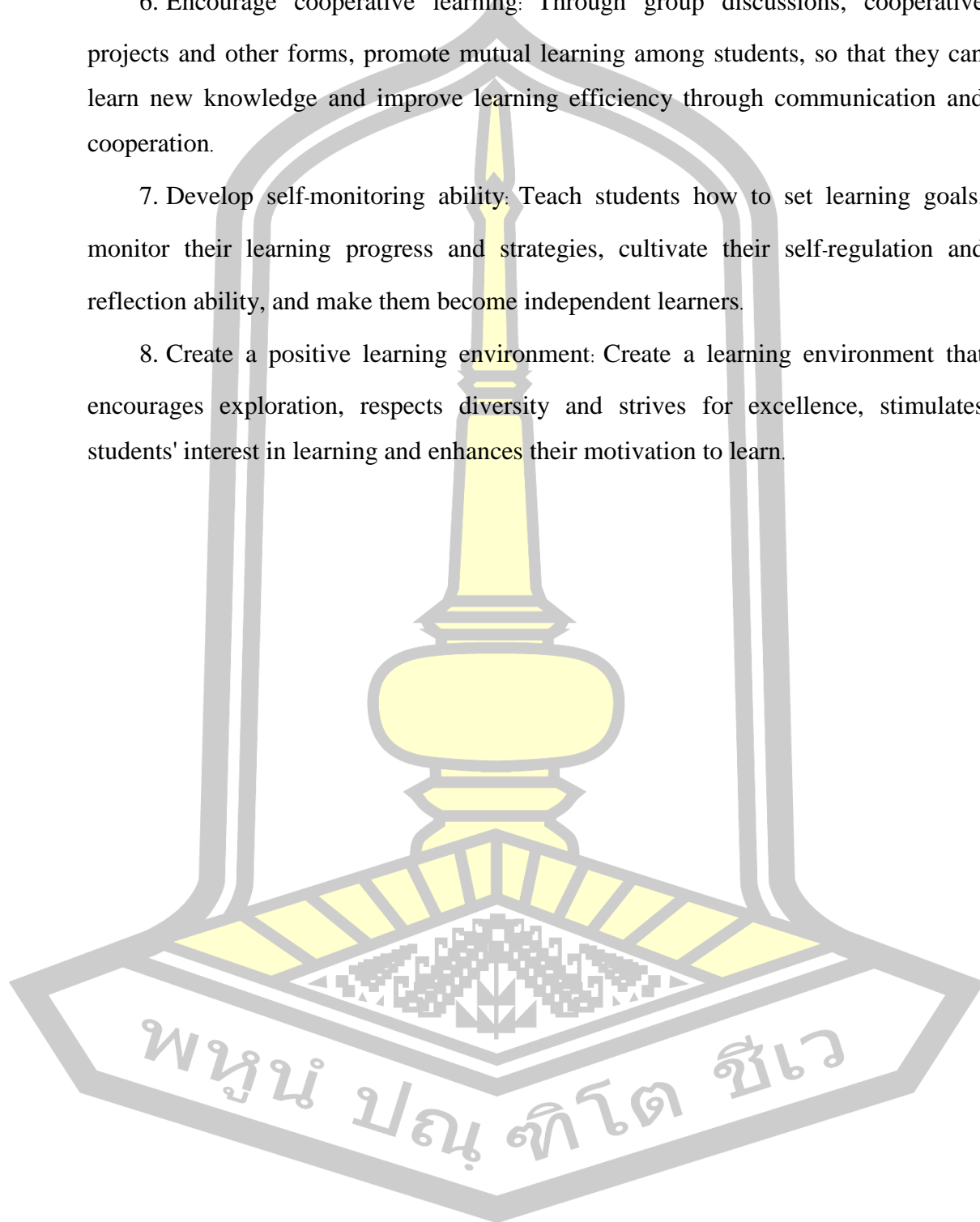
5. Provide feedback and support: Give students timely, specific feedback to help them recognize their progress and areas for improvement. At the same time, provide the

necessary support and resources to help students overcome difficulties in learning.

6. Encourage cooperative learning: Through group discussions, cooperative projects and other forms, promote mutual learning among students, so that they can learn new knowledge and improve learning efficiency through communication and cooperation.

7. Develop self-monitoring ability: Teach students how to set learning goals, monitor their learning progress and strategies, cultivate their self-regulation and reflection ability, and make them become independent learners.

8. Create a positive learning environment: Create a learning environment that encourages exploration, respects diversity and strives for excellence, stimulates students' interest in learning and enhances their motivation to learn.



Activity 3: Learning ability

Instructions: Class as a unit, in the theme class meeting class to do learning experience sharing.

1. Why is learning ability so important for students?

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2. How should students improve their learning abilities?

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3. Explain what problems and obstacles may arise and propose solutions.

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Content 4

Achievement attribution

1. Principle

Achievement Attribution is a concept in psychology that refers to the process by which individuals account for their experiences of success or failure, i.e. how individuals attribute their academic performance or achievements to specific causes. It is important for students to learn the correct way of achievement attribution to cultivate their positive learning attitude and continuous learning motivation. Proper achievement attribution means that students attribute their success to internal factors such as effort and the use of effective learning strategies, rather than external factors or chance. This type of attribution can enhance students' sense of self-efficacy and make them believe that they can acquire new knowledge and skills through their own efforts. When students recognize that their progress and success is the result of their own efforts, they are more likely to remain positive and persistent in the face of learning challenges, which promotes motivational arousal and self-driven learning behaviors. Therefore, educators should attach importance to cultivating students' correct achievement attribution and help them establish the belief that they have a sense of control over their learning outcomes, which plays an important role in stimulating students' intrinsic learning motivation and promoting their long-term academic achievement.

2. Objective

The purpose of training students to make correct attribution is to help them establish a positive learning attitude and self-efficacy, so as to enhance their learning motivation and persistence. The correct way of attribution enables students to understand the reasons behind their learning outcomes and challenges, so as to adjust their learning strategies and behaviors more effectively. Achievement attribution includes effort attribution, ability attribution, task difficulty attribution, luck attribution, situation

attribution and so on. The purpose of training students to make correct attribution is to enable them to understand and analyze their own learning experience more accurately, so as to promote positive learning behaviors, enhance learning motivation and self-regulation ability, and lay a solid foundation for lifelong learning.

3. Content

3.1 The Importance and Significance of Achievement Attribution

3.2 Components of Achievement Attribution

3.3 Application process and successful results of Achievement Attribution

3.4 Cultivate behavior habits of personal improvement and reflection

4. Development process

Development process of Achievement attribution for upgrading to college students based on ARCS Motivation Model in Baise University:

4.1 Development Approach 1: Natural Consequences

1) Help students attribute achievements to personal effort by allowing them to experience success or improvement as a direct result of their efforts. For example, getting positive feedback after completing a moderately difficult project allows students to see the immediate results of their efforts.

2) Natural consequences can also help students recognize an increase in their intrinsic abilities. When students successfully complete a task because they have acquired new skills or knowledge, they are more likely to attribute the achievement to their own abilities.

4.2 Development Approach 2: Unexpected Rewards

While unexpected rewards may be seen by students as the result of "luck," educators can use these opportunities to emphasize the effort and achievement behind

the reward, thereby helping students understand that even unexpected rewards are a natural consequence of their actions.

4.3 Development Approach 3: Positive Outcomes

Positive results encourage students to attribute success to their own efforts and abilities. Educators should emphasize that success is achieved through continuous effort and ability improvement, not just by chance.

4.4 Development Approach 4: Negative Influences

When students experience failure, understanding the negative effects (such as the difficulty of a task or adverse situational factors) can help them attribute the challenge to external factors that are controllable or uncontrollable, rather than personal failure. This helps students maintain a positive attitude and learn from the experience.

4.5 Development Approach 5: Scheduling

By rationalizing learning tasks and time, educators can help students see the impact of time management and environment Settings on learning outcomes. This prompts students to attribute achievement to effective planning and situational factors rather than just individual effort or ability.

5. Measurement and evaluation

5.1 Evaluate the results of students' mode of Achievement attribution.

5.2 Assess the project's Achievement attribution management plan.

5.3 Evaluate the results of Achievement attribution management operational monitoring.

5.4 Assess the results presented by Achievement attribution management activities.

Achievement attribution

Achievement Attribution is a concept in psychology that refers to the process by which individuals account for their experiences of success or failure, i.e. how individuals attribute their academic performance or achievements to specific causes. Understanding achievement attribution is of great significance to educational practice. It helps teachers and parents guide students to form positive attribution patterns, so as to promote students' learning motivation, emotional attitude and academic achievement.

Component and Indicator

The key features of Achievement Attribution are described in 5 aspects as follows:

1. Students attribute the learning success or failure to individual effort. Individuals are more likely to feel pride and satisfaction when they believe their achievements are due to their own efforts; Conversely, if failure is attributed to not trying hard enough, the individual may feel motivated to increase efforts in anticipation of future success. This type of attribution has important effects on individuals' motivations, emotional responses and future behavior choices. Effort attribution is an important psychological mechanism for individual self-regulation and self-improvement. Cultivating and strengthening this kind of attribution can promote individual's positive behavior and mental health.

2. Students attribute the success or failure in learning to an individual's inherent ability or intelligence. Ability attribution is an important perspective to understand how individuals interpret the results of their own and others' behaviors, and it has a profound impact on individual self-esteem, motivation and behavior choice. By cultivating a growth mindset, individuals can have a healthier view of abilities and efforts, facilitating personal learning and development.

3. Students attribute the success or failure to the difficulty of the task itself. This attribution category involves an individual attributing results to external factors rather than their own ability or effort. In this attribution model, individuals believe that the successful completion or failure of a task is directly related to the difficulty of the task

itself, but has little to do with the individual's internal qualities (such as intelligence, effort, etc.). By understanding task difficulty attribution and its impact on individual behavior and emotion, individual learning and development can be more effectively supported, especially in educational and work Settings.

4. Students attribute the learning success or failure to chance or luck. This type of attribution attributes the cause of an outcome to factors outside the individual's control. Luck attribution emphasizes the unpredictability and randomness of outcomes, with individuals believing that achievement or failure has nothing to do with their own behavior or traits, but is determined by lucky or unlucky chance. While luck attribution can explain an individual's success or failure in some circumstances, over-reliance on luck attribution can hinder an individual's growth and development. Therefore, the cultivation of positive attributions is of great significance for individual self-development and achievement.

5. Students attribute learning success or failure to supportive and disruptive factors in the learning environment. This type of attribution holds that an individual's behavior and achievement are significantly influenced by external situations and environmental conditions, and have little to do with the individual's intrinsic qualities or degree of effort. In order to promote individual self-development and adaptability, it is important to cultivate a balanced approach to attribution that takes into account both individual and situational factors. This balanced perspective helps individuals to more fully understand the causes of behavioral outcomes, thereby more effectively addressing challenges and promoting personal growth.

Achievement attribution refers to the process of how individuals attribute their successes or failures in learning, work, or other activities to specific factors. Achievement attribution involves an individual's interpretation and understanding of the reasons for success or failure. By understanding and applying the principles of achievement attribution, individuals can better understand their own successes and failures, thereby promoting self-growth and improving their ability to face challenges.

The purpose of students' learning the correct way of attribution:

1. Increase your sense of self-efficacy
2. Promote a positive attitude towards learning
3. Improve learning motivation
4. Develop adaptability and resilience
5. Support long-term academic and personal growth

7 ways of students to learn the correct way of attribution

1. Teach attribution theory explicitly: Introduce students to the basic concepts of attribution theory, including intrinsic and extrinsic attribution, and their impact on learning attitudes and behavior. Through case studies and discussions, students are helped to understand the consequences of different attributions.

2. Reflection and discussion: Students are encouraged to reflect when they encounter a learning challenge or success, discussing what they believe contributed to the outcome. Guide students to identify and question unhealthy attributive habits, such as attributing failure to immutable factors (such as intelligence).

3. Positive feedback and encouragement: Give positive feedback as students make progress, emphasizing the importance of effort and using the right strategies. This helps students attribute success to controllable factors such as effort and strategy.

4. Set moderately challenging goals: Set learning goals for students that are both challenging and achievable. When students achieve these goals, they are more likely to attribute success to their own efforts and strategies, enhancing self-efficacy.

5. Teach problem solving and coping strategies: Teach students effective problem solving and coping strategies to help them maintain a positive attitude in the face of difficulties. This helps students realize that with effort and strategic adjustments, they are able to overcome challenges.

6. Imitation and role playing: Through imitation and role playing activities,

students practice healthy ways of attributing challenges and successes in a safe environment. This approach can help students apply the correct attributions in real situations.

7. Create a supportive learning environment: Create a learning environment that encourages trial and error and tolerates error, so that students know that failure is part of the learning process and not a deficiency of ability.



Activity 4: Achievement attribution

Instructions: Class as a unit, in the theme class meeting class to do learning experience sharing.

1. Why is correct type of Achievement attribution so important for students?

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2. How should students learn the correct way of attribution?

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3. Explain what problems and obstacles may arise and propose solutions.

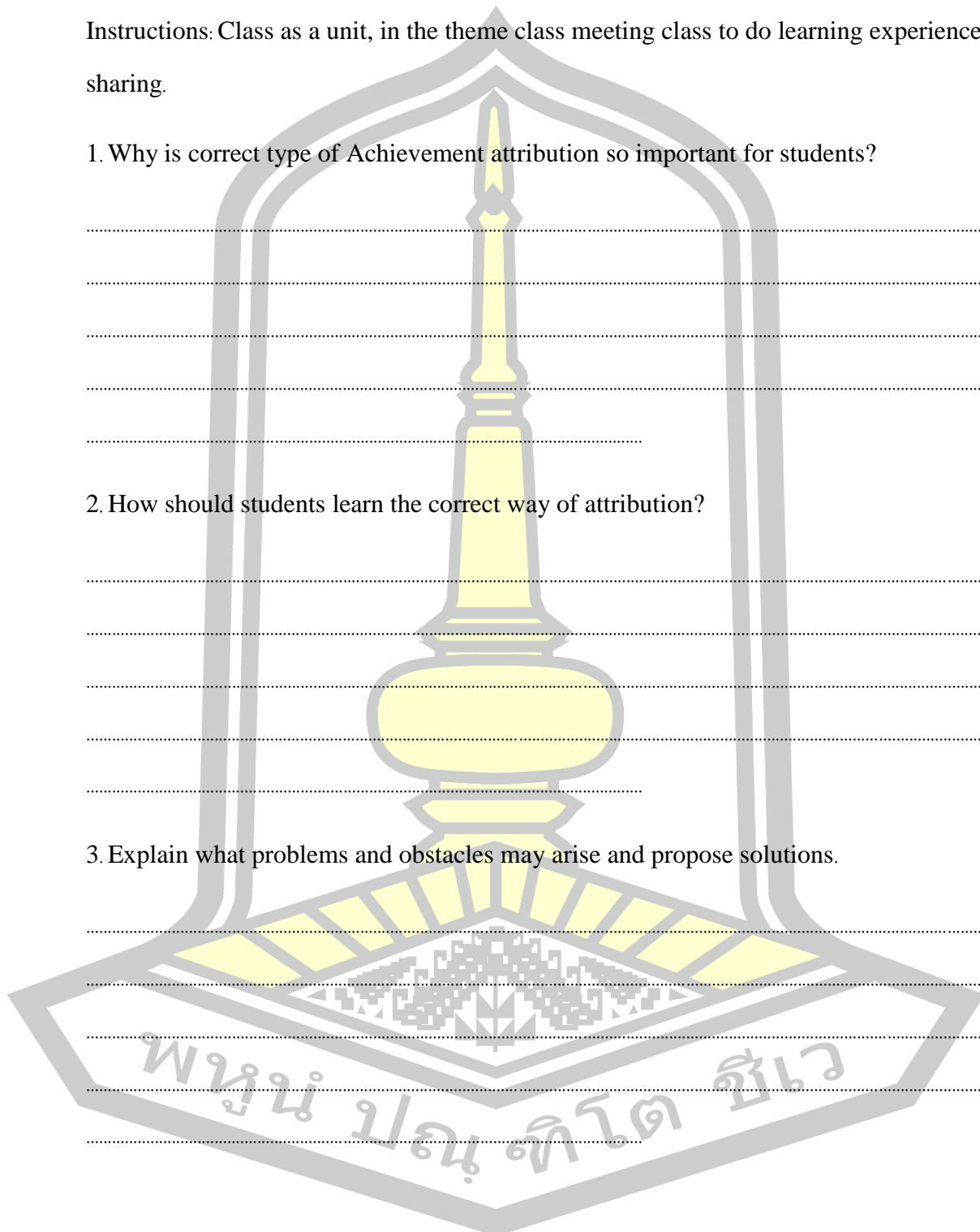
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Content 5

External influence

1. Principle

External influence plays a crucial role in influencing students' learning motivation. These factors include family environment, teacher support, peer interaction, school culture and social expectations, which together constitute the external environment and background of students' learning. Positive external support and encouragement can significantly increase students' interest and motivation in learning, help them build self-confidence and overcome learning challenges. For example, teachers' recognition and encouragement can enhance students' self-efficacy, family support can provide a stable learning environment, and the positive interaction of peers can stimulate the spirit of competition and cooperation in learning. Conversely, lack of support or negative external influences may reduce students' motivation and lead to a decline in academic performance. Therefore, creating a positive learning environment with the necessary external support and resources is of great importance in stimulating students' learning motivation and promoting their academic achievement.

2. Objective

The purpose of adjusting the influence of external environment on students' learning is to create a positive and supportive learning atmosphere, so as to stimulate students' learning motivation, improve learning efficiency and academic achievement. The external influence mainly includes teacher support, classmate mutual aid, school culture, social expectation and values, family environment and so on. By adjusting and optimizing the external environment, students can be provided with an environment conducive to learning and development, thereby stimulating their learning motivation and promoting academic and personal growth.

3. Content

3.1 Significance and importance of External influence

3.2 Components of External influence

3.3 Refining and rethinking processes to achieve success goals

4. Development process

Development process of External influence for upgrading to college students based on ARCS Motivation Model in Baise University:

4.1 Development Approach 1: Learning Requirements

1) Clear learning requirements help students understand teachers' expectations, and teachers can support students in meeting these requirements by providing guidance and feedback, enhancing students' motivation.

2) Once parents understand the school's learning requirements, they can provide additional support and resources at home to help students meet those requirements.

4.2 Development Approach 2: Expectations

1) Society's expectations and values about education influence students' motivation to learn. Clarifying society's expectations for learning outcomes can motivate students to work hard to meet those expectations.

2) The expectation and encouragement of good results in the school culture can boost students' motivation to learn, especially when achievement and effort promoted by the school are highly valued.

4.3 Development Approach 3: Need Matching

1) Through group learning and peer tutoring, students can help each other meet their learning needs, and this mutual assistance can enhance the relevance and motivation of learning.

2) The home environment should encourage students to explore personal interests and career goals, and enhance the personal meaning of learning through learning activities that match these personal needs.

4.4 Development Approach 4: Present Worth

1) Teachers can boost motivation by connecting learning content to students' current life experiences and interests, helping students see the immediate value of learning.

2) Society's high evaluation of certain knowledge and skills can enhance students' current perception of the value of learning in these areas, thus boosting motivation.

4.5 Development Approach 5: Future Usefulness

1) Families can emphasize the importance of education for future career success and personal development, helping students see the long-term value of learning.

2) Society's demand for high levels of education and professional skills can motivate students to study in order to achieve future career goals and social status.

4.6 Development Approach 6: Variability

1) Schools can enhance students' motivation by offering a variety of courses and activities to meet their different learning needs and interests.

2) Mutual assistance and communication between classmates can provide a variety of learning perspectives and experiences, enrich the learning content, and stimulate students' interest and motivation.

5 Measurement and evaluation

5.1 Evaluate the results of students' mode of External influence.

5.2 Assess the project's External influence plan.

5.3 Evaluate the results of External influence adjusting operational monitoring.

5.4 Assess the results presented by External influence adjusting activities.

External influence

There are various external factors that affect learning motivation, which come from learners' environment and social background, including Teacher's support, Classmate interaction, School culture, Societal expectations and values, Family environment. These factors can directly or indirectly affect the learner's motivation level and promote or hinder the learning process. These external factors influence learners' motivation through different pathways and mechanisms, and understanding these factors is of great significance for creating supportive learning environments, designing effective teaching strategies, and promoting students' active learning.

Component and Indicator

The key features of External influence are described in 5 aspects as follows:

1. Students believe that teachers' ability to teach, encouragement, feedback on outcomes, and personalized attention have an impact on learning. This support can be emotional, academic or social and aims to create a positive and encouraging learning environment that helps students overcome their learning difficulties, stimulates their learning interests and potential, and promotes their overall development. Teacher support is considered to be one of the key factors affecting students' learning effectiveness, motivation and adaptability to school. Teacher's support plays a vital role in students' academic achievement, emotional development and social adjustment, and is one of the key factors in promoting students' all-round development.

2. Students believe that cooperative learning, competition and social interaction

among classmates can affect learning interest and engagement. This mutual assistance can involve the interpretation of academic content, the sharing of learning strategies, the provision of emotional support, and the encouragement and assistance given in the face of difficulties and challenges. Peer support is based on cooperation and mutual respect among peers and is an important part of the school education environment to promote student learning and personal development. Classmate interaction not only contributes to students' academic growth, but also plays an important role in their emotional development and social skills improvement, and is an indispensable part of the educational process.

3. Students believe that the values, expectations and learning atmosphere of the school affect learning. It includes not only the official rules and regulations of the school and educational objectives, but also the attitudes, values, behavioural patterns and learning climate displayed by teachers, students and other school members in their daily interactions. School culture has a profound influence on students' learning attitude, academic achievement, social behavior and teachers' teaching style and career satisfaction. School culture is one of the key factors in the success of the school, which affects every member of the school and the overall atmosphere of the school. By fostering and maintaining a positive school culture, students can be provided with an environment conducive to learning and growth.

4. Students believe that the value society places on education and the values it places on a particular subject affect learning motivation. Although social expectations and values are two different concepts, they are interrelated and influence each other. Values form the basis of social expectations, which reflect generally accepted values in a particular cultural and social context. At the same time, by adhering to social expectations, individuals and groups express identification with and support for these values. With the development of society and cultural changes, values and social expectations will also change, reflecting the dynamic and diverse nature of society.

5. Students believe that the expectations, support and availability of learning resources provided by the family have an important impact on learning. Family

environment has a profound impact on the growth, development and well-being of individuals, especially in the areas of mental health, social skills, learning ability and value formation of children and adolescents. Family environment is the cornerstone of individual development. By providing a warm, supportive and encouraging family environment, it can promote the healthy growth and all-round development of family members, especially children and adolescents.

External influence refers to those factors that come from an individual's external environment, which can affect an individual's interest in learning, level of engagement, and willingness to continue learning. In order to promote student motivation, educators, schools, parents and society need to work together to create a positive and supportive learning environment, while encouraging students to develop the ability to self-regulate learning and balance the relationship between extrinsic and intrinsic motivation.

The purpose of adjusting student's external environment:

1. Provide a stable support system
2. Enhance learning motivation
3. Develop a positive attitude towards learning
4. Improve learning efficiency and effectiveness
5. Promotes social and emotional development

8 ways to adjust student's external environment:

1. Enhance family involvement: Encourage parents to participate in their child's learning process, including supervising homework, attending parent-teacher meetings, and supporting school activities. Family support and encouragement can significantly improve students' motivation to learn.

2. Optimize teaching methods: Teachers should adopt a variety of teaching methods, including interactive teaching, project-based learning and game-based learning, to increase student engagement and interest.

3. Provide positive feedback: Teachers and parents should give students positive feedback and recognition, emphasizing students' efforts and progress rather than just

grades to increase their confidence and motivation to learn.

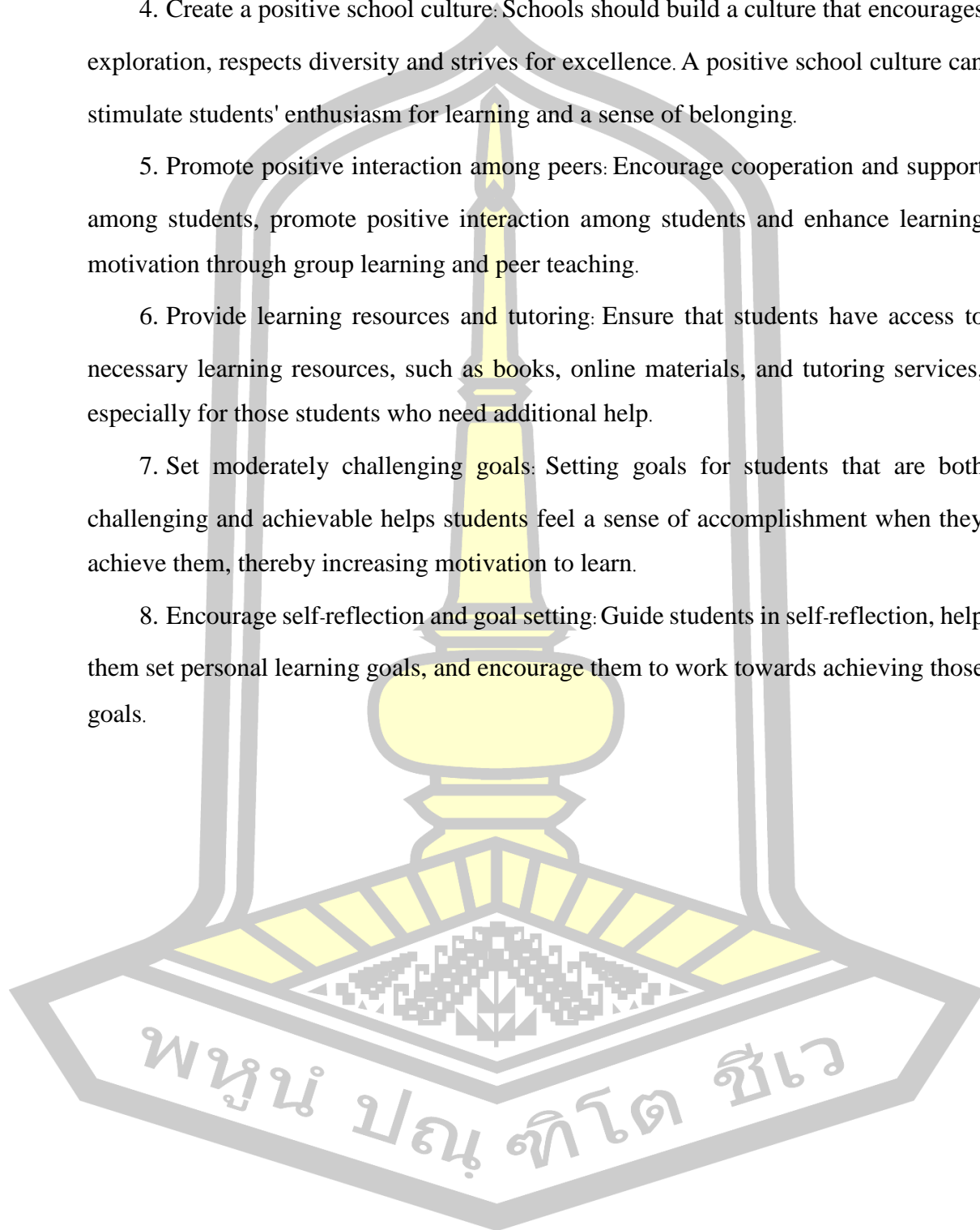
4. Create a positive school culture: Schools should build a culture that encourages exploration, respects diversity and strives for excellence. A positive school culture can stimulate students' enthusiasm for learning and a sense of belonging.

5. Promote positive interaction among peers: Encourage cooperation and support among students, promote positive interaction among students and enhance learning motivation through group learning and peer teaching.

6. Provide learning resources and tutoring: Ensure that students have access to necessary learning resources, such as books, online materials, and tutoring services, especially for those students who need additional help.

7. Set moderately challenging goals: Setting goals for students that are both challenging and achievable helps students feel a sense of accomplishment when they achieve them, thereby increasing motivation to learn.

8. Encourage self-reflection and goal setting: Guide students in self-reflection, help them set personal learning goals, and encourage them to work towards achieving those goals.



Activity 5: External influence

Instructions: Gather everyone to discuss each topic as specified and summarize the learning exchange.

1. Why is External influence so important in the educational process?

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2. How should adjust student's external environment?

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3. Explain what problems and obstacles may arise and propose solutions.

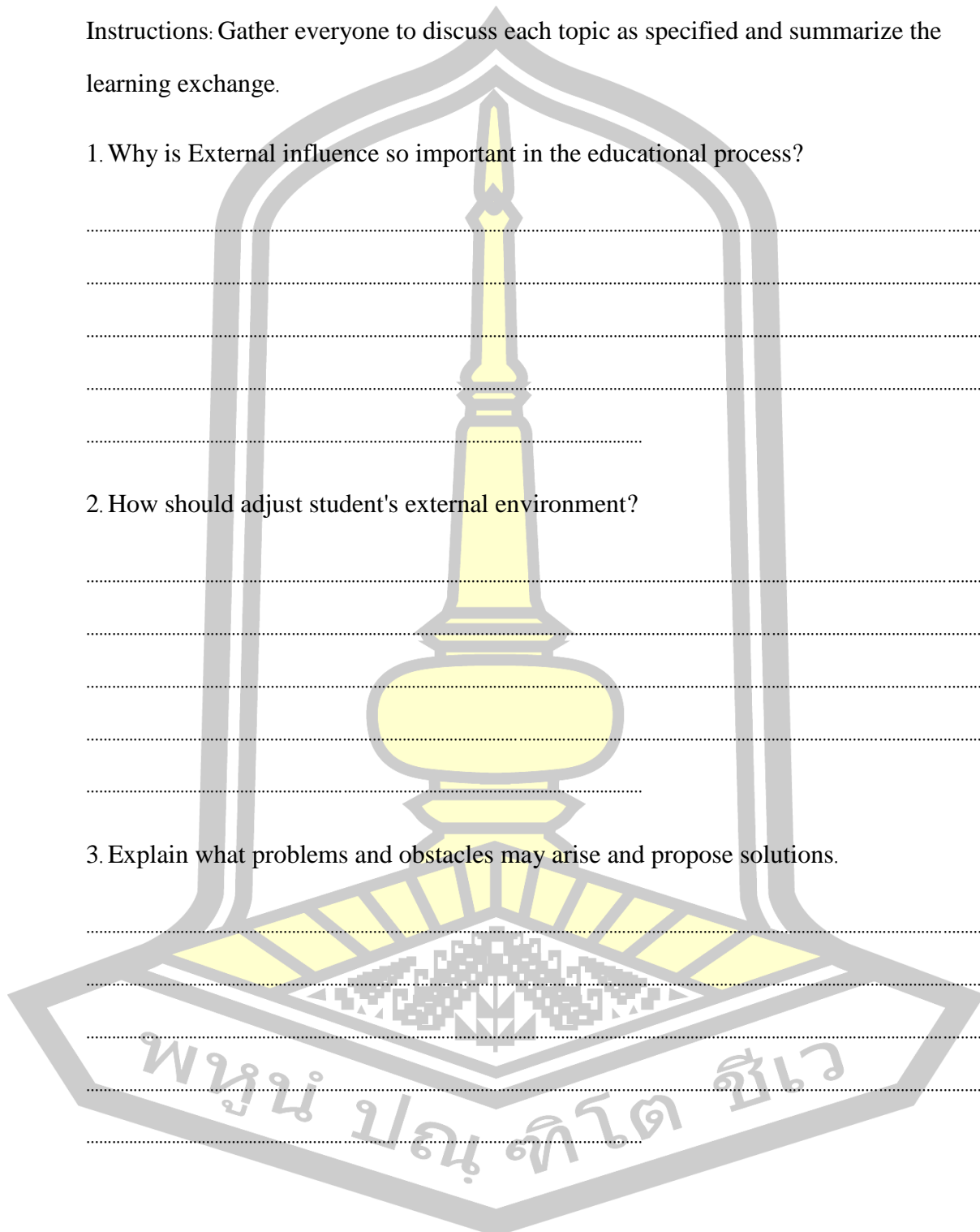
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**Assessment form of upgrading to college students' learning motivation
development approach of Baise University**

Assessment form of upgrading to college students' learning motivation development approach of Baise University, this is an assessment tool. The aim is to develop the learning motivation of upgrading to college students in Baise University. This evaluation form is designed to assess the suitability, accuracy and feasibility of the development approach. This evaluation form is divided into the following 2 parts:

Part 1: General Information of Qualified Personnel

Part 2: Evaluation of the suitability, accuracy and feasibility evaluation of the upgrading to college students' learning motivation developing approach in Baise University.

Instructions: Please read each statement carefully, then tick the box () as to whether you think the approach is suitable for developing learning motivation of upgrading to college students in Baise University, using the following evaluation criteria, divided into the following 5 levels:

4.51 - 5.00 refers to suitability, accuracy and feasibility as highest

3.51 - 4.50 refers to suitability, accuracy and feasibility as high

2.51 - 3.50 refers to suitability, accuracy and feasibility as a medium

1.51 - 2.50 refers to suitability, accuracy and feasibility as low

1.00 - 1.50 refers to suitability, accuracy and feasibility as lowest

Part 1: General Information of Qualified Personnel

Name of the respondent completing the assessment form:

Current position title:

Current position held:

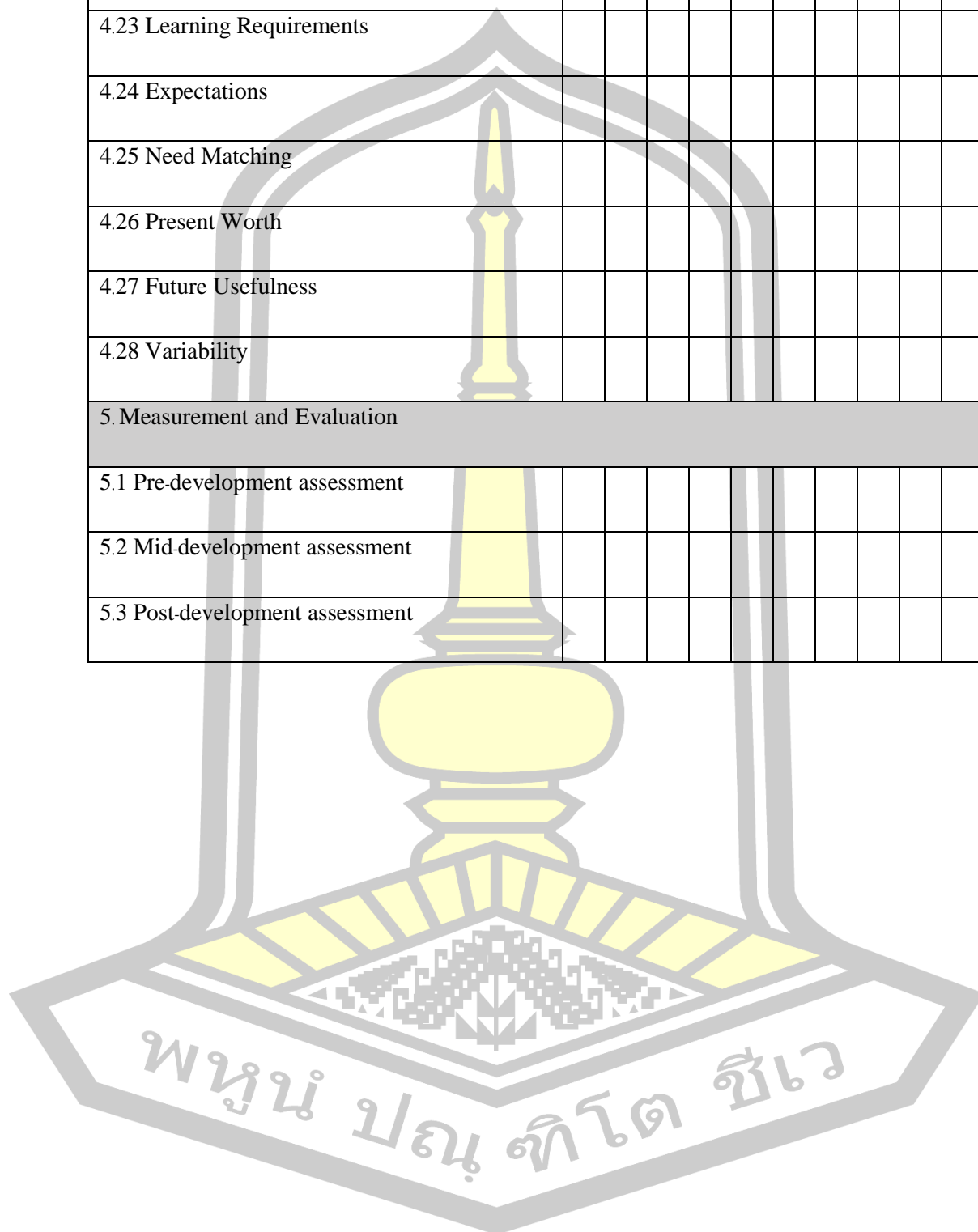
Workplace location:

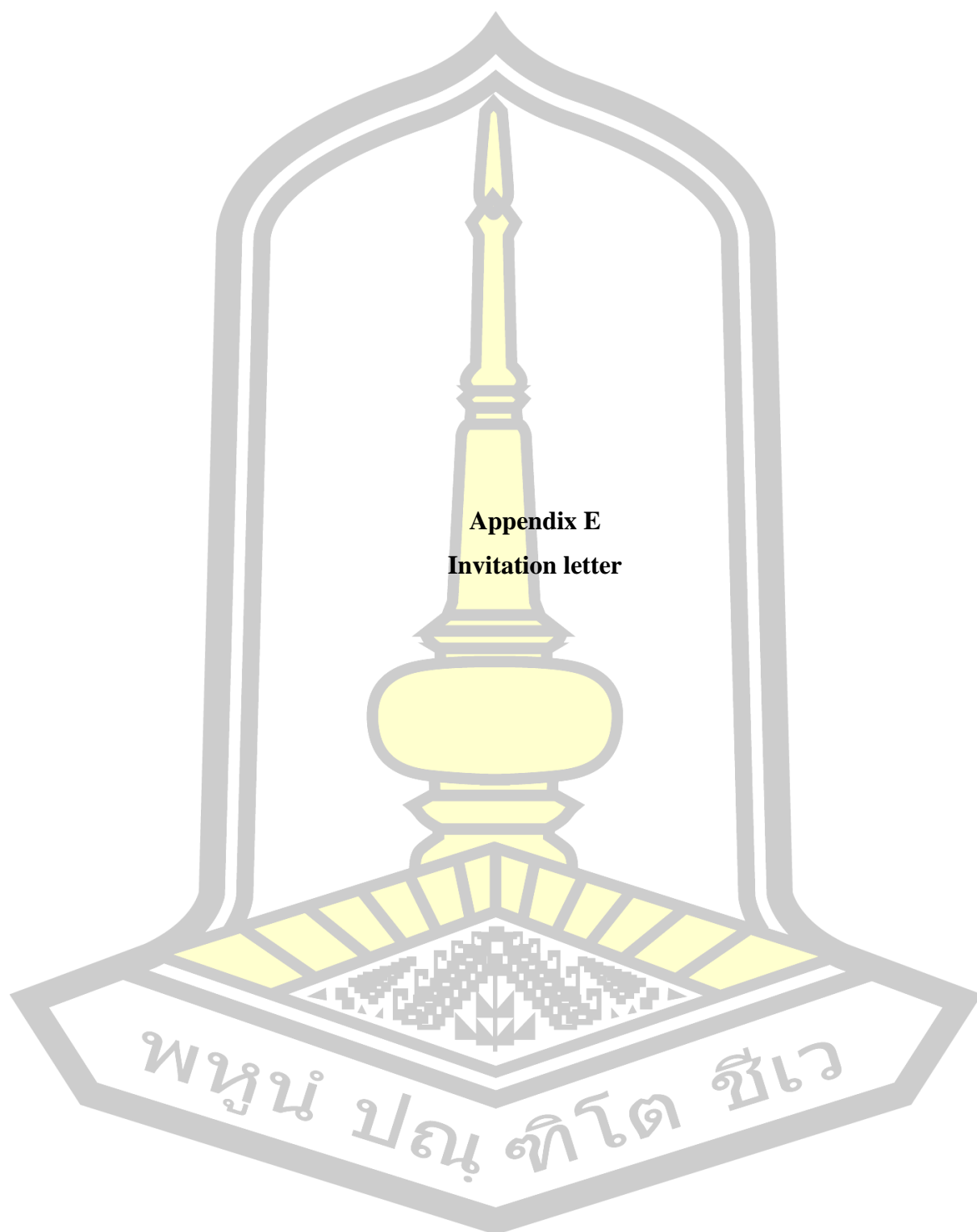
Part 2: Evaluation of the suitability and feasibility evaluation of the upgrading to college students' learning motivation developing approach in Baise University

Instructions: Please mark (√) the appropriate score in the box that you believe is suitable.

Evaluation list	Suitability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
1.Principles										
2.Objectives										
3. Content										
3.1 Content 1: Knowledge value										
3.2 Content 2: Learning interest										
3.3 Content 3: Learning ability										
3.4 Content 4: Achievement attribution										
3.5 Content 5: External influence										
4. Development Process										

4.22 Scheduling																				
4.23 Learning Requirements																				
4.24 Expectations																				
4.25 Need Matching																				
4.26 Present Worth																				
4.27 Future Usefulness																				
4.28 Variability																				
5. Measurement and Evaluation																				
5.1 Pre-development assessment																				
5.2 Mid-development assessment																				
5.3 Post-development assessment																				





Appendix E
Invitation letter



FACULTY OF EDUCATION
MAHASARAKHAM UNIVERSITY

79/2 Muang, Maha Sarakham,
44000, THAILAND
Tel/fax +66 43 713 174
Email: cia.edu@msu.ac.th

Center for International Affairs

MHERSI No. 0605.5 (1) / 493

Date: February 28, 2024

To: Whom it May Concern

Baise University, Baise City, Guangxi Province, China

Subject: Data Collection Permission Request

Our student, **Ms. Yang Lijuan**, student number **64010561033**, majoring in the Ed.D. Educational Administration and Development program is currently undertaking a research project under the guidance of **Assoc. Prof. Suwat Julsuwan**.

To ensure the success and quality of this project, we are seeking your permission to allow our student to process data collection within your institution.

The details of the data collection are as follows:

Thesis title: "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**"

The period of data collection: **March, 2024 to July, 2024.**

We believe that your institution provides a valuable environment and resources that are essential for the successful execution of this research. The data collection process will be carried out diligently and with the utmost respect for your institution's policies and procedures. We acknowledge that the student has made the necessary preparations, including obtaining the Thesis title approval from our institution.

Should you require any further information or clarification regarding this permission, please feel free to contact us by email.

Yours sincerely,

Assoc. Prof. Chowwalit Chookhampaeng

Dean, Faculty of Education,
Maharakham University



FACULTY OF EDUCATION
MAHASARAKHAM UNIVERSITY

79/2 Muang, Maha Sarakham,
44000, THAILAND
Tel/fax +66 43 713 174
Email: cia.edu@msu.ac.th

Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Assoc. Prof. Pacharawit Chansirisira**
Department of Educational Administration,
Faculty of Education

Subject: **Thesis Reviewer Invitation**

Our student, **Ms. Yang Lijuan, student ID 64010561033**, majoring in the Ed. D. Educational Administration and Development program is currently undertaking a research project titled "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**" under the guidance of **Assoc. Prof. Suwat Julsuwan**.

To ensure the successful execution and the highest quality of this research project, we are seeking your valuable expertise and experience. Therefore, I am delighted to extend a formal invitation to you to serve as a reviewer for the research instrument designed for this thesis project.

Your participation in this academic endeavor is highly valued and appreciated. Should you require any further information or have questions regarding this invitation, please do not hesitate to contact us by email.

Yours sincerely,

Assoc. Prof. Chowwalit Chookhampaeng
Dean, Faculty of Education,
Maharakham University



79/2 Muang, Maha Sarakham,
44000, THAILAND
Tel/fax +66 43 713 174
Email: cia.edu@msu.ac.th

Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Asst. Prof. Thatchai Chittranun**
Department of Educational Administration,
Faculty of Education

Subject: **Thesis Reviewer Invitation**

Our student, **Ms. Yang Lijuan, student ID 64010561033**, majoring in the Ed. D. Educational Administration and Development program is currently undertaking a research project titled "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**" under the guidance of **Assoc. Prof. Suwat Julsuwan**.

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Yours sincerely,



Assoc. Prof. Chowwalit Chookhampaeng
Dean, Faculty of Education,
Maharakham University



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MAHASARAKHAM UNIVERSITY

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44000, THAILAND
Tel/fax +66 43 713 174
Email: cia.edu@msu.ac.th

Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Cao Alin**
Director of Academic Affairs Office,
Baise University, China

Subject: **Thesis Reviewer Invitation**

Our student, **Ms. Yang Lijuan**, student ID **64010561033**, majoring in the Ed. D. Educational Administration and Development program is currently undertaking a research project titled "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**" under the guidance of **Assoc. Prof. Suwat Julsuwan**.

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Dean, Faculty of Education,
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Email: cia.edu@msu.ac.th

Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Chen Yihu**
Director of Teaching Management,
Hezhou University, China

Subject: **Thesis Reviewer Invitation**

Our student, **Ms. Yang Lijuan**, student ID **64010561033**, majoring in the Ed. D. Educational Administration and Development program is currently undertaking a research project titled "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**" under the guidance of **Assoc. Prof. Suwat Julsuwan**.

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Assoc. Prof. Chowwalit Chookhampaeng
Dean, Faculty of Education,
Maharakham University



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MAHASARAKHAM UNIVERSITY

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Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Huang Jianxiong**
Director of Center for Subject Development,
Baise University, China

Subject: **Thesis Reviewer Invitation**

Our student, **Ms. Yang Lijuan, student ID 64010561033**, majoring in the Ed. D. Educational Administration and Development program is currently undertaking a research project titled "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**" under the guidance of **Assoc. Prof. Suwat Julsuwan**.

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44000, THAILAND
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Email: cia.edu@msu.ac.th

Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Jiang Hongxing**
Vice President,
Hezhou University, China

Subject: **Thesis Reviewer Invitation**

Our student, **Ms. Yang Lijuan**, student ID **64010561033**, majoring in the Ed. D. Educational Administration and Development program is currently undertaking a research project titled "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**" under the guidance of **Assoc. Prof. Suwat Julsuwan**.

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Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Liu Fang**
Vice President, Baise University, China

Subject: **Thesis Reviewer Invitation**

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Dean, Faculty of Education,
Maharakham University



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44000, THAILAND
Tel/fax +66 43 713 174
Email: cia.edu@msu.ac.th

Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Pu Ricai**
Director of Faculty of Teacher Education,
Hezhou University, China

Subject: **Thesis Reviewer Invitation**

Our student, **Ms. Yang Lijuan**, student ID **64010561033**, majoring in the Ed. D. Educational Administration and Development program is currently undertaking a research project titled "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**" under the guidance of **Assoc. Prof. Suwat Julsuwan**.

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Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Qin Chengbu**
Director of Teaching Management,
Nanning Normal University, China

Subject: **Thesis Reviewer Invitation**

Our student, **Ms. Yang Lijuan, student ID 64010561033**, majoring in the Ed. D. Educational Administration and Development program is currently undertaking a research project titled "**An Approach Developing Learning Motivation of Upgrading to College Students Through Based on ARCS Motivation Model in Baise University**" under the guidance of **Assoc. Prof. Suwat Julsuwan**.

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Maharakham University



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MAHASARAKHAM UNIVERSITY

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Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Wang Fang**
Director of Center for Teaching Quality Evaluation,
Baise University, China

Subject: **Thesis Reviewer Invitation**

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Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Wen Fengping**
Deputy Director of Academic Affairs Office,
Baise University, China

Subject: **Thesis Reviewer Invitation**

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Maharakham University



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Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Wu Xianyong**
Dean of Faculty of International Education,
Baise University, China

Subject: **Thesis Reviewer Invitation**

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Center for International Affairs

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Date: February 28, 2024

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Vice President,
Nanning Normal University, China

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Dean, Faculty of Education,
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Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Yang Xiufu**
Dean of Faculty of Education,
Baise University, China

Subject: **Thesis Reviewer Invitation**

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Dean, Faculty of Education,
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Email: cia.edu@msu.ac.th

Center for International Affairs

MHERSI No. 0605.5 (2) /CL494

Date: February 28, 2024

To: **Prof. Yu Zhaowen**
Director of Student Affairs,
Baise University, China

Subject: **Thesis Reviewer Invitation**

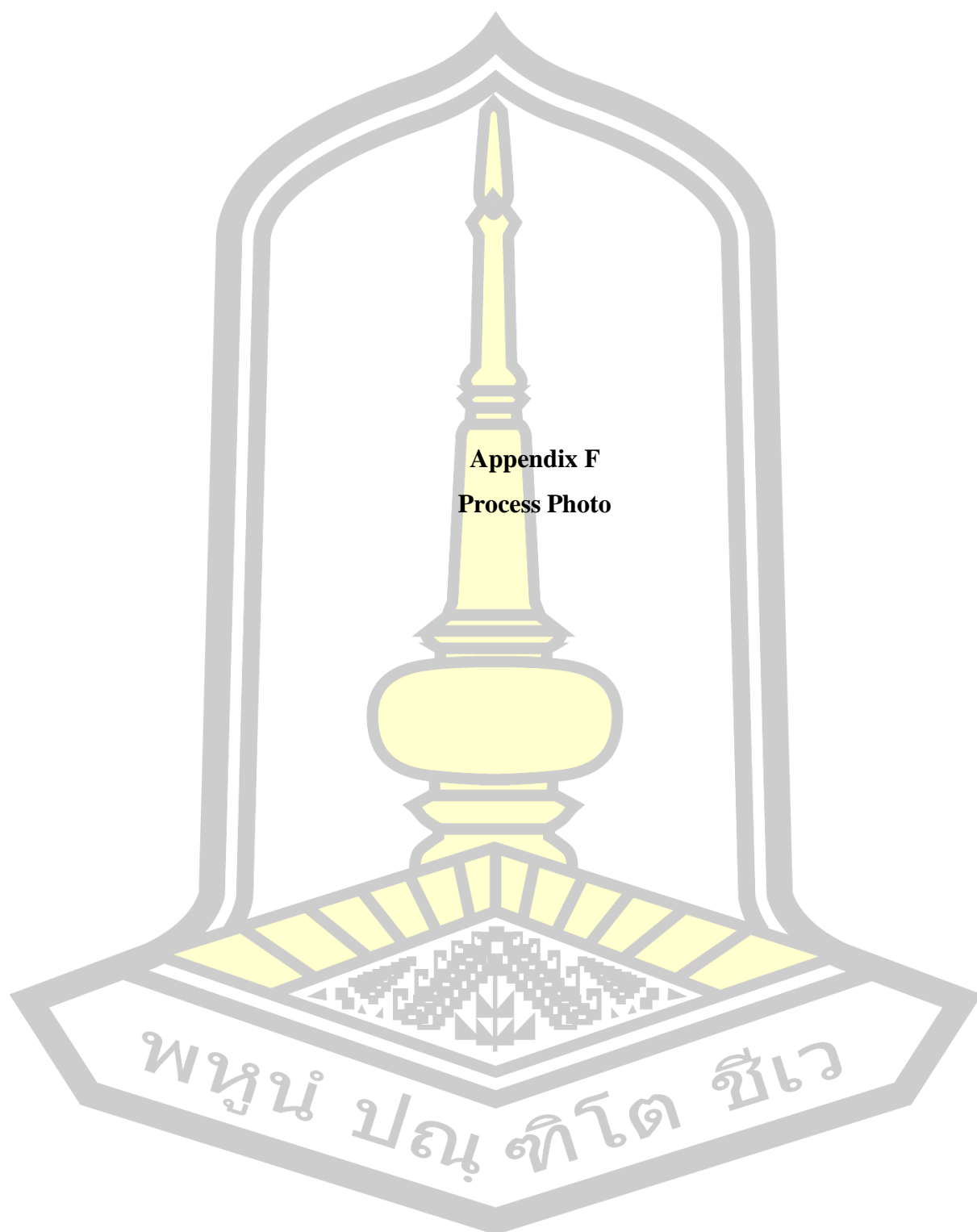
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Dean, Faculty of Education,
Maharakham University



Appendix F
Process Photo



Collect early data and listen to expert opinions



Conducting research activities at Baise University



Visit excellent University



The components and indicators are tested by experts and the effectiveness of each component and indicator.



Organize students to fill out questionnaires

พหุ ประเด็น ทักษะ



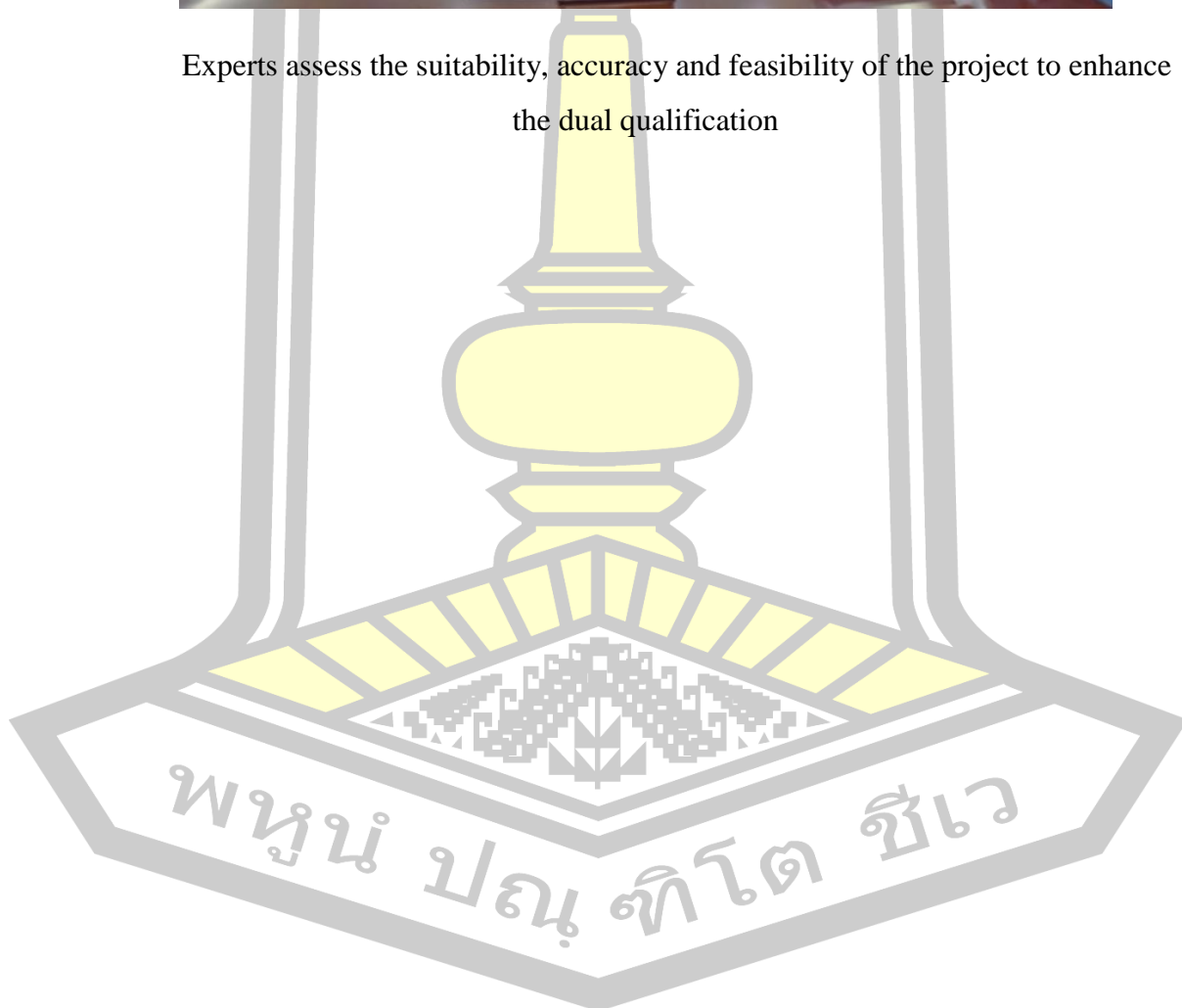
Experts review research and development tools to give their opinion on the consistency of the problem



Experts review the procedures of the research program and give their opinion on the consistency of the problem



Experts assess the suitability, accuracy and feasibility of the project to enhance the dual qualification



BIOGRAPHY

NAME	Lijuan Yang
DATE OF BIRTH	05 Nov. 1991
PLACE OF BIRTH	Baise, Guangxi, China
ADDRESS	21 Chengbei 2nd Road, Baise City, Guangxi Province
POSITION	Educational administrator
PLACE OF WORK	Baise University
EDUCATION	2004 Lingyun No.1 Primary School, Baise, Guangxi, China 2007 Lingyun National Middle School, Baise, Guangxi, China 2010 Qifu High school, Guangxi, China 2014 Bachelor of Guangxi Normal University, English Education, Guangxi, China 2018 Master of South-Central Minzu University of Chinese Minority Language and Literature, Wuhan, China 2024 Doctor of Educational Administration and Development, Faculty of Education, Mahasarakham University, Thailand

พหุบัณฑิต ชีเว