

A STUDY ON THE " MICRO-SPEECH BEFORE CLASS" BASED ON THE SELF-DETERMINATION THEORY TO EXERCISE STUDENTS' ORAL EXPRESSION

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Abstract: Society is changing with each passing day. The emergence of "micro-era" such as "micro-blog", "We-Chat", "micro-film", and "micro-fiction" is not only impacting people's vision, but also change people's lives. Chinese teachers in vocational colleges should look to the society, keep close to the reality of students' life, and boldly change their own teaching ideas and models. Taking the word "micro" as the starting point, the integration of self-determination theory, to carry out the "micro-speech before class" teaching activities, so that students' Chinese life is colorful, so that they constantly enjoy the charm and wisdom of oral Chinese at the same time, but also for the future necessary professional ability to lay a solid foundation.

This paper through interviews, observation, text analysis, focus group discussion, case study and researcher reflection on qualitative research method, the self-determination theory and the combination of micro-speech before class, found that when students to meet their basic psychological needs, the internal motivation, is conducive to the oral expression ability, also greatly improve the learning participation and social participation. Therefore, stimulating the internal motivation of oral Chinese training can meet the autonomy needs of students; designing reasonable and systematic teaching activities to meet the competence needs of students; establishing democratic and safe interpersonal relationship to meet the relatedness needs of students.

Keywords: Self-Determination Theory, Micro-Speech Before Class, Exercise Oral Expression

Introduction

Studies suggest that the appropriate challenge is an important prerequisite for internal motivation generation (Deci & Kornazheva, 2001). When designing and arranging teaching activities, teachers will pay attention to matching with students' knowledge and skills to meet the needs of students' ability development. However, in the process of implementation, the internal motivation and psychological needs of the students themselves are often ignored.

The current Chinese teaching is still the structure mode of teachers' "one speech hall" teaching,

and students are in a passive acceptance position, unable to generate the internal motivation of learning (Wu, 2011). If with the help of the "micro-speech before class" teaching activities, is it a more comprehensive evaluation of students, more conducive to the development of students' potential, but also more stimulate students' interest in learning Chinese, expand students' horizon, knowledge, improve students' Chinese literacy.

Speech is encouraging, targeted, artistic, emotional and other. Its core function is to influence and inspire and listen. Therefore, students are interested in this activity and are willing to participate in (Xia, 2016). There are many ways of speaking, with various positions. The school teaching classroom is a good speech position, and the micro-speech form before the Chinese class has a different effect and effect. In the micro-speech activities before class, the students are both the main body and the object. Everyone participates, and everyone interacts.

Research Objectives

With the continuous improvement of the requirements for oral expression ability in modern society, exercising oral expression and improving communication ability will become the most basic ability demand for every social person to adapt to modern social communication. As the vocational colleges that cultivate the future social talents, they should give full play to the guidance of teachers and students in the Chinese classroom, and give students full time and space to show their eloquence. Therefore, this paper aims to study how to exercise students' oral expression through the teaching activity of "micro-speech before class" based on the self-decision theory.

a. To integrate self-determination theory to meet students' psychological growth needs and improve the potential of self-realization. In the teaching activity of "micro-speech before class", students can continuously gain the sense of experience and happiness of growth.

b. To explore innovative speech mode, with the teaching activity of "micro-speech before class", effectively make up for the lack of class hours, mobilize positive emotions, stimulate the desire for knowledge, stimulate students to invest in the process of cognition, preparation and speech.

c. To demonstration with the help of short before class micro-speech mode, after systematic design, implementation and evaluation, can improve the students' oral expression ability, exercise their independent thinking ability, edify sentiment, sublimation thought, improve quality, for their future better based on the society, develop life, create conditions and lay the foundation.

Literature Review

Self-determination theory: Basic psychological needs in motivation, development, and wellness. The book is a definitive work of self-determination theory, detailing various aspects of self-determination theory, including the concept of psychological needs, the difference between internal and external motivation, and applications in education, work, sports, and more (Ryan & Deci, 2017).

Li Jingqiu published in 2013 in the exam weekly "in secondary vocational Chinese teaching in the speech before class" elaborated: in view of the disadvantages of Chinese teaching in secondary vocational schools, we should constantly study how to improve the teaching methods (Li, 2013).

Teaching by principles: An interactive approach to language pedagogy. This book introduces the principles and methods of language teaching, which includes the teaching of oral expression. It provides a range of teaching strategies and activities to help learners develop fluent, accurate, and meaningful spoken skills (Brown, 2007).

From the perspective of the present situation of existing research, most of the research and paper writing from the guiding ideology, specific practice, the feasibility of vocational colleges language micro-speech before class and effectiveness, from another side to explore the new way of the reform of Chinese teaching, to play the students' subjective initiative, improve the language learning performance will play a positive role. However, under the guidance of self-determination theory, how to develop more speech themes and change more speech forms with different academic requirements for students of different majors, different grades, and integrate richer evaluation criteria, but have no more exploration and research on such "different treatment". Therefore, with the help of two classes teaching in Nanjing Business Branch of Jiangsu United Vocational and Technical College, one is the 14th joint class of e-commerce major and the other is the 13th Chinese and American class of International Education College, which are different majors, different grades and different academic requirements. Between classes, between students, interview observation, group discussion, contrast trials, record reflection. Develop micro-speech themes that adapt to the learning situation, track and adjust the effect of their activities, think and explore, and finally form my own research results.

Methodology

This paper uses qualitative research methods. It emphasizes the description and interpretation of human behavior, attitudes, beliefs, opinions, and experiences, usually by collecting and analyzing unstructured or semi-structured data for (Patton, 2014). The following are the specific qualitative research methods adopted by the author:

a. Interview: In-person or online in-depth interviews with participants to obtain detailed information and perspectives. Interviews can be structured (following a pre-designed list of questions) or unstructured (more open and flexible, allowing participants to speak freely) (Creswell, 2013). Through interviews with students, I can understand students' views on Chinese learning, their interest and habits in speech, their attitude and enthusiasm towards micro-speech before class, as well as the theme and content they want to determine.

b. Observation: The researcher directly observes and records the participants' behavior and interactions in the natural environment. The observation can be participatory (investigator actively participate and experience with the participant) or non-participatory (investigator only observe and do

not intervene) (Creswell & Poth, 2017). Through observation, students found that at present, employment-oriented vocational education pays attention to practical operation, but ignores the cultivation of oral expression ability. Many students practice a good skill, but in the difficulties in communication with people, outstanding performance for the class to answer questions when small voice, unclear expression, logical confusion, individual students even dare not to speak.

c. Text analysis: systematic analysis and interpretation of books, articles, reports, logs, interview records and other documents, text materials to understand the topics, views and patterns (Merriam, 2009). Learn various theories about "self-determination theory", "speech", "micro-speech before class" and "exercise oral expression" at home and abroad, and record classical theories and detailed examples.

d. Focus group discussion: Organize a group of participants to group discussion to obtain their views, experiences and opinions. This approach helps to reveal the interactions and common theme among different participants (Morse & Richards, 2002). For example: In the experimental comparison of two classes, the Chinese activity of "I'll give you three minutes, micro-speech before class" can be held at the same time, but different themes can be distinguished. Class 14 of the E-Commerce Major held a sales micro-speech related to Taobao's sales of "micro-speech before class, show off your treasures"; 13 Chinese and American class of the School of International Education carried out an elective "micro-speech before class, appreciate poetry" A micro-speech on poetry appreciation in the textbook "Tang Poetry and Song Ci Selected Works". Conduct group discussions on the focus of the presentation topic.

e. Case study: In-depth study of one or a few individuals, organizations, or events, by collecting and analyzing multiple data sources (such as interviews, observations, texts, etc.) to obtain a comprehensive understanding (Silverman, 2016). For example, one student said, " I used to be poor before class. I wanted to sleep or was in a bad mood and wanted to be distracted. But after the "before the class micro-speech" warm atmosphere induction, like a shot of stimulant, mood immediately excited, so that I can conscientiously finish each Chinese class."

f. Investigator reflection: Investigators can enhance their understanding of the research topic through self-reflection and recording of personal observations, experiences and subjective feelings during the study (Charmaz, 2014). Under the guidance of self-determination theory, theory with practice, carry out micro-speech before class, combined with their own classroom practice, teachers and students participate in joint evaluation and analysis, and record and reflect on whether students' oral expression ability has been improved.

Results

Under the guidance of self-determination theory, the teaching activities of micro-speech before class should be carried out to increase students' autonomy of learning by giving them the right to choose

and the opportunity to participate in learning, so as to improve their learning motivation and investment. Micro-speech before class can stimulate students' curiosity and interest in the upcoming learning, and let them actively participate in the learning process. Students can also share their views, experiences and questions to promote the positive interaction of the classroom atmosphere and enhance the learning effect.

In addition, when preparing and conducting micro-speech before class, students find that it is necessary to improve their oral skills and speaking skills if they want to organize and express their ideas independently. Students need to think, summarize and sort out the content of their speech. This process of active thinking and expression helps students to deeply understand and consolidate the knowledge they have learned, and improve their ability to remember and apply the knowledge.

Therefore, the micro-speech before class encourages students to take the initiative to obtain and organize learning materials, and express their own views and thinking. This is beneficial to cultivating students' learning ability, critical thinking and communication skills. This experience of autonomous learning can strengthen students' positive attitude and initiative towards learning, and lay the foundation for their future learning and growth (Wang & Suo, 2020).

Discussion

Taking Nanjing Business Branch of Jiangsu United Vocational and Technical College as an example, Teaching activities for micro-speech before class in majors such as tourism and cooking are based on the guidance of self-determination theory. Each semester can be regarded as an independent cycle according to students' interests, career needs, and current hot topics. The content, form, and requirements of micro-speech before class between semesters need to be further improved.

a. First Semester: Self-Confidence Cultivation and Vision Expansion

For students who have just entered a vocational college, practicing courage and cultivating confidence are the basic goals of the first semester. At the same time, through the collection, sorting, and refining information, with the help of speech to achieve the purpose of expanding vision. Therefore, the micro-speech before class in the first semester was conducted by the topic designated by the teacher. In this stage of the speech process, the teacher's demonstration, guidance, comments and encouragement are very important.

b. Second Semester: Information Screening and Vision Re-Expansion

At this stage, teachers will no longer provide specific speech topics and content points, instead of the sequential topic of "major international and domestic current affairs in this week", so that students can fully read more current political news and further expand their vision. And screen out big news that is valuable within a week for your speech, while making sure the audience is interested and understands it.

c. Third Semester: Field Investigation and Humanity

In this stage, humanistic content can be added to join the excellent traditional Chinese culture, and the choice of field investigation can be added in the way of information screening and acquisition, so as to guide students to integrate network information and field investigation. At this stage, the speech still adopts a series of themes, but the content is no longer current politics, replaced by more humanistic topics with strong regional characteristics, such as "place name culture", "food story of a place" and so on.

d. Fourth Semester: Workplace Inspirational and Independent Thinking

In order to help students, complete the workplace role transformation, the topic sequence can be adjusted to "workplace inspirational story". In the speech link setting, can also increase the on-site defense. Specifically, when the speech is over, the audience can ask two impromptu questions about the content of the speech. This requires students to be fully prepared before the speech, and the randomness of on-site questions, and cultivate students to independent thinking, innovative thinking is of great benefit.

The systematic, continuous and advanced teaching activities of "micro-speech before class" in the four semesters have greatly met the basic psychological needs of students 'autonomy, competence and relatedness, stimulated the enthusiasm of students' autonomy to participate in learning and social interaction, and indeed exercised students' oral expression.

Conclusions

By combining the theory of self-determination with the micro-speech before class, it is found that the internal motivation is generated when students meet their basic psychological needs, which is really conducive to the improvement of oral expression ability, and also greatly improves the learning participation and social participation.

a. To Meet the Needs of Students' Autonomy: to Stimulate the Internal Motivation of Oral Chinese Training

The sense of autonomy refers to the psychological satisfaction needs of when people feel that they can fully listen to their own wishes during the task process, without being influenced by the external environment and other factors (Ryan & Frederick, 1997). A sense of autonomy is not equivalent to laissez-faire, but it is an internal motivation to engage individuals in activities. Supporting a sense of autonomy means providing choices from their perspective and forming a meaningful and reasonable attribution when the choice is impossible. The micro-speech before the Chinese class makes the students always in the state of active participation and active activities. The lively form of speech into Chinese classroom teaching, to create a relaxed and harmonious learning atmosphere, the teacher "teaching in fun", students "learning in fun", so as to improve the learning efficiency of Chinese teaching.

b. To Meet the Competent Needs of Students: to Design Reasonable and Systematic Teaching Activities

Competence is similar to self-efficacy, appearing in situations where individuals feel the effectiveness of self-behavior. It can arise when individuals undertake and master challenging tasks. However, some studies have shown that many students' self-efficacy in teaching situations (Li, 2021). Supporting competence means encouraging confidence in overcoming difficulties and giving flexible monitoring and timely feedback. Teachers need to design a reasonable and systematic teaching activities of micro-speech before Chinese class, and adopt a step-by-step phased theme design and implementation strategy. Then, through such micro-speech training, students realize that only by expanding the scope of reading, expanding the depth of reading, reading more books, reading books, accumulating more and writing more, can they complete the speech with high quality and quickly improve their oral expression ability.

c. To Meet the Relatedness Needs of Students: to Establish Democratic and Safe Interpersonal Relations

The sense of relatedness mainly occurs in the process of individuals feeling interacting with and understanding others, including teamwork and interpersonal social (Ryan, Sheldon, Kasser & Deci, 1996). Supporting a sense of relatedness in the teacher-student relationship means accepting students and ignoring their feelings of self-esteem and anxiety. Therefore, when evaluating students' speeches, teachers should first make basic evaluation rules to ensure the quality of micro-speech before class. Then, on the basis of these rules, the process evaluation should be the main, and the mechanism of multi-subject evaluation of the speaker himself, teachers and classmates as the audience should be established to assist the incentive evaluation. Practice has proved that the evaluation mechanism with equal attention to process and result can evaluate students more comprehensively, more conducive to the development of students' potential, and more conducive to the establishment of democratic and safe interpersonal relationship between teachers, students and students.

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A STUDY ON THE APPLICATION OF "STUDY PASS+BOPPPS" BLENDED TEACHING - TAKING THE OBJECT-ORIENTED PROGRAMMING COURSE OF SHANDONG UNIVERSITY OF ENGINEERING AND VOCATIONAL TECHNOLOGY AS AN EXAMPLE

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Abstract: With the advancement of education informatization, blended teaching, which integrates online network resources and offline face-to-face advantages, gradually enters the classroom, and promotes the reform of the new curriculum. This study takes the Object-Oriented Programming course of Shandong Engineering Vocational and Technical University as an example, and selects two classes of Software Technology majoring in grade 2022 with a total of 99 students as the research object. Using quantitative research methods, we carry out a study based on the "Study Pass + BOPPPS" teaching mode, blended teaching, the concepts of Learning Pass, and the theories of Constructivism and Humanism based on the study of the "Study Pass + BOPPPS" teaching model, blended teaching, Learning Pass related concepts, and theories of Constructivism and Humanism. Based on learning the concepts of BOPPPS, Study Pass, constructivism theory and human-centeredness theory, we carried out a research on the application of "Study Pass + BOPPPS" blended teaching mode in the course of Object-Oriented Programming, and evaluated the teaching effect.

Through teaching practice, it is verified that the blended teaching of "Study Pass + BOPPPS" can significantly improve students' academic performance, and has a significant positive impact on enhancing students' interest, initiative, participation and sense of efficacy in learning. The obvious improvement of teaching effect provides a basis for the teaching reform of Object-Oriented Programming, and will also provide a certain reference and guidance for the exploration of the teaching reform of other computer courses.

Keywords: Learning Access, BOPPPS, Blended Learning, Object-Oriented Programming

Introduction

Background of the Study

The rapid development of modern information technology continues to promote the informatization process of education and teaching, since July 2015, the State Council promulgated the

"on actively promoting the "Internet +" action of the guiding opinions", the continuous innovation of the Internet technology and the field of education to carry out a multi-faceted in-depth fusion. 2019 March, the Ministry of Education issued the main points of education informatization and network security work in 2019", put forward to accelerate the transformation and upgrading of education informatization, actively promote the "Internet + education", adhere to the high-quality development, with education informatization to support and lead the modernization of education (Zhang et al., 2023).

The rise of the "Internet 10 education" era has changed the traditional education concepts, education methods and teaching modes in colleges and universities. Accompanied by the innovative development of information technology in the field of education, "online + offline" blended teaching is widely used, study pass is a set of reading, scientific research, learning, communication and management of the use of modern integrated mobile service terminals, but also in recent years, teachers and students of colleges and universities to carry out blended teaching of a favorable platform (Li et al., 2023).

The development of blended teaching requires not only a good platform, but also the integration of advanced teaching models into a quality platform. BOPPPS model is one of the teaching models that have been introduced and implemented in mainland China in recent years, which is based on the theory of constructivism and communicative approach, emphasizes the student-centeredness in the teaching process, and effectively improves the students' participation in the classroom teaching Comprehensive analysis (Xie, 2021).

In summary, this study utilizes Study Pass to fully release the advantages of BOPPPS teaching mode in online teaching and offline classroom. Under the current background of high smartphone penetration rate, the practical research on the construction and application of the blended teaching mode of "Learning Channel + BOPPPS" is expected to provide some reference for the development of blended teaching in computer courses in vocational colleges and universities (Zhang, 2021).

Research Problems

This study is practical research on the construction and application of the blended teaching model of "Study Pass + BOPPPS", which is expected to provide some reference for the development of blended teaching in computer courses in vocational colleges and universities. Therefore, the research questions of this paper are as follows:

(1) Take the course of Object-Oriented Programming as an example, compare the teaching effect of the blended teaching mode of "Study Pass + BOPPPS" with that of the traditional face-to-face classroom, and investigate whether the former can significantly improve students' performance.

(2) To investigate whether the blended teaching mode of "Learning Channel + BOPPPS" can significantly enhance students' learning interest, initiative, participation and sense of efficacy.

Scope of the Study

This study takes Object Oriented Programming (OOP) course of Shandong Engineering

Vocational and Technical University as an example, and selects two classes of Software Technology majoring in 2022 with total 99 students as the research object, of which 50 students in 2022 Software 1 class as the experimental class, and 49 students in 2022 Software 2 class as the control class, and carries out the teaching experiment for one semester. During the teaching process, the teachers, teaching materials, teaching schedule, total class hours and test papers of the two classes are the same, and the experimental class adopts the BOPPPS teaching mode based on Learning Channel, while the control class adopts the existing teaching mode. Through questionnaires, we analyzed and compared the differences in students' interest in learning, initiative, participation and efficacy, and students' performance between the two teaching modes.

Significance of the Study

Theoretical significance: This study compiles and summarizes the domestic and international research progress of "Learning Channel + BOPPPS" blended teaching, absorbs and draws on the existing research theories of the predecessors, and combines the characteristics of the Learning Channel platform and the advantages of the BOPPPS teaching mode to build a blended teaching mode based on "Study Pass + BOPPPS" to enrich the design and research of the classroom teaching mode, from the perspective of the learning situation of the senior computer science students. The blended teaching mode of "Learning Channel + BOPPPS" is designed and researched to enrich the classroom teaching mode. Therefore, this study complements and enriches the existing literature in terms of theoretical research and model design.

Practical significance: This study is based on the blended teaching model design of "Learning Channel + BOPPPS", and applies it to the classroom teaching of senior computer science majors in practice. Two classes were taught in traditional teaching and blended teaching respectively, and data were collected through tests and questionnaires after the experiments to analyze the effect of blended teaching and put forward corresponding improvement measures. For the students, the data feedback such as tests and questionnaires can help to promote the students' understanding of their own learning ability and reflect on their learning; for the teachers, the practical application of "Learning Link + BOPPPS" blended teaching mode can provide some references and lessons for the teaching reform of the teachers of higher vocational computer majors. For the school, it is conducive to promoting the reform of its teaching mode to improve the quality of teaching and the level of informationized teaching.

Research Objectives

Against the background of the reform of higher vocational education and the increasingly significant limitations of traditional classroom teaching, this study takes Object-Oriented Programming as an example to design a blended teaching model based on Study Pass + BOPPPS, and applies it to the classroom teaching of higher vocational computer science majors. The main objectives of this study are: (1) To study the effect of improving students' academic performance through the practical

application of the blended teaching model based on "Study Pass + BOPPPS"; (2) To explore the effects of the practical application of the blended teaching model based on Study Pass + BOPPPS in enhancing students' interest in learning, initiative, participation and sense of efficacy.

Literature Review

Learning Access

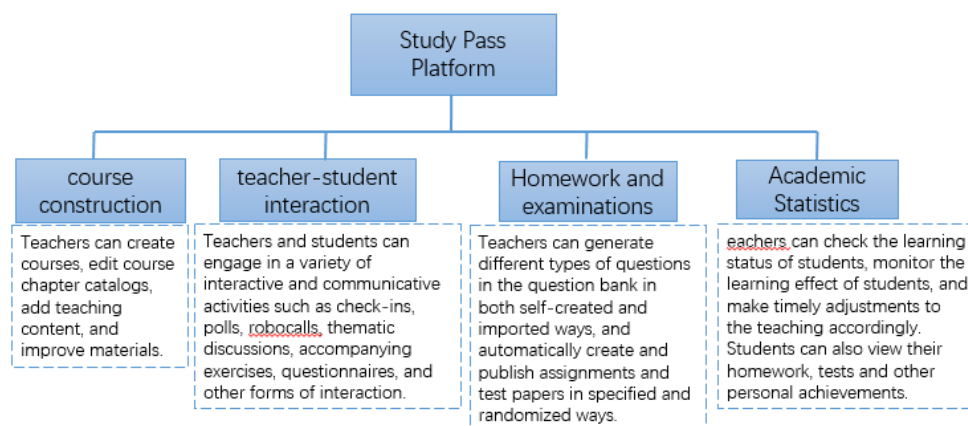
Super Star Learning Access is a professional platform for mobile learning for smartphones, tablets and other terminals (Zhu, 2021). The platform includes teacher side and student side. As a professional auxiliary teaching platform, its function is mainly manifested in 4 aspects.

(1) Course construction. Teachers can create courses and share the course portal to students with invitation code and QR code, which is convenient for students to join their respective classes; they can edit the course chapter directory and enrich the teaching content by adding audio/video, chapter quizzes, discussions, pictures, documents, etc. to achieve personalized teaching, etc.

(2) Teacher-student interaction. Teachers and students can carry out a variety of forms of interaction and communication activities such as check-in, voting, quiz, thematic discussions, questionnaires, etc.; fixed, self-selected and other ways to establish groups to complete the group task, and in accordance with the teacher's evaluation, inter-group evaluation, self-assessment and other ways to carry out the assessment; you can also launch the course-related topics, to start the discussion.

(3) Assignments and examinations. Teachers can use self-built and import two ways to generate different types of questions in the database, to specify and randomize the way to automatically create assignments and test papers and release.

(4) Learning statistics. Teachers can view the detailed records of students' chapter learning times, the number of times they participate in various classroom activities, the completeness of watching videos and other related data, and generate personal learning reports; students can view the assignments, tests and other personal achievements, to find their own deficiencies in their ordinary learning, and stimulate the desire for active learning.



Picture 1: Study Pass Platform Main Functions Interface Diagram

BOPPPS

The BOPPPS teaching model originated from the Canadian Teachers' Skills Training Workshop (ISW) and has been adopted in more than 30 countries and implemented in more than 100 universities and training institutions around the world (Sun et al., 2019).

The BOPPPS teaching model consists of six modules: introduction (B), instructional objectives (O), pre-test (P), participatory learning (P), post-test (P), and summarization (S). These six modules build a coherent, effective and complete teaching process(Jiang et al., 2021).

B (Bridge-in) course introduction: this stage the teacher introduces the learning content through various methods to attract students' attention.

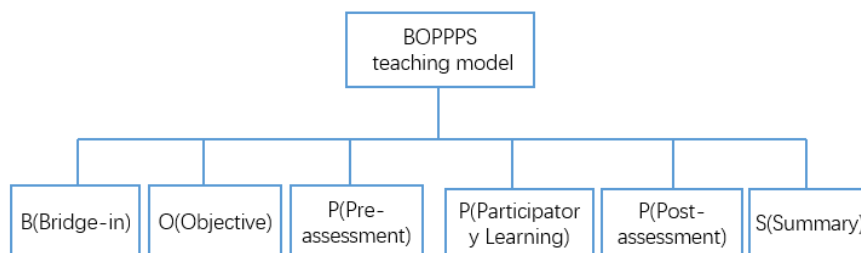
O (Objective) learning objectives: to clarify the teaching objectives, so that the students are clear about the level of knowledge and competence that should be achieved after completing the course learning (Wang, 2020).

P (P(Pre-assessment) pre-test: mainly learning survey, through the survey, test, etc. to understand the students' pre-course knowledge reserves, for the subsequent pre-course task setting and classroom teaching to provide a basis.

P (Participatory Learning) participatory learning: teachers according to the teaching objectives to design a number of teaching activities, so that students actively participate in this is the core phase of the BOPPPS model.

P (Post-assessment): it is mainly to test the learning effect and examine the students' mastery of knowledge.

S (Summary): it is to reflect together and provide feedback according to the teaching contents (Lv, 2021). The following is the flow chart of BOPPPS teaching model.



Picture 2: BOPPPS Instructional Model Flowchart

Blended Learning

Blended learning is a teaching method that combines traditional offline teaching with online teaching, which has become quite popular in recent years in the education sector. It utilizes modern information technology and combines the advantages of traditional offline teaching and online teaching.

Blended teaching process, highlighting the student-centered, offline classroom teaching, the teacher to impart knowledge, effective guidance, supervision of students in the classroom learning process, online using information technology means to design flexible and diverse teaching activities, stimulate student participation, motivation, autonomy. The blended teaching mode can obtain better teaching experience and learning effect (Cheng, 2023).

Object-Oriented Programming

Object-Oriented Programming is an important professional course for computer science majors, which is in a basic position in the whole course system, providing the basic syntax of programming, object-oriented thinking and programming techniques. The course emphasizes the basic, practical, suitable for cultivating students' basic knowledge, so that students in the programming methodology, language and tools to be rigorous, systematic training, to cultivate students more systematic, more rigorous analysis of the problem and problem-solving thinking ability, and be able to skillfully use the computer to solve practical problems, laying a foundation for the subsequent professional courses.

Constructivist Learning Theory

Constructivist learning theory emphasizes the "dominant-subject combination", in the process of education and teaching, the teacher is the dominant and the learner is the subject (Guo, 2021). According to the constructivist learning theory, teachers should have the attitude of lifelong learning when teaching with the Learning Commons, constantly update their knowledge reserve and improve their teaching ability, especially in the current information age, because knowledge is constantly updated and always exists (Bao, 2022).

Humanistic Learning Theory

Humanistic learning theory originated in the United States, with Maslow and Rogers as the main representatives, that students are the main body of learning in classroom teaching, and fully show students' creativity (Zhao, 2022). Humanistic learning theory points out that the goal of education is to educate people, the target of education should have self-awareness, and the goal of cultivation should be a "complete human being". Learners realize their self-worth in independent learning and become fully developed people in the process of education and teaching (Guo, 2021).

Methodology

This study adopts a quantitative research method to apply the blended teaching mode of "Study Pass + BOPPPS" to the course of "Object-Oriented Programming" in Shandong Engineering Vocational and Technical University. A total of 99 students in two classes of 2022 majoring in software technology were selected as the research objects, of which 50 students in 2022 software class 1 were taken as the experimental class and 49 students in 2022 software class 2 were taken as the control class, and the teaching experiment lasted for one semester. The questionnaire survey was used to collect data and design the "Learning Channel + BOPPPS" blended teaching mode; in the experiment, the same teacher

carried out the teaching experiment on the same teaching content, the control class carried out offline traditional lectures, and the experimental class implemented the "Learning Channel + BOPPPS" blended teaching mode. In the experiment, the same teacher carries out teaching experiments on the same teaching contents, the control class carries out offline traditional lectures, and the experimental class implements the "Study Pass + BOPPPS" blended teaching mode; after the experiment, we analyze the results of the post-test and the questionnaire data, and verify the effects of the "Study Pass + BOPPPS" blended teaching mode in improving students' interest in learning, their initiative, their sense of participation and efficacy, as well as students' performance.

Samples and Sampling

This study takes the Object-Oriented Programming course of Shandong Engineering Vocational and Technical University as an example, and selects two classes of Software Technology majoring in 2022 with a total of 99 students as the research object, of which 50 students in Software 1 class of 2022 as the experimental class, and 49 students in Software 2 class of 2022 as the control class, and carries out a semester-long teaching experiment. At the end of the semester, the teachers used the "Questionnaire" function of Learning Channel to conduct a questionnaire survey on 50 students in the experimental class, 50 questionnaires were distributed and 50 questionnaires were recovered, with a recovery rate and validity rate of 100%.

Questionnaire Design

The purpose of this questionnaire survey is to verify the difference in teaching effect between the blended teaching mode of "Study Pass + BOPPPS" and the traditional face-to-face classroom, whether it can improve students' performance; whether it can enhance students' interest in learning, initiative, sense of participation and sense of efficacy. In order to have a more comprehensive and objective understanding of the problems existing in the existing teaching mode, this study followed the principles of objectivity and science when designing the questionnaire. Carefully analyzing and studying the problems in the existing teaching mode and setting questions scientifically will provide a factual reference basis for the next step to improve and optimize the "Learning Channel + BOPPPS" blended teaching. The questionnaire survey was conducted anonymously to ensure that the results are true and effective.

Data Analysis

After the questionnaire survey was completed, the questionnaire was analyzed. Through the analysis of the pre-test scores and post-test scores of the control and experimental classes, it can be seen that the application of blended teaching based on "Learning Channel + BOPPPS" helps to improve students' academic performance and plays a positive role in enhancing students' interest in learning, initiative, sense of participation and sense of efficacy. Classroom teaching is designed according to the six links in the BOPPPS teaching model, which makes the allocation of teaching time more scientific and the arrangement of teaching content more reasonable, and truly realizes the teaching concept of

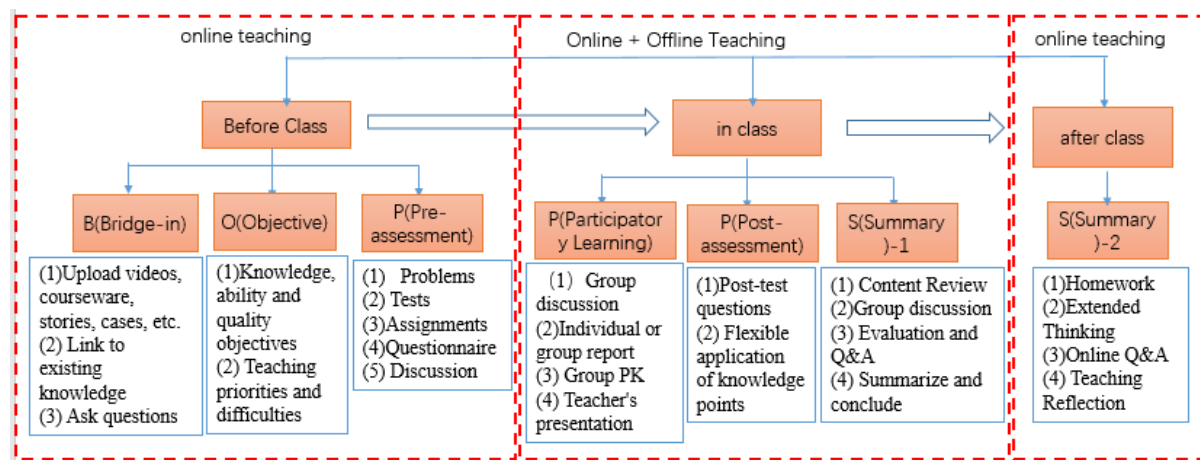
"student-centered"; with the help of Learning Channel's functions of activities, statistics, information, homework, group tasks, discussions and other information technology teaching, it breaks the limitations of teaching time and space, and helps to improve students' learning performance and enhance their interest, participation and effectiveness. It breaks the limitation of teaching time and space, realizes the sharing of teaching resources, promotes the interaction between teachers and students, and enhances students' interest in learning, initiative, participation and effectiveness.

Results

1. Design and implementation of blended learning "Learning Link + BOPPPS"

(1) Blended Learning Design of Learning Link + BOPPPS

The blended teaching of "Study Pass + BOPPPS" emphasizes the combination of in-class and out-of-class, the integration of online and offline, the student-centered approach, the full mobilization of students' enthusiasm and participation, the interaction and collaboration between students and teachers, and the development of multidimensional learning activities, adaptive learning and deep learning. The design of the model is shown in the figure below.



Picture 3: Research on Blended Teaching Model Based on "Study Pass +BOPPPS"

(2) Implementation of "Learning Channel + BOPPPS" Blended Teaching - An Example of Selection Structure Knowledge Points in Object-Oriented Programming

Pre-Lesson (Online Teaching):

B (Bridge-in)-Introduction. The teacher uploads the teaching video and other materials to Learning Pass in advance according to the teaching content of this class. Open with case teaching method or task teaching method, Case: Doudou didn't do well in the last exam, and Dad said it was mainly because Doudou had played too many games on his cell phone recently. Dad and Doudou agreed that if they scored 90 points or more on this exam, they could play games for 20 minutes a day. If he

scores less than 90, he will suspend playing games for a week. Please design a program that inputs Doudou's test scores to see if he can still play the game. The task-driven approach is designed to stimulate students' interest in the upcoming lesson and to prepare them for the introduction of the new lesson.

O (Objectives)-Objectives. Teachers distribute information through the study pass, so that students understand the teaching objectives of this lesson, teaching key points, clear learning direction. Knowledge Objectives: To master the design method of selection structure; to master the structure and usage of single branch if statement; double branch if statement and multi-branch if statement. Ability Objective: Students will be able to use the idea of program to solve practical problems. Quality Objective: To cultivate students' ability to find problems, analyze problems, solve problems and sense of inquiry.

P (Pre-assessment)-Pre-test. Teachers release the pre-assessment test in Learning Pass, which can use the discussion method and case teaching method. Students study the video and related discussions in advance, and the test questions test the effect of students' pre-assessment, while building a theoretical foundation for the development of the task. Through open-ended discussion, we can understand students' knowledge mastery, and help teachers and students to organize the knowledge points of this lesson together.

In-class (offline teaching):

P (Participatory Learning)-Participatory Learning. Through the integrated use of multiple teaching methods, students are assisted to understand the knowledge network. Teacher combined with the case, using the learning pass grouping, guiding the students in each group to realize the project with single branch if statement, double branch if statement programming respectively. After group discussion, members summarize and share ideas, notes on code writing, the whole process of the teacher's role is to guide the students to think actively, and jointly explore ways to solve the problem.

P (Post-assessment)-Post-assessment. Teaching methods: Lecture and discussion. Teacher classroom test questions, through the test questions to analyze the students' understanding and mastery of the content, to find out the "blind spot" in the teaching, and to test the degree of achievement of the teaching objectives.

S (Summary-1)-Summary 1. You can take the group discussion and other ways, teachers and students together to summarize the key points of the class, as well as in the programming problems, guiding students to improve their own programming ideas, deepen the understanding of the knowledge through the case, to complete the project task.

After the lesson (online teaching):

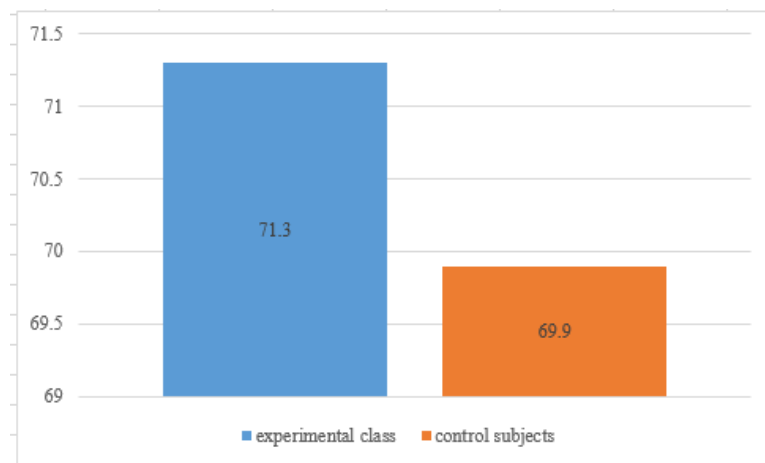
S (Summary-2)-Summary 2. After the lesson, the teacher in the learning pass issued this lesson related knowledge points to think about the task of expanding, guiding the students to consolidate the content of this lesson, in addition, the teacher according to the students in the whole teaching process

of the feedback, timely revision of the teaching design for the smooth implementation of the subsequent work of the teaching and learning experience (Fu, 2021).

2. Analysis of the effect of blended teaching of "Study Pass + BOPPPS" based on performance comparison

(1) Analysis of pre-test scores

First of all, the teacher used the traditional teaching method to teach the first three projects of Object-Oriented Programming to the students in two classes. Then, a unified midterm examination was held, which covered the contents of Project 1 to Project 3 of Object-Oriented Programming. Therefore, in this study, the midterm exam was used as a pre-laboratory test. The midterm exam questions include single choice, multiple choice, judgment, short answer, and case study. A comparison of the average scores of the two classes on the midterm exam is shown in the following figure.

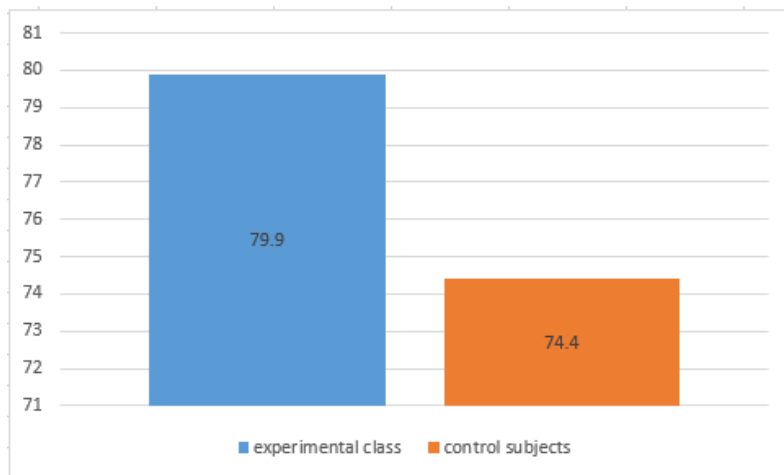


Picture 4: Pre-test Score Analysis

As can be seen from the statistical results of the above figure before the experiment, the difference between the average scores of the two classes before the experiment is small, and the experimental class is higher than the control class by 1.4 points, which indicates that the two classes have comparable learning levels.

(2) Post-test analysis

For the post-test, the content of the course was chosen from Project 4 to Project 6 of Object-Oriented Programming, and traditional teaching was adopted in the control class, while the experimental class carried out the hybrid teaching of "Learning Channel + BOPPPS". Secondly, we ensure that the teaching progress of the two classes is the same, and at the end of the course, we use the same test paper for testing. Finally, the results of the post-test were statistically analyzed, as shown in the figure below.

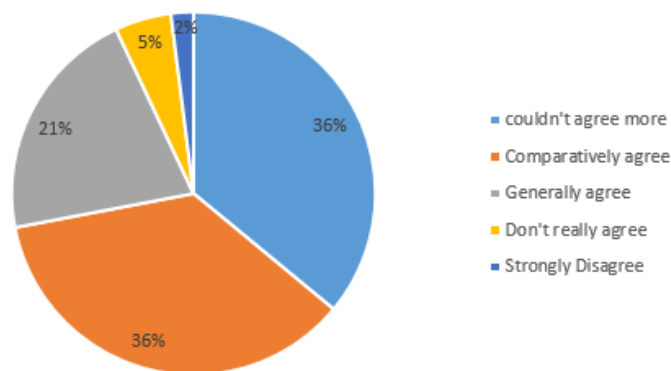


Picture 5: Post Test Score Analysis

As can be seen from the statistical results in the above figure, the average scores of the two classes are 5.5 points higher than those of the control class after the two classes have studied from Project 4 to Project 6, which is comparable to the results of the pre-test experiment, indicating that the application of the blended teaching of "Study Pass + BOPPPS" helps to improve the academic performance.

3. Analysis of the effectiveness of the "Study Pass + BOPPPS" blended teaching experiment based on questionnaires - it can significantly increase students' interest in learning, initiative, sense of participation and sense of efficacy

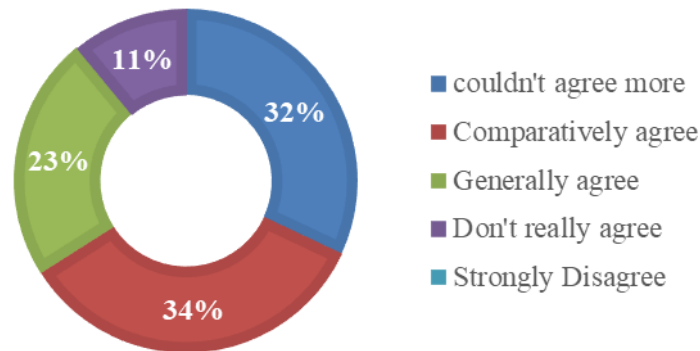
(1) Survey statistics on learning interests



Picture 6: Survey Statistics on Interest in Learning

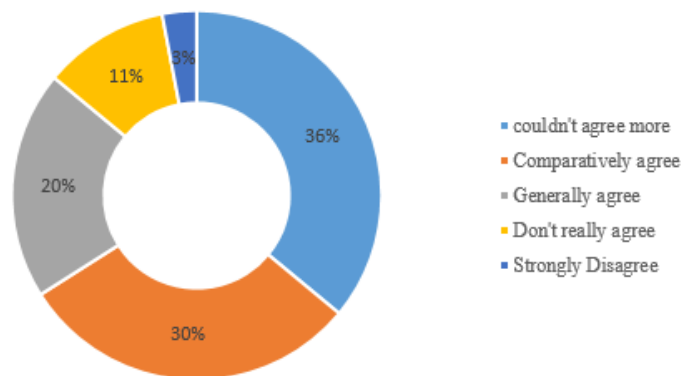
By designing the content of the questionnaire: topic 1: It has stimulated my interest in learning Object Oriented Programming. By analyzing the questionnaire, it was concluded that 36% of the students each strongly agreed and relatively agreed that blended teaching could stimulate their learning interest. Therefore, the teaching mode can promote students' interest.

(2) Survey statistics on learning initiative



Picture 7: Survey Statistics on Learning Initiative

Questionnaire 2: I can take the initiative to complete the learning tasks assigned by the teacher, through the analysis of the results: 34% and 32% of the students said that they can take the initiative to complete the learning tasks, of which 23% and 11% of the students are in the state of passively completing or not completing the tasks.



Picture 8: Survey Statistics on Learning Initiative

Question 3: After class, I will take the initiative to do revision work. The analysis shows that 36% and 30% of the students will take the initiative to review after class, while 20% and 14% of the students are in the state of passive review or no review. Generally speaking, the blended teaching mode of "Study Pass + BOPPPS" can improve the initiative of the majority of students in learning.

(3) Survey Statistics on Learning Involvement

With regard to the survey on learning participation, it was analyzed that 36%, 30% and 20% of the students strongly agreed, somewhat agreed and generally agreed that they would actively think and participate in teaching and learning activities in the classroom, respectively. As for the question "I do not doze off in class", 38% and 41% of the students strongly agreed and somewhat agreed respectively.

This shows that students' participation in the classroom is higher than before the experiment, and more than half of the students can actively participate in the classroom.

(4) Survey Statistics on Learning Efficacy

Regarding the survey on learning efficacy, it can be seen from the analysis that 29% of the students expressed strong agreement and 38% of the students expressed comparative agreement with the statement "In the classroom, the duration of my concentration time has been improved", i.e., the students who improved their concentration time by applying the blended learning method accounted for two-thirds of the students, which indicates that the teaching method can improve students' concentration to a certain extent. Regarding the question of "the teaching method has improved my self-learning ability", 21% of the students strongly agreed and 29% of the students relatively agreed, i.e., half of the students thought that the blended teaching mode of "Study Pass BOPPPS" had improved their own self-learning ability. This means that half of the students think that the blended teaching mode of "Study Pass + BOPPPS" has improved their self-learning ability. These two questions can reflect that the blended teaching method can improve students' self-efficacy to a certain extent.

Discussion

This paper takes the Object-Oriented Programming course as an example, and constructs the "Learning Pass + BOPPPS" blended teaching mode applicable to the teaching of the Object-Oriented Programming course in Shandong Engineering Vocational and Technical University; and evaluates the teaching effect through post-test and questionnaire survey at the end of the course. The blended teaching model has improved students' academic performance, and also has significant effects on students' learning interest, initiative, participation and sense of efficacy. Therefore, the practical application of the "Learning Channel + BOPPPS" blended teaching mode can provide some references and lessons for teachers of computer science majors to carry out teaching reforms, and also promote teachers to pay attention to new and high-quality mobile teaching platforms, and try to apply blended teaching to other courses of computer science majors in the practice of teaching. It is helpful to promote the reform of teaching mode to improve the quality of teaching and the level of informatization teaching.

Conclusions

This study constructs a "Learning Channel + BOPPPS" blended teaching mode applicable to the teaching of "Object-Oriented Programming" course in Shandong Engineering Vocational and Technical University; through the design, practice and effect analysis of "Learning Channel + BOPPPS" blended teaching, the following conclusions are drawn: "The blended teaching model of "Learning Channel + BOPPPS" is suitable for the teaching of "Object-oriented Programming" course in Shandong Engineering Vocational and Technical University. By analyzing the design, practice and effect of "Learning Channel + BOPPPS" blended teaching, the following conclusions are drawn:

(1) The blended teaching model of "Study Pass + BOPPPS" can significantly improve students' academic performance.

This paper analyzes the pre-test scores and post-test scores of the control class and the experimental class, and shows that the application of blended teaching based on Study Pass + BOPPPS can help to improve students' academic performance.

(2) The blended teaching mode of "Study Pass + BOPPPS" can significantly enhance students' interest in learning, initiative, participation and sense of efficacy.

By combining the BOPPPS teaching mode with Study Pass, we have established the hybrid teaching mode of "Study Pass + BOPPPS" and applied it to the teaching of the course "Object-Oriented Programming". The classroom truly realizes the teaching concept of "student-centered", and carries out three stages of teaching before, during and after the class with the functions of activity, statistics, data, homework, group task and discussion of Study Pass, realizes the sharing of teaching resources, promotes the communication between teachers and students, and enhances the students' interest in learning, initiative, sense of participation and sense of efficacy. The sharing of teaching resources can promote the communication between teachers and students and enhance students' interest in learning, initiative, participation and effectiveness.

With the rapid change of the information age, college teachers' educational concepts, educational methods and teaching modes should be constantly adapted to the development of the times, and college teachers should improve their personal informatization ability, constantly update their teaching modes, and combine with the needs of their positions to cultivate newcomers of the times. How to innovate the teaching mode and improve the efficiency of classroom teaching needs to be explored by scholars from all over the world.

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RESEARCH ON THE INFLUENCE FACTORS OF FLIPPED CLASSROOM TEACHING MODE ON THE CLASS PARTICIPATION OF LOGISTICS MANAGEMENT MAJORS-TAKING THE TEACHING OF FORKLIFT SKILLS IN NANJING COMMERCIAL COLLEGE AS AN EXAMPLE

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Abstract: With the development of information technology, the flipped classroom teaching model has gradually become the leader of new teaching methods in today's education world. Flipped classroom teaching mode has changed the process of traditional classroom teaching and created a massive wave in the education world. Flipped classroom teaching mode is gradually accepted by many frontline teachers and applied in daily instruction.

The research purpose of this paper is to analyze the factors affecting the classroom participation of logistics management students under the flipped classroom teaching mode, take the teaching of forklift skills in logistics majors as an example, and finally provide suggestions for improving the classroom participation in the flipped classroom of logistics management majors. The research method of this paper is a quantitative research method through the questionnaire survey of 403 students of forklift skills instruction in logistics management major in Nanjing Commercial College, and the statistical analysis of reliability, validity, and multiple regression of the sample data by SPSS.

The analysis shows that classroom questioning, group discussion, pre-class self-study, and learning interest significantly positively affect students' classroom participation in the flipped classroom environment of teaching forklift skills in logistics management. Therefore, by improving effective classroom questioning, reasonably assigning groups for group discussion, developing good habits of self-study before class, stimulating students' learning interest appropriately, realizing that the learner becomes the center of learning, and improving the way of communication between the teacher and the learner, there is a positive impact on the classroom participation of logistics management majors in the flipped classroom.

Keywords: Flipped Classroom, Logistics Management Program, Classroom Participation, Influencing Factors

Introduction

Research Background

Flipped classroom teaching mode is a product of the development of Internet information technology, "online + offline" teaching mode is the combination of education and the Internet, breaking time and space limitations. The emergence of the flipped classroom provides students with a good learning and communication platform, from "teacher-centered" to "student-centered" change (O'Flaherty & Phillips, 2015). The development of the flipped classroom teaching mode gives students more personalized learning experiences. The teaching mode of the flipped classroom is conducive to cultivating students' independent problem-solving ability and improving their ability to solidarity and mutual help. Logistics management majors focus on practical operation, and talent cultivation emphasizes participation in classroom activities. Innovative thinking and practical ability are the important contents of talent cultivation for logistics management majors. Flipped classroom teaching mode fits the goal of talent cultivation for logistics management majors.

Nanjing Commercial College is a brand college of innovative management in China and one of the top ten innovative colleges in China's education in the new century. Nanjing Commercial College focuses on improving the quality of education, and its logistics management major has been awarded the honorary title of "Brand Major of Jiangsu Province." Since the program's opening in 2011, the Logistics Department has achieved outstanding results and has excelled in national and provincial skill competitions. In improving the quality of talent training and enhancing students' professionalism, the flipped classroom model has been widely used in the talent training process of logistics management majors at Nanjing Commercial College.

Research Problems

Forklift skills learning is a compulsory course for logistics students, and practical teaching is often dynamic and complex. Many logistics classrooms use flipped classroom teaching methods to achieve initial results (O'Flaherty & Phillips, 2015). The student's classroom participation has improved after using the flipped classroom teaching method, but it still cannot reach the ideal effect. Therefore, this paper investigates and analyzes the forklift skills teaching classrooms in logistics management. The main research questions include: What are factors influence students' classroom participation in the flipped classroom of teaching forklift skills for logistics management majors? How to improve students' classroom participation in the flipped classroom of logistics management majors?

Research Significance

There needs to be more research on classroom participation in the flipped classroom environment, and there are fewer studies on classroom participation for logistics management majors. This study uses a questionnaire survey to obtain first-hand information on the class participation of students in the forklift skills course of logistics management majors in a flipped classroom environment, to provide the most favorable scientific basis for improving the current students' class participation, and

to promote the study of students' class participation.

Through the study of the influencing factors and the current situation of the flipped classroom, the level of learning interaction between teachers and students can be enhanced more effectively, more practical operational suggestions can be provided for the logistics management profession, and the teaching level of teachers can also be improved more effectively. Effectively improve students' learning interest and students' self-learning ability. Teachers take into account the individual differences between students in teaching. It helps teachers easily realize the teaching mode switching in different teaching situations. The use and development of flipped classroom teaching is of great practical significance.

Research Objectives

Flipped classroom teaching mode is widely used in the process of talent cultivation. The application of flipped classroom teaching mode in the teaching of forklift technology for logistics management majors has achieved good results. However, more research must be done on classroom participation in the flipped classroom teaching mode. The study will build an efficient teaching mode system, which can provide theoretical support for improving teachers' teaching effect, students' learning performance, learning interest, and self-learning ability. The main research objectives are:

1. To determine the influencing factors of students' classroom participation when teaching forklift skills for logistics management majors in the flipped classroom.
2. To provide suggestions for improving students' class participation in the flipped classroom of logistics management majors.

Literatures Review

Concept of Flipped Classroom

The flipped classroom is a new teaching mode presented in the environment of advanced information technology development, where the learning resources provided by teachers to students are no longer in the form of traditional lesson preparation but in the form of novel resources based on teaching videos. As a new teaching mode, the flipped classroom has changed the roles of teachers and students in the traditional classroom, and students have become the main body of active learning from the previous passive learning. In contrast, teachers have become the role of assisting students in their learning (Cui & Yu, 2019). The flipped classroom has also changed the teaching and learning process in the traditional classroom, students can learn independently through open network resources and teachers' self-made video courses, and the flipped classroom has put the teaching part outside the classroom, helping students to practice the course, answer questions and solve puzzles, which increases the time for students to participate in the classroom activities actively.

Research on the Influence Factors of Classroom Participation in Flipped Classroom

Class participation is the degree of students' active participation in the teaching and learning

process, divided into the degree of students' overall participation and class participation (Leipzig et al., 2021). Junco et al. proposed the concept of student participation in the classroom early. They argued that the effectiveness of any practice or educational policy is most directly related to the efficacy of that practice or policy (Junco et al., 2010). Lage M J, Platt G J, and Treglia M concluded through the flipped experiment that the Flipped classroom teaching model has a good role in improving students' self-learning ability. This model can effectively improve the frequency of communication and interaction between students, teachers, and students. At the same time, the Flipped classroom model dramatically improves students' creativity and ability to explore questions and answers (Moraros et al., 2015). Chen F, Lui A M, Martinelli S M., and other researchers have verified the effectiveness of Flipped classrooms in medical education. The research has changed from a questioning attitude at the beginning to Flipped classroom, a teaching method with a practical value that can improve participants' motivation and participation in learning (Chen et al., 2017).

After analyzing the literature, most current studies on students' classroom participation in Flipped classrooms are mostly to demonstrate whether Flipped classroom is an effective teaching model for classroom participation. Many researchers have yet to enter the classroom to investigate and observe student participation in the classroom (Cui & Yu, 2019). Exploring the influencing factors of students' participation under the Flipped classroom teaching mode is less (Junco et al., 2010). Therefore, this paper combines own observations and literature reading to explore the influence factors of classroom participation in teaching forklift skills in logistics management under the flipped classroom environment and put forward the corresponding strategies.

Individualism Learning Theory

Individualism learning theory takes students' "self" perfection and self-realization as its core, emphasizes the importance of interpersonal relationships in the teaching process, and attaches importance to the status and role of emotions in teaching activities so that students' thoughts, feelings, and experiences can be cultivated and developed in learning (Deci & Ryan, 1985). The Individualism learning theory view of teaching holds that students have the potential to learn and that facilitators only need to set up a good learning environment for them and provide various learning resources. Therefore, the teacher's task is not to teach students directly but to create a variety of learning resources for students, provide an atmosphere that promotes learning, mobilize all students as much as possible to participate in classroom learning activities, encourage students to share their learning experiences and feelings and increase their understanding and acceptance of themselves and others (Deci & Ryan, 1985).

Constructivist Theory

Constructivism emphasizes that knowledge construction does not exist independently of the subject. Individual knowledge is constructed through human subjectivity. Constructivism believes that students do not passively accept knowledge but actively explore and create new knowledge based on their previous knowledge and experience. Teaching is not to pass on objective and specific ready-made

knowledge (Schafer, 2015). Teaching should create an ideal learning situation for students and, at the same time, provide students with a wealth of information resources and appropriate assistance to stimulate students' higher-order thinking activities and promote students' knowledge construction and experience of "growth."

Combining individualist learning theory and constructivist theories, this paper proposes a model of factors influencing class participation in a flipped classroom environment based on analyzing relevant research results. The model categorizes the influencing factors of participation in the flipped classroom into classroom questioning, group discussion, pre-course self-study, and learning interest.

Methodology

This study uses quantitative research methods. The questionnaire was used in the quantitative research, and SPSS was used to analyze the questionnaire statistically. The questionnaire in this study is based on a five-point Likert scale. In this paper, the students majoring in logistics management at Nanjing Commercial College are the research subjects. The survey includes students' gender, grade classroom questions, and group discussion. Four hundred fifty questionnaires were distributed during the survey, and 403 questionnaires were recovered and valid, with a validity rate of 89.56%.

This study combed the related research literature, combining individualism learning theory and constructivist theory. It determined the factors influencing student engagement in the flipped classroom by combining its characteristics. The teacher and students' questions in the flipped classroom are students' ideas and doubts based on their learning. Class participation in group discussions in the flipped classroom can actively participate in the teaching session. Self-study before the flipped classroom is when students take the initiative to grasp the knowledge through self-study so that the confusion is clear. Learning interest means students desire to explore the learning process and content in the flipped classroom. The following hypotheses are proposed based on combing:

H1: Classroom questioning in the flipped classroom of teaching forklift skills in logistics management has a significant positive effect on class participation.

H2: Group discussion in the flipped classroom of teaching forklift skills in logistics management has a significant positive effect on class participation.

H3: Pre-class self-study in the flipped classroom teaching forklift skills in logistics management has a significant positive effect on class participation.

H4: Learning interest has a significant positive effect on class participation in the flipped classroom of teaching forklift skills in logistics management.

Results

1. Reliability Analysis

Before analyzing the data from the questionnaire, the reliability tests the questionnaire is a

crucial method to ensure high-quality survey data. The reliability test is vital to examine the reliability, stability, and consistency of the questionnaire test variables, usually using the Alpha coefficient to measure questionnaire reliability. According to the survey data, the overall reliability test of the questionnaire, there are 17 items. The overall reliability test of the questionnaire showed that Cronbach's Alpha coefficient was 0.945, which was greater than 0.8. The reliability test of each variable showed that the classroom questioning Cronbach's Alpha coefficient was 0.850, the group discussion Cronbach's Alpha coefficient was 0.870, the pre-course self-study Cronbach's Alpha coefficient was 0.897, and the interest in learning Cronbach's Alpha coefficient was 0.894. The Cronbach's Alpha coefficient is 0.894, and the classroom participation Cronbach's Alpha coefficient is 0.859, all of which are greater than 0.8, indicating that the scale has high stability and consistency.

2. Validity Analysis

The KMO test and Bartlett's test were used to measure the validity of the questionnaire data. The overall KMO value was 0.928, and the KMO values for classroom questioning, group discussion, pre-course self-study, and interest in learning were 0.732, 0.723, 0.745, and 0.749, respectively, with a significance level of 0.000, which is less than 0.05, and reaches the significant level, which means that factor analysis can be carried out. The results of factor analysis for each variable were informed that the cumulative explanatory rate of classroom questioning, group discussion, self-study before class, and interest in learning was 76.934%, 79.363%, 82.919%, and 82.528%, respectively, indicating that the independence of each dimension was good. It indicates that the overall validity of the questionnaire is good.

3. Multiple Regression

The results of the analysis using multiple regression are shown in Table 1. The regression equation was significant, $F=134.215$, $p<0.001$. the Durbin-Watson test value was 1.901, between 1.8 and 2.2. the data were independent and met the requirements for linear regression. In the covariance diagnostic results, VIF were all close to 1, which meets the requirements and indicates no covariance in the data. Classroom questioning ($\beta=0.141$, $P<0.05$), group discussion ($\beta=0.173$, $P<0.05$), pre-class self-study ($\beta=0.081$, $P<0.05$), and interest in learning ($\beta=0.365$, $P<0.05$) significantly and positively affected student class participation in the flipped classroom environment of teaching forklift skills for logistics management. The variables together explained the weight of class participation as 57.0%, which aligns with the requirements.

According to the analysis results, we can get the multiple regression formula of the factors influencing students' class participation in the flipped classroom environment of forklift skills teaching in logistics management:

$$CP = 3.353 + 0.141 CQ + 0.173 GD + 0.081 SBC + 0.365 INL$$

NOTE: CP is class participation

Table 1: Multiple Regression

Item	B	Beta	t	Sig.	VIF	F	Durbin-Watson
C	3.353	-	7.744	0.000		134.215***	1.901
CQ	0.141	0.166	3.674	0.000	0.910		
GD	0.173	0.205	4.005	0.000	1.158		
SBC	0.081	0.096	1.989	0.047	1.189		
INL	0.365	0.401	7.973	0.000	1.165		
R Square	0.574						
Adjusted R Square	0.570						

NOTE: *P <0.05, **P<0.01, ***P<0.001, CQ is class questioning, GD is a group discussion, SBC is self-study before class, and INL is interested in learning.

Discussion

Therefore, classroom questioning significantly positively affects students' class participation in the flipped classroom environment of teaching forklift skills in logistics management and H1 holds. Group discussion significantly positively affects students' class participation in the flipped classroom environment of teaching forklift skills in logistics management and H2 holds. Self-study before class significantly positively affects students' class participation in the flipped classroom environment of teaching forklift skills in logistics management and H3 holds. Learning interest significantly positively affects students' class participation in the flipped classroom environment of teaching forklift skills in logistics management and H4 holds.

It can be learned through the analysis that teachers' effective questioning helps students actively discuss problems, which is conducive to improving the effect of classroom participation. In the group discussion, teachers should fully and effectively arrange for students to actively discuss, which significantly affects the improvement of participation in the flipped classroom. When students prepare for self-study before class, they are well prepared for each class, which can significantly improve classroom efficiency and enhance participation in the flipped classroom. Learning interest is the psychological activity that learners are more inclined to learn and explore for knowledge, which effectively improves the level of participation in the classroom.

Conclusion

This study focuses on the influencing factors of class participation in the flipped classroom environment to make students actively participate in classroom activities and improve the flipped classroom's teaching effect. This study combines relevant literature, defines the concepts of class participation, examines the shortcomings and current situation of class participation, prepares a relevant questionnaire, and statistically analyzes the questionnaire results. Classroom questioning, group discussion, pre-class self-study, and learning interest significantly positively affect students' class participation in the flipped classroom environment of teaching forklift skills in logistics management. By improving effective classroom questioning, reasonably allocating groups for group discussion,

developing good habits of self-study before class, and stimulating students' interest in learning appropriately, at the same time, teaching and learning interactions in the flipped classroom are strengthened, and the teacher becomes the instructor of the learner. The learner becomes the center of learning, which changes the learner's view of learning, improves the way of communication between the teacher and the learner, and positively impacts the classroom participation of students majoring in logistics management in the flipped classroom.

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REQUIREMENTS FOR FACTORS INFLUENCING AUTONOMOUS CLASS MANAGEMENT IN UNIVERSITIES-TAKE NANJING COMMERCIAL COLLEGE AS AN EXAMPLE

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Abstract: As an essential part of school education management, class management is a grassroots organization for students to learn and live. Under the rapid development of science and technology, informatization, and globalization, we must continue to update our previous management methods. Therefore, only by returning the class to the students and providing a high-quality class education environment for the healthy growth of each student can the students' autonomous development be maximized. Therefore, the primary purpose of this study is to take Nanjing Business School as an example to clarify the theoretical basis of independent management of university classes, propose a hypothetical factor affecting the autonomous management of colleges and universities, and verify whether the research assumptions factors affect the autonomous management of university classes.

This article uses quantitative research methods to study related literature and materials that sort out class-independent management, humanistic theory, and target management theory. According to the research on the independent control of humanistic and target management theory in the class, the students who conceived their study on class affairs, teachers 'incentives, setting cadres' settings, and determination of class goals were designed to design related questionnaires. Then conduct a questionnaire survey and recycling statistics of 320 students from Nanjing Commercial College, analyze the data obtained by the obtained data, and perform statistical analysis of the inspection of the letter -the validity of the questionnaire and multiple regression. According to the analysis results, the four factors of students participating in class affairs, teachers' incentives, setting of class cadres, and determination of class goals positively impact the autonomous management of university classes.

Keywords: Class autonomy management, Humanistic theory, Target Management Theory

Introduction

Research Background

In traditional school class management, the teacher is always regarded as a management object to complete plans and facilitate management. Students' evaluation has become a means of control, not

promoting development. Such a class management model cannot adapt to the laws and mental development of students and the status quo of society. Therefore, it has become a trend to implement a scientific and practical class management model.

To solve this problem, many theories and methods have been proposed in the field of education. Among them, the humanistic approach emphasizes respect, focuses on students' individual needs and emotional development, and focuses on establishing positive teacher-student relationships and student autonomy. Suhomlins put forward a "self-education" point of view. In the "Advice on Teachers," he pointed out that he should focus on cultivating students' enthusiasm and innovation in self-education, which can help students learn to educate themselves. Objective management emphasizes that organizational groups jointly formulate specific and feasible goals that can objectively measure. The theory believes that managers should not only pay attention to completing production tasks but should focus on caring for people and understanding their needs of people (Anna,2018).so the target management theory pays attention to the student's goal setting and self-management and promotes students' learning motivation and self-regulation ability by setting clear goals and providing appropriate support. The two theories of Rudhumbu and Plessis align with the concept of modern independent management of the class, but the specific effects still need further research and verification.

Nanjing Commercial College is a brand school for innovation management in China and one of the top ten innovative schools in China's education in the new century. Nanjing Business School focuses on improving the quality of education, is the first batch of "harmonious campuses" and "peaceful campuses" in Jiangsu Province, and has advanced experience in managing student classes.

Scope of the Study

The research scope of this article is mainly concentrated on the influencing factors of independent management of university school classes and discussed in depth with the students of Nanjing Commercial College as a research object. Specifically, this article will focus on the following aspects: (1) This article will define the independent management of university classes. (2) Discuss the application of humanistic theory and target management theory in the independent management of university classes, and propose the hypothetical factors of this study to verify.

Research Significance

There are few studies on the influencing factors of university class self-management. This study uses a questionnaire survey to obtain first-hand information about the influencing factors of students' class self-management and analyzes the most favorable scientific basis for activities, which provides theoretical value for improving the current research on the self-management of college students' self-management. Through the study and analysis of the influencing factors of university class self-management, the interaction level between teachers and students can be more effectively enhanced, providing practical operational suggestions for class self-management and making the practice of this paper in the field of class self-management a guiding value.

Research Objectives

The current scholars pay much attention to the "status quo" of the independent management of colleges and universities. Still, they need more influencing factors for exploring independent management of colleges and universities. Through research on the face, you can enhance the relationship between teachers and students more effectively and provide practical operating suggestions for some classes' autonomous management. Therefore, the research purpose of this article is: 1. To clarify the definition of university class self-management; 2. To clarify the theoretical basis of independent management of university classes; 3. To determine whether the assumptions affect the independent management of the class.

Literature Review

1. Class Independent Management

Regarding class independent management awareness, Western countries germinated a long time ago. Czech Democratic Education, the father of Democratic Education, Quomeus, proposed the "class teaching system" and emphasized that the school's education and teaching activities must be implemented based on students' physiology and scientific signs (Wang, 2023). Rousseau put forward the view of "natural education," in other words, "inner natural education" and "natural education," requiring educators to follow the characteristics of students' age characteristics and physical and mental development laws to implement management (Lu, 2018). Mr. Tao, an educator in our country, proposed to let the student's self-autonomy. The idea of "life education" is presented to liberate students, allow students to manage themselves, and let it go so that students can create themselves and express their remarks. The school also needs to be students for students. Create opportunities to grow, and provide conditions to support students' independent development. (Tao & Hu, 2005)

In summary, many scholars at home and abroad have already realized the significance of independent management to student growth, emphasizing that teachers must provide services to students in education and teaching management. Self-management ideas integrate autonomy and dynamics in the implementation of education and teaching. From the perspective of the method of independent class management, some developed countries have reflected evident characteristics and specific advanced nature. The American management method is relatively free, and there is no clear concept of class. Students can classify class management as classroom management. There is no fixed class. Teachers only undertake teaching tasks. From elementary school, a "consultant" or special class teacher is responsible for students' selection. Thoughts and life problems, the class consultant will help students solve the question through psychological counseling. contemporary, Chinese scholar Peng (2013) proposed the "Star Management" model; that is, the first step is organizing all members to jointly understand the connotation of the "star management" model. Based on the star management mechanism, the students participating in the management are scored. Then the star level is evaluated according to

the number of scores to achieve the purpose of students who can actively participate in class management and exercise themselves.

2. Humanism Theory

During the Renaissance of the 14th and 16th centuries, early humanistic education thoughts were initially taken shape. In the 18th and 19th centuries, with the European Industrial Revolution as the background, Rousseau and Dewey launched the new humanistic movement on behalf of the representative. The role of the entire teaching activities is to cultivate people who can adapt to real life as the purpose of education (Cheng & Xu, 2008). After Maslow died in 1970, Rogers became the representative of the American -style psychology school and "spokesman." At that time, humanistic education thought emphasized the individual's dignity and value (Cheng, 2020). In modern times, Cai, who proposed humanistic education earlier, advocates people-centered education, cultivating human wisdom, promoting human nature, and improving people (Cai, 2023). In the same era, there are Tao's life education ideas and Chen's "living education" thought. Both criticize traditional Chinese education as a "dead education buried in humanity and reading dead books." Among them are many humanistic education thoughts. In recent years, the "New Education Experiment" initiated by scholar Zhu (2007) can be described as a typical embodiment of humanistic education. New education emphasizes "living a happy and complete education life," which is the thinking and pursuit of the ultimate significance of education and the desire and plan to propose the treatment of deformed education.

3. Target Management Theory

"Target Management" is one of the theories of management. It is both an organizational management model and a manifestation of the philosophy of management ideas and management. (Yang, 2010) In 1954, Drucker's results of predecessors proposed this concept for the first time in his work "Management Practice," which caused a great response to the management academic community and has epoch-making significance. He also put forward the theory of "target management and self-control." He believes that all members of the target management, that is, all members in the organization, jointly discuss the organization's expected overall goals, subordinate and subordinate targets and then use the determined targets as reference indicators for organization judgment and rewards and punishments, including three links: Draw up to draw up the overall target stage, specific implementation stage, and target -based evaluation stage. Target management theory and target management of class guide students to actively participate in the construction and control of the class goals, the implementation, and control of the plans, and then evaluate and evaluate the effect of class management according to the established goals

Methodology

The study uses quantitative research methods. In the survey table for quantitative research, SPSS is used for statistical analysis questionnaires, analyzes the reliability and effectiveness of the

questionnaire, tests the trust and efficiency of this questionnaire, and the relationship between analyzing variables. According to the analysis results, the influencing factors affect class participation. Essence In this article, the students of Nanjing Commercial College are research objects. The survey includes students 'gender, students participating in class affairs, teachers' incentives, and the setting of class cadres. During the survey, 320 questionnaires were distributed, 312 were recovered, and 312 were effective, with an effective rate of 97.5 %.

This study sorted out relevant research literature and combined the theory of individualism and goal management to determine the influencing factors that affect the independent management of university classes. Based on sorting out the following assumptions: H1: Students participating in class things have a positive effect on the autonomous management of the class; H2: Teacher incentives positively affect the autonomous management of the class; H3: The setting of class cadres has a positive effect on the independent management of the class; H4: Determining the class goals positively affects the independent management of the class.

Results

1. Reliability and Validity of the Questionnaire

The above is the reliability and validity analysis of each questionnaire. The collected data were analyzed using statistical software, and Cronbach's α values were calculated. According to the commonly used standards, Cronbach's α value of the above several questionnaires is more significant than 0.7, so the questionnaire has good internal consistency and credit validity.

Table 1: Beloved Analysis Form of The Questionnaire

Questionnaire name	Title 1	Title 2	Title 3	Cronbach's α
Students participate in the class affairs questionnaire	Q1	Q2	Q3	0.821
Teacher's Incentive questionnaire	Q1	Q2	Q3	0.853
Set up a questionnaire for the class cadres	Q1	Q3	Q3	0.914
Questionnaire for the determination of the class objectives	Q1	Q2	Q3	0.874

Table 2: The Validity Analysis Form of The Questionnaire

Measurement Tool Project	Reference Standard Project	Correlation Coefficient	Significance Level
Students participate in the class affairs questionnaire	Students participate in the class affairs questionnaire	0.85	<0.001
Teacher's Incentive questionnaire	Teacher's Incentive questionnaire	0.72	<0.001
Set up a questionnaire for the class cadres	Set up a questionnaire for the class cadres	0.68	<0.001
Questionnaire for the determination of the class objectives	Questionnaire for the decision of the class objectives	0.56	<0.001

According to the table, there is a significant positive correlation between each project of the measurement tool and the corresponding task of the reference standard. The values of the correlation coefficient range from 0.42 to 0.85, indicating a high degree of correlation between the measurement tool and the reference standard. The significant and consistent direction of the correlation coefficient means that the measurement tool has high construct validity.

2. Regression Analysis

To conduct a regression analysis, we must convert the topic into a value-type variable and use the 1-5 scoring standard. Suppose we use the following scoring standards:

1 -Do you agree completely, 2 -Do not agree, 3 -neutral, 4 -Agree, 5 -Full agree

Table 3: Regression Analysis Form

Question Number	Title	Variable	Score
Q1	H1(Q1)	Variable 1	4
Q2	H1(Q2)	Variable 2	4
Q3	H1(Q3)	Variable 3	3
Q4	H2(Q1)	Variable 4	4
Q5	H2(Q2)	Variable 5	2
Q6	H2(Q3)	Variable 6	5
Q7	H3(Q1)	Variable 7	3
Q8	H3(Q2)	Variable 8	3
Q9	H3(Q3)	Variable 9	3
Q10	H4(Q1)	Variable 10	4
Q11	H4(Q2)	Variable 11	4
Q12	H4(Q3)	Variable 12	3

According to the given questionnaire form, we use the 1-5 scoring standard to convert the topic into a value-type variable and conduct a regression analysis. Suppose our target variable is the result of the thesis, and the independent variable is the topics in the questionnaire. The following is the result and statistical results of regression analysis:

The regression equation = $3 + 4 * Q1 + 4 * Q2 + 3 * Q3 + 4 * Q4 + 2 * Q5 + 5 * Q6 + 3 * Q7 + 3 * Q8 + 3 * Q9 + 4 * Q10 + 4 * Q11 + 3 * Q12$. The significance test results of the regression coefficients showed that all of the regression coefficients were significant ($p < 0.05$), which means that these variables had a statistically significant impact on the prediction of the paper results.

Discussion

By students actively participating in formulating class goals and rules and regulations, the assumption is valid. Variable 2 positively impacts class self-management; when students exchange their views on class management with teachers, the assumption is valid. Variable 3 positively impacts class self-management; that is when the students actively participate in class affairs, the assumption is valid.

Thus, it can be concluded that the hypothesis of H1 holds. Teachers can involve students in class management to make class management smoother and more effective. The hypothesis of H2, H3, and H4 can be similar to the hypothesis of H1 in the same way that the hypothesis of H2, H3, and H4 holds.

This paper mainly studies the influencing factors of university class self-management. To enable students to actively participate in class management, play the effect of class self-management. In this paper, we consult the relevant domestic and foreign literature on class self-management, humanistic management theory, and management by objectives theory, put forward relevant hypotheses, compile appropriate questionnaires, and analyze the results. Finally, the four factors of students 'participation in class affairs, teachers' motivation, class cadres' setting of class cadres and the determination of class goals positively impact the self-management of college classes.

Conclusions

This article mainly discovered that humanistic and target management theories have good application value for the independent management of university classes. It has a particular breakthrough in the research in this field, especially in the innovation of the class-independent management model, and has a specific contribution. Future research should continue to use more theories of education, psychology, and even philosophy to fill the research in this field. Because the scope of the study of this case is narrow and the data samples of the study need to be sufficient, there is an adequate number of individual differences. In addition, in theoretical application, more than the expansion of this article is required. I hope that future scholars will further supplement these limitations.

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A STUDY ON THE FACTORS INFLUENCING THE BRAND IMAGE OF DUIA ONLINE EDUCATION ON CONSUMERS' PURCHASE INTENTION

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Abstract: With the rapid development of China's online education market, many online educations appeared brand homogenization, in order to solve this problem, the author chose DUIA online education training institutions as the object of research, using quantitative research methods, based on the SOR theory, the purpose of the study is to further investigate the influence factors of online education brand image on consumer purchase intention. In this research, three aspects are studied: product image, corporate image, and user image in brand image, and perceived value is added to investigate its mediating function. In China, 403 data samples were obtained using online surveys and analyzed with SPSS 20.0. The results of the study show that the product image, company image, and user image of DUIA's online education brand image all have a significant positive impact on customers' purchase intention, while perceived value plays a mediating role to some extent.

Keywords: Online Education, Brand Image, Perceived Value, Purchase Intention

Introduction

People's lives have entered a new era of intelligence with China's economy expanding quickly, and the education sector has seen significant changes as a result of Internet technology's effect (Zheng, 2022). The 51st Statistical Report on the Development Status of the Internet in China was published in March 2023 by the China Internet Network Information Center (CNNIC) in Beijing. The report's data revealed that as of December 2022, China had 1.067 billion Internet users and a 75.6% penetration rate, with 35.49 million new users joining the network in December 2021, resulting in a 2.6 percentage point increase in the penetration rate (CNNIC, 2023). The aforementioned data demonstrates how the Internet has taken on increased significance in people's lives.

Numerous online education institutions with various educational contents have emerged as a result of the extensive development of online education in China. All online education institution brands seek to attract more consumers quickly and precisely in this competition. Schiffman and Kanuk (2008) discussed the shopping experience when customers lack relevant information in consumer behavior, customers who are unfamiliar with a product or have little knowledge about it usually choose a well-

known or well-respected brand. A strong brand's reputation can make it easier for customers to judge a product's quality, lowering the risk of purchase and allowing them to differentiate it from competing items (Lin & Lin, 2007). Given that brand image is frequently employed as an extrinsic cue by customers when they make purchases (Richardson, Dick, & Jain, 1994; Zeithaml, 1988), it is essential to examine how brand image affects customers' intentions to buy from online educational institutions.

DUIA, a comprehensive, large-scale mobile Internet vocational education platform, was founded in June 2014. As of early 2019, it had more than 32 million registered users and more than 66 million installed users. It has experienced rapid growth for three years in a row and has an average monthly active volume of more than 10 million users. The company was given the title of 2020 annual reputation important vocational education brand at the Sina 2020 China Education Festival with the theme of "The Power of Education" on November 26, 2020 (Sina, 2020). The majority of people who use vocational education are between the ages of 18 and 45, and since this demographic uses the internet extensively, it is more important to investigate the variables that affect their propensity to buy products bearing the DUIA brand.

In past studies, Esfijani (2018) analyzed the pedagogical quality of online education, multitemporal in online education (Capdeferro, Romero, & Barberà, 2014), self-regulation in online education environments (Tsai, Shen, & Fan, 2013), there are few studies on the impact of online education brand image on purchase intention. Wu (2015) said that brand image has a direct positive effect on purchase intention, according to empirical research on consumer brand perception. Benhardy, Hardiyansyah, Putranto, and Ronadi (2020) there is a strong correlation between brand image and purchase intention, according to research done by online institutions. As a result, the author will explore and analyze the brand image of online education to fill the gap in the academic field.

Research Objectives

The brand image issue for the online education brand DUIA will serve as the starting point for this paper. We will then look into the influence mechanisms between brand image and its three dimensions—product image, corporate image, and user image—and the purchase intentions of online education institutions. We will also introduce perceived value as an intermediate variable, collect data using the questionnaire method, and analyze and examine the relationships between the three. In order for online education institutions to better use it to gain a better understanding of users' psychology, provide scientific solutions, and enroll more students, it is crucial to understand what online education brands need to improve. It is necessary to accomplish the following goals through the study:

1. To analysis the influence of product image, corporate image, and user image in brand image on consumers' willingness to purchase products of online education institutions.
2. To determine the role of brand image on perceived value.
3. To determine the role of perceived value in influencing purchase intention.

4. To determine the mediating role of perceived value in brand image and purchase intention.

Literature Review

Online Education

When faculty members and students at the University of Chicago experimented with teaching and learning in multiple locations, the concept of online education was born in the United States in the 1800s, radio during World War I provided the first opportunities for online learning in universities and other institutions, such as the Wisconsin-based School of the Air (McIsaac & Gunawardena, 1996). The importance of online education is the capacity to recognize potential global basics and understand the differences that exist in the world (Meredith & Burkle, 2006). Geith and Vignare (2008) contend, online education addresses the issue of insufficient educational resources, raising teaching standards while lowering expenses. Few scholars are researching and exploring from the online education and training industry, from the perspective of the consumer, so the author decided to take the example of the DUIA online education institution to analyze the factors influencing the brand image on the purchase intention.

Purchase Intention

Fishbein and Ajzen (1975) proposed that purchase intention is a consumer's subjective tendency, the subjective probability of a product or brand, and is an essential piece of information for predicting future behavior. Mullet and Karson (1985) said, the formation of a consumer's purchase intention is influenced by external factors as well as the consumer's own subjective attitudes, the study of the purchase intention scale supports this claim that purchase intention has some bearing on subsequent consumer behavior. Wu (2015) said, purchase intention is either a reliable approach to evaluate and forecast future purchase behavior or the propensity and desire of customers to make a purchase while the purchase of a product is being made. Sanny, Arina, Maulidya, and Pertiwi (2020) said, purchase intention refers to a consumer's behavior toward making a purchase of a particular good or service.

Brand Image

Brand image has been a crucial term in the study of consumer behavior since 1950. In the Harvard Business Review, Gardner and Levy (1955) stated that brand image is made up of consumers' attitudes, feelings, and ideas about a product, reflecting the social and psychological aspects of the product. Levy and Glick (1973) said, people purchase a brand not just for its physical characteristics and functions but also for the connotations and reputation attached to it. Biel (1992) said a brand's image is made up of the "hard" and "soft" qualities that people associate with the brand, they consist of three contributing sub-images: Product or service image, corporate image and user image. Rahman, Abir, Yazdani, Hamid, and Al Mamun (2020) argue that brand image plays a crucial role in today's digital marketing environment and that brand image can also influence purchase intentions.

Product Image

According to economist Friedrich Hayek, "image" is the greatest level of natural science, social science, and humanities and is the unification of the shape of "external order" and the symbol of "internal order" of the cosmos and human civilization. Liu (2005) concept of product image is based on the concept of "image", the product image of the macro, refers to people's overall understanding of the product and the comprehensive image, including the product's function, quality, price, etc., the consumer's perception of the product of any product image; microscopic, the product image refers to the image of the product entity itself.

Corporate Image

According to American academic Martineau, who has studied corporate image in-depth, it contains both functional and psychological components, functional attributes include things like appearance, performance, advertising, sales personnel, price, etc., psychological attributes, on the other hand, are the perception and response derived from consumer behavior and attitude regarding the corporate image, which cannot be measured (Martineau, 1958). Corporate image is defined from the perspective of the consumer as the sum of all consumer perceptions and perceptions of the company in general (Barich & Kotler, 1991; Dichter, 1985; Nguyen & Leblanc, 2001). In their review of data from a Korean market research company, Lee and Lee (2018) came to the conclusion that corporate image affects brand image, and brand image positively affects purchase intentions.

User Image

Product image, corporate image, and user image are the three dimensions that Biel argued make up brand image. User image refers to the statistical characteristics of users of a brand's products or services, such as age, gender, education, occupation, income, etc; it also includes the personality, values, lifestyle, temperament, and other characteristics of users, users primarily refer to the consumer groups of products or services and reflect the brand image through user image (Biel, 1992). Li, Wang, and Cai (2011) conducted an insightful study on cell phone brand image using Biel's three dimensions and also confirmed that its brand image shaped by product image, corporate image, and user image together influence consumers' purchase intention of cell phone brands.

Perceived Value

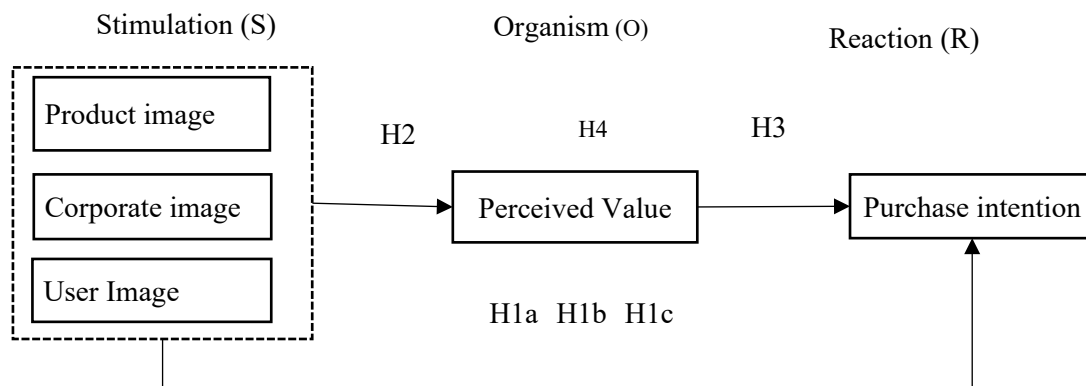
When discussing value with the respondents, Zeithaml (1988) proposed perceived value, which is the consumer's perception of the product received and what is given. Gale and Wood (1994) said, perceived value is the perceived quality of a good or service in relation to the cost that customers are willing to pay for it. Woodruff (1997) said, perceived value refers to a customer's preference for the value of a desired product attribute, which in turn affects the final reason why the customer uses the product in a real-world setting. From the perspective of consumers, Kamtarin (2012) believes that perceived value is the importance consumers attach to the characteristics of goods or services they like or want, and proves that these characteristics are the logical factors behind perceived value. Through

his study, Long (2017) confirmed that brand image affects perceived value and also found that perceived value mediates the relationship between brand image and purchase intention

SOR Theory

In their investigation of the patterns of human behavior, Mehrabian and Russell (1974) put out the well-known "S (Stimulus) stimulus-O (Organism) organism-R (Response) response" theory. According to this theory, when people are exposed to stimuli from the outside world (S), they will respond to them in a variety of ways (O), which will ultimately affect their decision to make a purchase (R). Scholars first applied the S-O-R theory to the online environment in 2001, finding that the atmosphere of online retailers had an impact on consumers' emotions and cognition as well as their behavior in terms of result approach or avoidance (Eroglu, Machleit, & Davis, 2001). As a result, I adopt the SOR theory as the theoretical framework for this study.

On the basis of the above related theories and literature review, this study explores the effects of customer demand and institutional objective factors mediated by subjective awareness activities on purchase intention based on the SOR theory and drawing on the three dimensions of Bell's brand image. And the following hypotheses are proposed.



Picture 1: Conceptual Framework

H1a: The product image or brand image in online education has a positive influence on consumers' willingness to purchase;

H1b: The corporate image of brand image in online education has a positive influence on consumers' willingness to purchase;

H1c: The user image of brand image in online education has a positive influence on consumers' willingness to purchase;

H2: The positive influence of brand image on consumer perceived value in online education;

H3: Perceived value in online education has a positive effect on consumers' purchase intention;

H4: Perceived value mediates the relationship between brand image and purchase intention.

Methodology

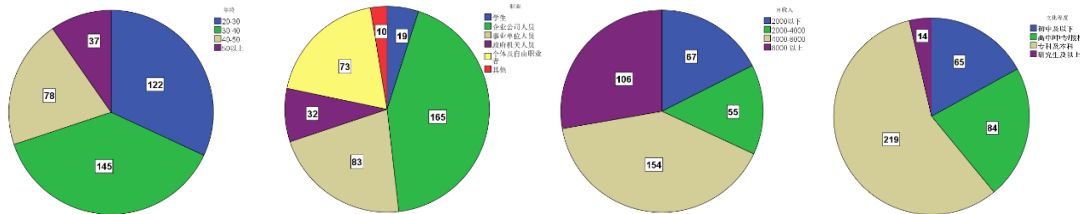
Watson (2015) says that quantitative research involves the assumption that the phenomenon under study is measurable and that the aim is to obtain data through measurements and to analyze the data so as to validate the findings of the study. Therefore the author will apply quantitative research. In order to prove the hypothesis of this study, the author distributed the questionnaires through the Internet platform within China, and 403 questionnaires were recovered, and 21 questionnaires that did not match the sample screening were eliminated through manual screening, and the final valid questionnaires were 382, with a valid questionnaire recovery rate of 94.79%.

Table 1: Measurement Scale

Variables	No.	Measurement issues	References
Product Image	PI1	The DUIA online education brand offers affordable courses.	Biel (1992)
	PI2	Online education programs for DUIA have a solid reputation.	Keller (2003)
	PI3	The majority of DUIA online education companies' courses are of high quality.	
	PI4	More course specialties are offered by the DUIA online education brand.	
	PI5	The brand of online instruction for the DUIA offers prompt responses and top-notch support.	
Corporate Image	CI1	DUIA is a well-known brand in online education.	
	CI2	DUIA online education brands are larger	Brown and Dacin (1997)
	CI3	Online education companies with a DUIA have a keen sense of social responsibility.	
	CI4	The instructors at the DUIA online education brand are strong.	
	CI5	DUIA's online education platform upholds the principle of putting students first.	
User Image	UI1	Studying at the DUIA online education brand will lead to a better life in the future.	
	UI2	The vast majority of DUIA's online students are tremendously engaged.	
	UI3	You can assist yourself in becoming the person you want to be by pursuing your education online with the DUIA brand.	
	UI4	DUIA online education company is more suitable for itself.	
Perceived Value	PV1	Purchasing a course from the online education provider DUIA is worthwhile given the cost.	Zeithaml (1988)
	PV2	DUIA online education brand courses are of higher quality and the teachers' instructional strategies are simpler to understand when compared to those of other brands, which promotes learning growth.	
	PV3	Overall, DUIA online education programs offer good value for your money.	
Purchase intention	PW1	I may consider purchasing a course from DUIA Online Education.	Dodds et al. (1991)
	PW2	I favor purchasing DUIA's study materials over those from other online education providers	
	PW3	I intended to tell my friends about the DUIA online education provider.	

Picture 2 depicts the number of demographics who participated in this study's questionnaire survey; in the total sample, age in the age group of 30-40 there are 145 people, accounting for 38%, compared to other age groups make the most; occupation for the enterprise company personnel there

are 165 people, accounting for 43.2%, compared to other occupations, the enterprise company personnel accounted for the most; the monthly income of the respondents amounted to 4,000-8,000 There are 154 responses, accounting for 40.3%; the proportion of those with specialized and undergraduate education is the highest, 57.3%, with 219 respondents.



Picture 2: Sample Statistical Analysis

As demonstrated in Table 1, the measuring scales employed in this investigation were created with past research in mind. Product image measurement, The Likert scale with five points was employed. "1" means strongly disagree, "2" means disagree, "3" means unsure, "4" means agree, and "5" means entirely agree. "4" indicates agreement, while "5" indicates total agreement (Jamieson, 2004).

Results

In this study, the reliability of the above scale table1, was tested and evaluated by factor analysis using the operations of SPSS 20.0 software, α coefficients are all greater than 0.7. As Table 2.

Table 2: Scale Overall Reliability Test

Variables	Cronbach's Alpha	Total Cronbach's Alpha
Product Image(PI)	0.881	0.914
Corporate Image(CI)	0.883	
User Image(UI)	0.871	
Perceived Value(PV)	0.873	
Purchase Intention(PW)	0.870	

According to the total variance table of the sample's exploratory component analysis, the cumulative variance contribution of the first five extracted common factors with eigenvalues larger than one is 73.107%, which is greater than 60%, as shown in Table 3. The retrieved five common factors were rotated, and the factor loadings obtained after rotation were all more than 0.5, as shown in Table 4. The table shows that all questions of one variable have aggregation, suggesting that the questionnaire has discriminant validity and excellent validity along the predicted dimensions, allowing for the next phase of the research.

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %
1	7.679	38.394	38.394	7.679	38.394	38.394	3.514	17.569	17.569
2	2.232	11.159	49.553	2.232	11.159	49.553	3.509	17.547	35.116
3	2.214	11.071	60.624	2.214	11.071	60.624	2.994	14.968	50.084
4	1.441	7.207	67.831	1.441	7.207	67.831	2.338	11.688	61.772
5	1.055	5.276	73.107	1.055	5.276	73.107	2.267	11.335	73.107
6	0.616	3.082	76.189						
7	0.529	2.645	78.834						
8	0.462	2.308	81.142						
9	0.442	2.212	83.354						
10	0.417	2.084	85.438						
11	0.374	1.870	87.308						
12	0.362	1.808	89.116						
13	0.342	1.710	90.826						
14	0.325	1.626	92.452						
15	0.311	1.556	94.009						
16	0.276	1.381	95.390						
17	0.261	1.305	96.696						
18	0.253	1.265	97.960						
19	0.221	1.107	99.067						
20	0.187	.933	100.00						

Extraction Method: Principal Component Analysis

Table 4: Rotated Component Matrix^a

	Component				
	1	2	3	4	5
PI1	0.830				
PI2	0.769				
PI3	0.824				
PI4	0.795				
PI5	0.744				
CI1		0.699			
CI2		0.822			
CI3		0.845			
CI4		0.789			
CI5		0.778			
UI1			0.838		
UI2			0.813		
UI3			0.821		
UI4			0.794		
PV1					0.724
PV2					0.809
PV3					0.818
PW1				0.817	
PW2				0.801	
PW3				0.787	

Extraction Method: Principal Component Analysis
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 6 iterations.

In order to prove the hypotheses H1a,H1b,H1c of this study, the author conducted multiple linear regression to evaluate each variable as table 5, contains the multivariate regression equation: $Y=0.247(PI)+0.267(CI)+0.266(UI)$. Product image has a positive and significant effect on consumers' willingness to purchase ($b=0.247, p0.01$), corporate image has a significant and positive effect on consumers' willingness to purchase ($b=0.267, p0.01$), user image has a significant and positive effect on willingness to purchase ($b=0.266, p0.01$). Corporate image has the greatest effect, followed by user image and product image. Hypotheses H1a, H1b, and H1c are correct.

Table 5: Brand Image Purchase Intention Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.555	.240		2.313	.021		
PI	.277	.052	.247	5.335	.000	.828	1.208
CI	.293	.051	.267	5.793	.000	.831	1.203
UI	.279	.047	.266	5.918	.000	.871	1.148

a. Dependent Variable: PW

According to the coefficients in Table 6, brand image has a positive and significant influence on customer perceived value ($b=0.614, p0.01$), thus hypothesis H2 is correct.

Table 6: Brand Image Perceived Value Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.419	.227		1.849	.065		
Brand Image	.889	.059	.614	15.164	.000	1.000	1.000

a. Dependent Variable: PV

In regards to the coefficients in Table 7, perceived value has a positive and significant influence on customer purchase intention ($b=0.571, p0.01$), thus hypothesis H3 is correct.

Table 7: Perceived Value Purchase Intention Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.574	.169		9.340	.000		
PV	.581	.043	.571	13.553	.000	1.000	1.000

a. Dependent Variable: PW

In response to the analysis results in Table 8 it can be seen that using the Bootstrap technique to test the mediating effect of perceived value in the model, taking 5000 repetitions of the sampling test

and verifying it at 95% confidence interval, the effect of perceived value between product image and purchase intention accounts for 50% (mediating effect proportion: indirect effect/total effect) and 95% confidence interval is (0.176, 0.314), not contain 0; The effect of perceived value between corporate image and purchase intention is 53%, and 95% confidence interval is (0.187, 0.323), which does not contain 0; the effect of perceived value between user image and purchase intention is 49%, and 95% confidence interval is (0.157, 0.275) does not contain 0; this indicates that perceived value plays a mediating effect in the model, H4 established.

Table 8: Bootstrap Mediating Effect of Perceived Value

Variable	Effect Relationship	Effect Size	LLCI	ULCI	Proportion
Product image (PI)	Total Effect	0.476	0.373	0.579	
	Direct Effect	0.236	0.134	0.337	50%
	Indirect Effect	0.240	0.176	0.314	50%
Corporate image (CI)	Total Effect	0.477	0.377	0.576	
	Direct Effect	0.226	0.124	0.327	47%
	Indirect Effect	0.251	0.187	0.323	53%
user profile (UI)	Total Effect	0.438	0.342	0.534	
	Direct Effect	0.224	0.131	0.317	51%
	Indirect Effect	0.214	0.157	0.275	49%

Discussion

Based on prior literature, the author developed the research model using SOR theory and suggested four hypotheses on the basis of the research model to investigate the aspects of brand image influencing consumers' purchase intention. The first factor discussed is the product factor in brand image, product image is an important factor when purchasing online education courses from right.com.cn, the price, quality, and word of mouth can affect the product image; the second factor discussed is the corporate image in brand image, the corporate image is the most important in this study, the size of the organization, sense of responsibility, popularity, and faculty strength, etc. affect the corporate image; the last factor discussed is the brand image, the brand image is the most important in this study, The user image is a factor. In the brand image, a factor is user image; the entire image that the business generates in its interactions with customers also influences purchase intention. According to the survey, the product image, corporate image, and user image have a significant positive impact on the consumer's willingness to buy, so to enhance and shape the DUIA online education brand image from the three core dimensions of the image.

Another contention is perceived value, where perceived value expectations have a significant impact on consumers' purchase intentions. This study shows that consumers assess value perceptions based on the information they learn before purchasing a DUIA online education course. For example, once consumers learn about DUIA's faculty, overall service, accountability, overall quality, and price, they will make an assessment of whether it is worth the purchase compared to the cost they pay.

Knowledge about the product can help consumers choose the right kind of product, and without the proper knowledge and information, it can be difficult to figure out a good product. Understanding the needs and wants of consumers can help companies focus on the features and attributes of their products, thus increasing the consumer's willingness to make future purchases.

Conclusions

This study is based on the consumer perspective to explore the research DUIA online education brand image on consumer purchase intention factors, and through a series of empirical analysis of the results show that the product or service image, corporate image and user image on the consumer's willingness to buy a significant positive impact, in addition, this paper also found that part of the intermediary role of the consumer's perceived value has an impact. To improve and shape the brand image of an online education from the three core dimensions, but also focus on the improvement of customer perception level, only in this way can effectively promote the consumer's willingness to buy, expand the awareness of DUIA online education brand and enhance the value of the public brand, increase the brand's market share and coverage, so as to establish the uniqueness of its own brand.

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A CORRELATIONAL STUDY OF TEACHERS' PERCEPTIONS TOWARD SCHOOL LEADERS' TRANSFORMATIONAL LEADERSHIP STYLES AND TEACHERS' SELF-EFFICACY AT GUANGXI PEIXIAN INTERNATIONAL COLLEGE IN CHINA

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Abstract: This study aimed to investigate the teachers' perceptions of the school leaders' transformational leadership style (four factors) and their self-efficacy at Guangxi Peixian International College in China. The study population included 192 full-time teachers who were in service in the 2021-2022 academic year. To determine the teachers' perceptions of the school leaders' transformational leadership style (four factors) and their self-efficacy, a quantitative correlational study design was used. The Multifactor Leadership Questionnaire (MLQ) and Teacher Self-Efficacy Scale (TSES) were used to assess the variables. The findings of the study showed that teachers had a modest level of perception of transformational leadership styles (four factors). The level of the teachers' perception of their work self-efficacy was moderate also. The findings revealed that teachers' perception of school leaders' transformational leadership styles (four factors) was significantly and favorably associated with teachers' self-efficacy, [($r = .54, p < .001$)] at a significance level of .05. Positive relationships were found between four factors. The one with the greatest "r" value for intellectual motivation. [($r = 0.513, p < .001$)] suggested the strongest association with teachers' self-efficacy. Hence, there was a significant association between the four aspects of transformational leadership style and teachers' self-efficacy at Guangxi Peixian International College, China.

Keywords: Transformational Leadership styles, Teachers' Self-Efficacy

Introduction

As proposed by various scholars and advocates, the study on the quality, characteristics, and attitudes and their impact on their professional performance and development can help shed light on how to ensure the success of any policies and implementation on school improvement and learning performance enhancement.

The role of teachers is crucial in the educational system, and there has been extensive study on

how school leadership might affect teachers' work. The findings show a strong positive link between teachers' self-efficacy and principals' instructional leadership techniques (Bellibas & Liu, 2017). Some researchers have found that transformational leadership is being discussed increasingly in leadership studies. As demonstrated by Nir and Kranot (2006), transformational leadership indirectly impacts teachers' self-efficacy. In the study by Hipp (1996), the function of transformational leadership was evaluated with the emphasis on the connection between principal leadership and teacher self-efficacy, and the findings confirmed that principals' transformational leadership is essential for teachers' self-efficacy.

1. Transformational Leadership Theory

Bass & Bass (2009) defines transformational Leadership as the kind of leader that, among other things, raises followers' feelings of self-worth in the workplace. Transformational leaders inspire and urge their followers to work toward the appropriate objectives. These leaders encourage their followers to take on more meaningful tasks, and followers frequently go beyond what they had anticipated and meant to undertake. Additionally, transformational leaders use efficient and reasonable techniques to inspire their followers and establish difficult expectations for them, which leads to better performance standards (Bass & Bass, 2009).

2. Four Elements of Transformational Leadership

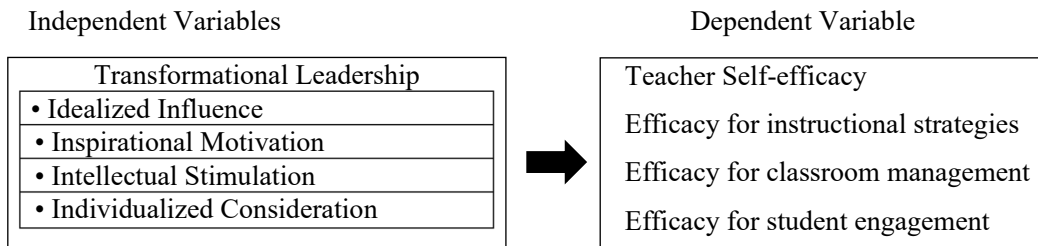
Bass and Avolio examined the transactional elements of transformative Leadership in more detail. The findings demonstrated that the four "I" factors were used to characterize the aspects that represented the fundamental elements of transformational Leadership. 1) Idealized Influence, 2) Inspirational Motivation, 3) Intellectual Motivation, and 4) Individualized Considerations are these four categories (Bass & Avolio, 1994). Idealized Influence: A leader uses high ethical and moral standards and strong personal charisma to gain the recognition, respect and trust of followers, and to get them to identify with and support the vision plan their advocates. Inspirational Motivation: Transformational leaders inspire followers by appealing to higher ideals and values. Intellectual Stimulation: Transformational leaders promote creative, innovative problem solving and a culture that encourages challenging the status quo. Individualized Consideration: Transformational leaders pay attention to each follower, valuing their individual needs, expectations and aspirations.

3. Teachers' Self-Efficacy

Bandura (1977) proposed the idea of self-efficacy. He proposed a theory of self-efficacy to explain the factors that lead to motivation in a particular scenario from the standpoint of social learning. An individual's subjective evaluation of their competence in a field of employment is known as self-efficacy. A person's motivation to behave will be immediately impacted by a positive or negative evaluation (Bandura, 1997). Tschannen-Moran and Woolfolk Hoy (2001) reviewed different major measures used to capture the construct and note the problems with each. They then present a promising new measure of teacher efficacy, together with validity and reliability data from three separate studies.

This scale from the Tschannen-Moran and Woolfolk Hoy (2001) study is used in the study for this study, which concludes with an analysis of the long and short scales of teacher self-efficacy. The results of these analyses suggest that the TESE can be considered reasonably valid and reliable. With 24 and 12 items respectively, it is of reasonable length and has proved to be a useful tool for Tschannen-Moran and Woolfolk Hoy (2001) in exploring the construct of teacher efficacy.

4. Conceptual Framework



Research Objectives

1. To examine the level of teachers' perceptions of school leaders' transformational leadership styles (in terms of Idealized Influence, Inspirational Motivation, Intellectual Stimulation and Individualized Consideration) at Guangxi Peixian International College, China.
2. To examine the level of teachers' perceptions of their self-efficacy at Guangxi Peixian International College, China.
3. To determine the correlation between the teachers' perceptions of transformational leadership styles (in terms of Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration) and their self-efficacy at Guangxi Peixian International College, China.

Literature Review

1. Transformational Leadership Styles

Bass & Bass (2009) discussed the characteristics of transformational leaders, making the case that these individuals frequently demonstrate high moral standards, serve as role models, take strategic risks, and inspire followers by being idealistic and motivating. These leaders offer purpose and difficulty. 1) They have a keen sense of mission and dedication, encourage teamwork, and look to a promising future. 2) Intellectual stimulation: They frame and reframe issues, challenge presumptions, and inspire peers and followers to think creatively and innovate. 3) Personal consideration: They consider the needs and abilities of individuals they work with and demonstrate concern for their well-being (Avolio & Bass, 2001). Shamir (1993) describes transformational leaders as those who can change the self-concept of their followers. Transformational leaders address their followers' feelings of self-worth, which is one of the things they do. Transformational leaders inspire their people to go beyond what they originally meant and imagined they would do. Leaders create high expectations and achieve higher performance (Bass & Bass, 2009). According to recent findings, transformational

leaders share essential aims of supporting competency development and engaging colleagues to strengthen personal commitment to organizational goals. Transformational leadership methods may spread widely throughout the business (Leithwood et al., 2004). Transformational leadership had very defined characteristics in which the transformational leader focuses on organizational goals and encourages followers to attain high organizational performance (Gregory Stone et al., 2004).

2. Teachers' Self-Efficacy

Over the past two decades, the number of studies on teachers' self-efficacy has grown, and it is now thought to be one of the most significant attitudes determining their professional behavior (Gibbs, 2003). Teachers' efficacy beliefs have become popular in self-efficacy study. According to May and Supovitz (2011), the capacity to effectively address the various issues that arise in teaching is also crucial. As a result, the more effective a teacher is, the more time he or she plans to devote to it, the better organized he or is, the more open he or she is to new ideas and methods, and the more enthusiasm for teaching he or she displays, frequently with a greater commitment to working with challenging students (Tschannen-Moran & Hoy, 2001). Teachers' self-efficacy can significantly influence classroom management, student behavior, and teaching quality. Ghaith and Yaghi (1997) also showed that teachers improved their ability to use creative teaching strategies as their evaluations of their efficacy as teachers grew.

Methodology

1. Variables

In this study, two survey questionnaires were adopted: MLQ (Multifactor Leadership Questionnaire) and TSES (Teachers' Self-Efficacy Scale). A series of translation and content validation procedures were designed and used to ensure accuracy of translation, simplicity of expression, ease of understanding and cultural adequacy.

Table 1: Reliability of the Instrument Multifactor Leadership Questionnaire (MLQ-5X)

	Cronbach's Alpha	
	Franco, Matos (2013)	Current Study
Idealized Influence (Attributes)	.719	0.919
Idealized Influence (Behavior)	.704	.919
Inspirational Motivation	.812	.930
Intellectual Stimulation	.758	.925
Individualized Consideration	.727	.957
Overall	.931	.952

Source: Leadership styles in SMEs: a mixed-method approach by Franco, Matos (2013)

As shown in Table 1, the researcher directly quoted data from previous researcher Franco and

Matos (2013) before using this questionnaire, as the reliability of this questionnaire MLQ (Multifactor Leadership Questionnaire) has been shown to be usable in previous articles and has excellent credit validity of 0.931. The reliability is excellent. That is why this researcher directly quoted this data. In the target schools, the researcher distributed 192 questionnaires and 192 were returned, which is a 100% return rate. After reliability analysis of the data, the questionnaire had a reliability of 0.952 in this study.

Table 2: Reliability of the Instrument Teachers' Self-Efficacy Scale

	Cronbach's Alpha	
	Tschannen-Moran and Woolfolk Hoy (2001) Original version	Current Study
TSES for Student Engagement	.86	.897
TSES for Instructional Strategies	.86	.897
TSES for Classroom Management	.81	.923
Overall TSES	.90	.915

Source: Teacher efficacy: Capturing an elusive construct. Teaching and Teacher Education by Tschannen-Moran & Hoy (2001).

As shown in Table 2, the researcher directly quoted data from previous researcher Tschannen-Moran & Hoy (2001) before using this questionnaire, as the reliability of this questionnaire TSES (Teachers' Self-Efficacy Scale) has been shown to be usable in previous articles and has excellent credit validity of 0.90. The reliability is excellent. That is why this researcher directly quoted this data. In the target schools, the researcher distributed 192 questionnaires and 192 were returned, which is a 100% return rate. After reliability analysis of the data, the questionnaire had a reliability of 0.915 in this study.

2. Data Collection and Analysis

The study was conducted in Guangxi, China. Data collection took place in November 2022. The questionnaires were distributed to teachers in the form of a web link after obtaining permission and consent from principals and teachers. The questionnaire was distributed with the consent of the principal of the target school, and due to the epidemic, the researcher was unable to print the questionnaire and give it directly to the teachers. Instead, the questionnaire was translated into Chinese and made available as a link for distribution. A total of 192 copies of the questionnaire were distributed. The number of returned questionnaires was also counted, examined and analyzed with the use of relevant software for descriptive statistics and correlational analysis.

Results

Research Question 1:

What are the levels of teachers' perceptions of school leaders' transformational leadership styles at Guangxi Peixian International College, China?

Table 3: Summary of the Total Mean and Standard Deviation Scores of Teachers' Perception of Transformational Leadership Styles (n=192)

	Items	Mean	SD	Interpretation
1-4	Idealized Influence	3.18	1.13	Moderate
5-8	Inspirational Motivation	3.22	1.11	Moderate
9-12	Intellectual Stimulation	3.07	1.11	Moderate
13-16	Individualized Consideration	2.98	1.10	Moderate
	Total	3.11	1.04	Moderate

It was found that there was a moderate level of variation in the four dimensions of transformational leadership style, and in this target school, teachers in this school had high perceptions of IM (Inspirational Motivation), one of the four dimensions of transformational leadership style, the teachers in the target school had the highest perceptions of the intellectual stimulation of the transformational leadership style of instructional leaders. The results of the study illustrate that in the target schools, the school leaders valued the needs of their subordinates, their growth, and their personal needs, expectations, and aspirations.

Research Question 2:

What are the teachers' perceptions of their self-efficacy at Guangxi Peixian International College, China?

Table 4: Summary of the Total Mean and Standard Deviation Scores of Teachers' Perceptions of Their Self-Efficacy (n=192)

	Items	Mean	SD	Interpretation
1-4	Self-Efficacy in Student Engagement	3.32	.77	Moderate
5-8	Self-Efficacy in Instructional Strategies	3.39	.74	Moderate
9-12	Self-Efficacy in Classroom Management	3.56	.76	High
	Total	3.42	.69	High

Table 4 showed that in Guangxi Peixian International College. Among the three dimensions of self-efficacy, the mean score of Self-Efficacy in student engagement is 3.32, Self-Efficacy in instructional strategies has a mean score of 3.39, and Self-Efficacy in classroom management has a mean score of 3.56. Among these three dimensions, the highest mean score is Self-Efficacy in classroom management, and the lowest mean score is Self-Efficacy in Student Engagement. The scores are in the middle level. Both scores were at the moderate level. Thus, teachers' overall perceptions of principals' leadership behaviors were only 3.42, which is considered moderate in the range of 2.51-3.50.

Research Question 3:

Is there a correlation between the teachers' perceptions of transformational leadership styles (in terms of Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration) and their self-efficacy at Guangxi Peixian International College, China?

Table 5: Summary of Correlation Between the Teachers' Perceptions of Their Self-Efficacy and Transformational Leadership Styles (n =192)

	1	2	3	4	5
1.Idealized Influence	-	-	-	-	-
2.Inspirational Motivation	.890** (<.001)	-	-	-	-
3.Intellectual Stimulation	.788** (<.001)	.852** (<.001)	-	-	-
4.Individualized Consideration	.779** (<.001)	.862** (<.001)	.831** (<.001)	-	-
5.Teachers' self-efficacy.	.420** (<.001)	.511** (<.001)	.450** (<.001)	.513** (<.001)	-

*Note**.* Correlation is significant at the 0.01 level (2-tailed).

To answer the study objective three, descriptive statistics was employed to measure the levels of teachers' perceptions on self-efficacy and transformational leadership styles. Pearson's product-moment correlation coefficient was then used to assess these two variables. Based on the explanation of the scale in Evan (1996), the scale range interpretation (0.00-0.19 = very weak, 0.20-0.39 = weak, 0.40-0.59 = moderate, 0.60-0.79 = strong, and 0.80-1.0 = very strong) was used to explain the strength of the correlation (r). The statistics showed that the correlation between teachers' self-efficacy and transformational leadership styles of school leaders' leadership was moderately strong [$r=.54$, $p<.000$]. The relationship between teachers' self-efficacy and transformational leadership styles of school leaders was significant because Sig. (2-tailed) was less than .05.

The results of this study, the statistical analysis of the correlation between teachers' perceptions of the four dimensions of the transformational leadership style of instructional leadership and their self-efficacy showed that the significance of the four dimensions of the transformational leadership style of instructional leadership among teachers in the target schools at the .05 level of significance was .00. This means that there is a significant relationship between teachers' self-efficacy and the four dimensions of transformational leadership. The relationship between the four dimensions of transformational leadership and teachers' self-efficacy is significant. A moderate correlation in a study finding refers to a statistical relationship between two variables that is neither weak nor strong but falls somewhere in between. Correlation measures the degree of association between two variables, indicating how changes in one variable are related to changes in the other.

When a study finding indicates a moderate correlation, it means that the correlation coefficient falls between 0.3 and 0.7 (inclusive) in absolute value. This suggests that there is a discernible relationship between the variables being studied, but it is not particularly strong or weak. A moderate correlation indicates that as one variable changes, the other variable tends to change in a consistent manner, but the relationship may not be overly predictable or influential.

It is important to note that correlation does not imply causation. While a moderate correlation indicates a statistical association, it does not necessarily mean that one variable causes the changes in the other variable. Further research and analysis are often required to understand the underlying factors

and mechanisms that may explain the correlation observed in a study.

Discussion

Damanik & Aldridge (2017) showed that teachers' perceptions of the headteachers' leadership style were positive. This is in line with the findings of the first research aim of this study. Building on the findings of previous researchers, the researcher conducted this study showed that teachers' perceptions of the transformational leadership style were positive and favorable. Ghaith and Yaghi's (1997) study showed that teachers' self-efficacy can significantly influence classroom management, student behavior and the quality of teaching. As teachers' ratings of their own efficacy increased, so did their ability to use creative teaching strategies. While Avanzi et al (2013) showed that efficacy beliefs are based on experience, teacher burnout and low job satisfaction can also undermine teachers' self-efficacy. Tschannen-Moran & Hoy (2001) argue that the more effective a teacher is, the more time he or she plans to devote to teaching, the more organized he or she is, the more open he or she is to new ideas and approaches, and the more enthusiasm he or she shows for teaching, often with a greater commitment to working with challenging students.

Recommendations

Although teachers' responses to school leaders' transformational leadership styles are very encouraging in this study. It is recommended that school leaders can continue to find ways to improve and enhance their leadership style and be prepared for any risks or challenges that may arise in the future. First, school leaders need to respect and understand the needs of their subordinates. Second, school leaders should develop themselves to be role models for teachers and subordinates. Third, school leaders develop a sharing vision with teachers and their subordinates. Although teachers in the target schools perceived their self-efficacy to be moderate, especially in the area of classroom management, teachers in the target schools reaped a higher level of self-efficacy in this area compared to the other two factors. Therefore, it is recommended that teachers in the target schools improve their self-efficacy in the area of instructional strategies and student management. First, teachers can improve their teaching strategies in the classroom by effectively enhancing teacher-student interaction and refining lessons. The second is that teachers can strengthen student management and create a harmonious atmosphere in the teacher-student relationship. Similarly, it is suggested that future researchers could analyse the link between transformational leadership styles of school leaders and teachers' self-efficacy from a wider range of perspectives and draw different research conclusions.

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EXPLORING TEACHERS' PERCEPTIONS ON TEACHER IDENTITY IN AN INTERNATIONAL DEPARTMENT OF A PUBLIC HIGH SCHOOL IN KUNMING, YUNNAN, CHINA

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Abstract: The study used a questionnaire to investigate the perception of teacher identity among 38 full-time teachers in the international department of a public high school in Kunming, Yunnan, China, in 2021 (March to August). The questionnaire includes four dimensions: Motivation, Self-Image, Self-Efficacy, and Task Perception. Descriptive statistics were applied in the process, and the results show that 1) The teachers in the international department of the selected school have a high level of teacher identity, with an overall average was 3.90. 2) Among four components of teacher identity, the mean of Self-Image (4.08) scored the highest and was regarded as a high level. In contrast, the mean of Motivation (3.70) scored the lowest, also regarded as high. Finally, the researcher discusses the findings and makes recommendations, including encouraging governments and schools to pay attention to the importance and development of teacher identity. For teachers, establishing a positive teacher identity is essential and the key to improving classroom practice. School administrators should consider incorporating teacher identity into the school's sustainable development strategy, clearly identifying the needs of teachers, and assisting teachers in professional development and training.

Keywords: Teacher Identity, International School, Professional Development

Introduction

According to the Chinese Education Modernization Plan 2035 (Ministry of Education of the People's Republic of China [MOE], 2019), educational modernization and international cooperation are essential strategies to promote education reform in China. It also mentioned the need to establish a modern education system and improve international schools' teaching quality. The internationalization of Chinese primary education is developing rapidly, and it has gradually changed from a one-way learning activity where teachers and students exchange teaching with Western developed countries to a two-way exchange and innovation stage of management cooperation. In the context of global education reform, the direction of teachers' professional development has gradually changed from single training to professional learning (Opfer & Pedder, 2011), and training models and methods have emerged in an

endless stream.

International schools in China are mainly composed of private schools and international departments of public schools. The difference between international and mainstream schools is that international schools have high tuition fees, varying management systems, unbalanced regional development, and high teacher turnover. Affected by COVID-19, the development of the international education industry has shown uncertainty. International school administrators began to rethink the strategic planning of school development. Chinese international schools face structural adjustment and transformation (Zhang, 2021), including adjusting the ratio of Chinese and foreign teachers, curriculum, and teaching methods.

Several studies on teacher education emphasize that understanding teacher identity is the foundation for professional development (Rodgers & Scott, 2008). Teacher identity involves realizing a teacher's characteristics in a specific teaching environment. The stable teacher identity is associated with teaching quality, organizational commitment, job satisfaction, and school climate (Beauchamp & Thomas, 2009). According to Vloet (2015), teacher identity development benefits beginning teachers and provides more individualized support for experienced teachers. However, research on teacher identity in international schools is limited, and most research targets are primary and secondary school teachers (Beijaard, Meijer, & Verloop, 2013). Based on the school-running system of international schools in China, the researcher believes there are different perspectives on teacher identity between international schools and mainstream schools, especially the international departments of public schools.

The selected public high school was founded in 1907 and is one of only a few hundred-year-old elite schools in Yunnan Province. In 2011, the Education Department of Yunnan Provincial formally approved the setting up an International Department in this high school. And the International Department provides courses to help students develop the academic abilities and comprehensive adaptability needed to study abroad and complete the transition from Chinese to a Western teaching style. Hence, the researcher selected this school as the target to explore teachers' identity.

Research Objective

The purpose of this study was to determine the teachers' perceptions of teacher identity in an international department of a public high school in Kunming, Yunnan, China.

Literature Review

Identity is a complex concept resulting from a person's self-references on themselves and different societal positions. Particular identities have certain behaviors or rights. Affect Control Theory (Heise, 1987) and Identity Theory (Stryker, 2000) are fundamental theories. Based on these theories,

Burke (1991) proposed Identity Control Theory, then Burke and Stets (2009) supported quantitative measures of Teacher Identity, that people's identities are composed of individual and social identities. When the social environment and time change, the identity will also differ. He also emphasized that Identity Theory can be combined with Social Identity Theory to understand teacher identity. Thus, teacher identity means internal and external factors such as individuals, groups, and environments affect teacher identity.

There is much research on teacher identity, but the opinions of the researchers are different (Davey, 2013). Beijaard et al. (2004) believed that teacher identity refers to developing self-awareness and understanding of teachers, including attitudes, values, and commitments. Teacher resilience is strengthened when the early career engages with success in self-reflection and self-understanding processes that allow for the emergence of a solid teacher identity. Teacher identity is uncertain and explored in various teaching methods because identity is constructed in the social environment (Mitchell & Weber, 1999).

In the entire career of teachers, identity changes over time under the influence of individual internal factors, significantly when the school environment and students change; teacher understanding of their identity will change accordingly, as work and life experiences in specific contexts (Rodgers & Scott, 2008). Therefore, teacher identity refers to how teachers view themselves, which is constantly explaining who he is and who he wants to be. Moreover, how they view others with whom they engage, including colleagues, students, and leaders. Whether teachers can correctly recognize their own identity and produce a positive identity is not only related to teachers' educational philosophy but also affects teaching behavior, thus affecting the outcome and quality. To promote professional development and enhance teacher commitment, it is meaningful to explore teacher identity.

In a traditional classroom, the teacher is the leader of the class. Richards (2006) called the traditional role the default identity. This type of teacher identity typically reflects their experience of observation and involvement as a student. Usually, inexperienced junior teachers may adopt this approach because it provides a certain level of structure to make a class run well. However, in the transformational classroom, the teaching mode changes to student-centered, and teachers with different cultural and educational backgrounds may have different practices. Some young teachers feel that adhering too strictly to formal teacher roles may not be effective because it prevents the development of good relationships with students, which may sometimes conflict with teachers' understanding of their own identities (Pennington & Richards, 2016). At the same time, teaching experience impact on the development of teacher identity. Novice teachers often go through the process of transforming from learner to teacher. In this process, they use their former teachers as role models and imitate teaching in the classroom. (Cardelle-Elawar & Lizarraga, 2010; Lojdová & Nehyba, 2021). Furthermore, School requirements and policy may also influence teachers to maintain a relatively formal and impersonal role with students. Therefore, how to balance the status of teachers is a problem they need to consider.

As Beijaard et al. (2004) emphasized, research on teachers' identity in 1998-2004 focused mainly on three aspects: the training of the professional identity of teachers, the characteristics of the professional identity of teachers, and the stories describing the professional identity of teachers. Later, scholars began to pay attention to teacher identity from a more diversified perspective. Previous studies have shown that teacher identity is influenced by many factors, including culture and educational background, teaching methods, students, and school environment (Pennington & Richards, 2016). Canrinus et al. (2012)' study identified that teacher professional identity could also be obtained through self-efficacy, job satisfaction, motivation, and professional commitment. And Ballantyne and Grootenboer (2012) determined the correlation between teacher identities and discipline.

Avraamidou (2016) has identified three characteristics of the teacher identity, including the identity of teachers being socially constructed, the identity of teachers being dynamic and fluid, and reformed, and the identity of teachers being complex and multiform. Hanna et al. (2019a) assessed the composition of teacher identity from 20 studies conducted between 2000 and 2018, then found 59 components in total, which they developed into their model divided into motivation, commitment, self-image, job satisfaction, task perception, and self-efficacy. Hanna et al (2020) modified the scale developed in 2019 and compressed the original six dimensions into four dimensions: Motivation, Self-Image, Self-Efficacy, Task Perception. Weran and Kuswandono (2021) investigated the relationship between personal identity and professional identity of primary school teachers, and the results showed that there were five differences between these two types of teacher identity.

Methodology

This research applied the quantitative method. A questionnaire including four dimensions: Motivation, Self-Image, Self-Efficacy, Task Perception was distributed to 38 teachers in the international department of selected public high schools to identify teachers' perceptions of teacher identity. Five-point Likert scale: (A) 1=strongly disagree; (b) 2=disagree; (c) 3=neutral; (d) 4=agree; (e) 5=strongly measured each item in the questionnaire. Thirty-eight questionnaires were distributed online, and all were returned, with a recovery rate of 100%.

The questionnaire was divided into two parts: Part 1 was the demographic data of the teachers, in this part, including gender, age, educational background, and teaching experiences. Part 2 was the Teacher Identity Questionnaire. The researcher referred to Hanna et al., (2020)'s 46-Item scale and finally included four dimensions. Motivation was measured using the Fit-Choice scale (Watt & Richardson, 2007) from 8 items. Self-Image was measured by 8-Item from Physicians Scale (Starr, 2006). Self-efficacy was using the short version of the teacher's Self-Efficacy Scale (Tschannen & Hoy, 2001), and Task Perception was using Denessen's scale (2000).

Results

The research objective of this study was to determine teachers' perceptions of teacher identity in the international department of a public high school in Kunming, Yunnan, China. A total of 38 teachers participated in this research survey. Table 1 shows the Means and Standard of teachers' perceptions on teacher identity based on four components were 3.90, which is in the range of 3.51- 4.50, interpretation was high level in general. Among them, the mean of Self-Image (4.08) scored the highest, and regarded as a high level, while the mean of Motivation (3.70) scored the lowest, also regarded as high level.

The frequency distribution and percentage in Table 2 below summarize the demographic findings. Teachers' gender (N = 38) identified as male accounted for 39.47% (15), and female accounted for 60.53% (23). Therefore, the numbers of female teachers were more than male teachers. The age range of the teachers was: 42.11% (16) 30-39 years old, which is the highest percentage of the total population. According to the personal communication with school leaders, they mentioned that the school hopes to bring new strength and change to school reform by recruiting young teachers. The high level of education was divided into three levels: Bachelor, Master, and Doctoral degrees. 24 of them (63.16%) were with master's degrees, which was the majority group of the total population. From the perspective of teaching experience, five years and above accounted for 39.47% (15), the highest percentage of the total population.

Table 3 shows the means and standard deviations of teachers' perceptions towards teacher identity on Motivation were 3.70, on a scale of 3.51- 4.50. Among these eight items, "School holidays will fit in with family" and "Teaching will allow me to influence the next generation" gained the same high mean score was 4.10. "I was unsure of what career I wanted" gained the lowest mean score was 2.34 in the scale of 1.51-2.50, which in the level of low.

Table 4 shows the means and standard deviations of teachers' perceptions towards teacher identity on Self-Image were 4.08, on a scale of 3.51- 4.50. Among these eight items "I think it is valuable to be able to talk about education." gained the highest mean score was 4.39 regarded as high level.

Table 5 shows the total mean scores of teachers' perceptions towards teacher identity on Self-Efficacy were 3.90, on a scale of 3.51-4.50, which is a level of high. The question item "You can help your students' value learning" had the highest mean score 4.07, in the 3.51-4.50 interpretation and the level was high. Moreover, the item "You can implement alternative strategies in your classroom" had the lowest mean score, which the mean score was 3.76 and the level was high.

From Table 6, the total mean scores of teachers' perceptions towards teacher identity on Task Perception were 3.95, on a scale of 3.51-4.50, which is level high. Moreover, item "In my class, I think it is important that children have a say" gained the highest mean score was 4.47 on a scale of 3.51-4.50, which is level high.

Table 1: Means and Standard Deviations of Teachers' Perceptions towards Teacher Identity (N=38)

Teacher Identity	Mean	SD	Interpretation
Motivation	3.70	.457	High
Self-Image	4.08	.435	High
Self-Efficacy	3.90	.447	High
Task Perception	3.95	.456	High
Total	3.90	.448	High

Table 2: Demographic Percentages of All Survey Participants (N=38)

	Number	Percentage (%)
Gender: Male	15	39.47
Female	23	60.53
Age: 20-29	13	34.21
30-39	16	42.11
40-49	6	15.79
≥ 50	3	7.89
Education Background: Bachelor Degree	7	18.42
Master Degree	24	63.16
Ph.D. Degree	7	18.42
Teaching Experience: Less than One Year	9	23.68
One but Not More than Five Years	14	36.84
Five Years and Above	15	39.47

Table 3: Means and Standard Deviations of Lecturers' Perceptions towards Motivation (N=38)

NO	Items	Items	Mean	SD	Interpretation
1	4	School holidays will fit in with family.	4.10	.863	High
1	6	Teaching will allow me to influence the next generation.	4.10	.763	High
3	7	Teaching is perceived as a high-status occupation.	4.05	.769	High
4	5	I have the qualities of a good teacher	4.02	.677	High
5	2	Teaching will offer a steady career path.	3.92	.941	High
6	3	Teaching will provide a reliable income.	3.71	.897	High
7	8	I had good teachers as role models	3.34	1.046	Moderate
8	1	I was unsure of what career I wanted	2.34	1.097	Low
		Total	3.70	.457	High

Table 4: Means and Standard Deviations of Lecturers' Perceptions towards Self-Image (N=38)

NO	Items	Items	Mean	SD	Interpretation
1	7	I think it is valuable to be able to talk about education.	4.39	.547	High
2	8	Teaching will allow me to influence the next generation.	4.23	.675	High
3	5	I frequently talk to peers about teaching.	4.18	.800	High
3	6	I feel part of a community of this international school's teacher.	4.18	.766	High
5	3	I truly enjoy teaching.	4.13	.777	High
6	1	I see myself as an international school teacher.	4.00	.697	High
7	4	I actively have looked for opportunities to work in international schools.	3.89	.798	High
8	2	I enjoy sharing ideas about teaching.	3.63	.674	High
		Total	4.08	.435	High

Table 5: Means and Standard Deviations of Lecturers' Perceptions towards Self-Efficacy (N=38)

NO	Items	Items	Mean	SD	Interpretation
1	7	You can help your students value learning.	4.07	.486	High
2	2	You can provide an alternative explanation and example when students are confused.	4.05	.655	High
3	5	You can make children follow the classroom rules.	3.94	.566	High
3	4	You can control disruptive behavior in the classroom.	3.94	.517	High
5	6	You can convince students that they can do well in schoolwork.	3.86	.577	High
6	8	You can motivate students who show low interest in schoolwork.	3.84	.593	High
7	1	You can use a variety of assessment strategies.	3.76	.819	High
7	3	You can implement alternative strategies in your classroom.	3.76	.675	High
		Total	3.90	.447	High

Table 6: Means and Standard Deviations of Lecturers' Perceptions towards Task Perception (N=38)

NO	Items	Items	Mean	SD	Interpretation
1	7	In my class I think it's important that children have a say.	4.47	.687	High
2	4	I think it is my most important task to transfer students' values and norms.	4.34	.814	High
3	6	I think it is important to take into account the wishes of my students.	4.31	.661	High
3	5	In addition to my teaching duties, I also have an educational task.	4.07	.712	High
5	3	I think it is my main task to introduce students to different cultures and religions.	3.73	.860	High
6	8	I think it's normal for students to criticize me as a teacher.	3.65	.966	High
7	1	I think it is my most important task to teach students a critical attitude towards society.	3.57	.792	High
8	2	I think it is my main task to teach students social skills.	3.44	.724	Moderate
		Total	3.95	.456	High

Discussion

According to the results of this study shows that the teachers' perceptions of teacher identity was high (3.90) in the international department of a public high school in Yunnan, China. Teachers regarded the highest attitude towards teacher identity on self-image in the selected school. This analysis supports the study of Hanna et al. (2019a) and Burke and Stets's theory. According to the four components of teacher identity findings, teachers' perceptions of motivation are high, but the score could be higher.

The components of motivation, "School holidays will fit in with family" and "Teaching will allow me to influence the next generation," these two options regarded as high (4.10). The reverse question, "I was unsure of what career I wanted," had the lowest mean score (2.34). This analysis supports Van Lankveld et al.'s (2017) research on teachers' career planning. Teachers have a clear career direction and indicate that they want to be teachers. As for teachers, the first step in establishing a teacher's identity is to know who you are and why you choose this job. When teachers are more motivated, they tend to experience better workplace happiness, and their students tend to be motivated

to learn. “I have good teachers as role models” has an average score of 3.34, which is in the moderate level. According to the results, teachers in this international department have the opportunity to share their educational philosophy and influence students through their teaching practices. The reasonable working arrangements, salaries, and positions all encourage teachers to have high motivation. However, teachers feel that they lack a good teacher role model, which may be related to the teacher professional development system in the school. The “Teaching will offer a steady career path” is regarded as high (3.92), but it is at the bottom of the motivation part. The lack of teacher model guidance will also affect teachers career path decisions, thus teachers' career development in schools may still need to be clarified.

The teachers' perceptions of teacher identity on self-image were at the highest of the four components (4.08). “I think it is valuable to be able to talk about education.” regarded the highest mean score (4.39) “I enjoy sharing ideas about teaching” had the lowest mean score (3.63). Self-image refers to the teacher's perception of own ability, identity, and role from a subjective perspective. In this international department, the teachers understand “what a teacher should be like.” They are willing to discuss classroom instruction with their peers, and they also feel that teaching can impact students. Affected by some factors, teachers' perceptions toward sharing teaching ideas scored lowest in self-image part (3.63). Teachers are hindered from sharing and discussing teaching ideas, and if schools lack or do not have a comprehensive, professional teacher development system. Teachers will be more inclined to start conversations with their familiar peers instead of sharing among the whole teacher community, On the one hand, there may be a lack of opportunities and scenarios for sharing. On the other hand, the lack of leaders will also affect the organization of activities.

The teachers' perceptions of teacher identity on self-efficacy were high. “You can help your students value learning.” had the highest average score (4.07). “You can use a variety of assessment strategies” and “You can implement alternative strategies in your life classroom” had the lowest average score (3.76) but was still at a high level. Teachers agree that they can help students pay attention to learning, and teachers show high recognition in encouraging students to follow classroom rules, control classroom misbehavior, and cooperate with schoolwork. However, teachers' perceptions of “Various assessment strategies available” and “Implementing alternative strategies in the classroom” had the lowest mean score (3.76). Teachers are uncertain about adopting teaching strategies, which may be related to the difficulty of discussing teaching ideas and the lack of good teacher guidance.

The teachers' perceptions of teacher identity on task perception are regarded as high. “In my class I think it's important that children have a say” had the highest average score (4.47). “I think it is my main task to teach students social skills.” had the lowest mean score (3.44). In this component, teachers gave low recognition to teaching students social skills. Teachers feel that they may be more inclined to other teaching tasks than developing students' social skills and critical thinking.

Conclusion

Firstly, the study focused on a department with 38 teachers. Thus, the result can only show some of the teachers' perceptions in the area, and the reliability and validity of the questionnaire need to be reconfirmed in this study. Secondly, due to the limited total number of populations, the researcher did not divide the nationality of the teachers in the demographic part. To identify the level of teacher identity perception of Chinese and foreign teachers more clearly, the researcher would recommend that future researchers include nationality in the demographic factors survey. Then, this study only focuses on several factors that affect teacher identification, and it can only prove that the school's teacher identification is at a relatively high level in these items. However, many other factors affect teacher identity, and most of these studies are concentrated in the Western. Further research is needed to determine whether these theories and models are applicable to Chinese schools. Moreover, the research also recommends that researchers studying this topic in Yunnan Province try to expand the sample to both public and private schools in the future.

Since the surrounding environment influences teacher identity, including but not limited to the type of the educational institution, policies, colleagues, students and parents, and school culture, school leaders should incorporate teacher identity into teacher preparation programs, help novice teachers meet challenges, and help experienced teachers develop solid professional skills while feeling confident.

Another recommendation is that international school teachers must objectively understand themselves, regularly self-evaluate their work performance, constantly adjust their mentality to relieve professional pressure, and build a positive self-identity. According to the survey results, this school has many teachers under the age of 40. According to the school's human resources information, new teachers are recruited every year, including Chinese teachers and foreign teachers. This may make it difficult for young lecturers to integrate into the working group in the short term. The school's teacher training plan also poses challenges. Some teachers are unable to identify themselves or control the classroom. Colleagues share teaching experience with each other to help teachers prove their identity while building mutual trust and confidence. When teachers can imagine their careers as teachers, the identity of teachers will be strengthened. In this regard, old colleagues who are teaching-based seem to be role models for young teachers. However, if teachers only see limited career opportunities, their future potential as senior teachers are limited. Therefore, another suggestion for teachers was that they need to regularly self-evaluate their performance, improving cooperation with colleagues, enhancing group cohesion, and focusing on their own professional development.

The characteristic of international schools is to cultivate students' success with a broad vision, so that each student can get personalized development. The development time of China International Schools is relatively short, and a comprehensive education system has not yet been formed. These schools not only recruit foreign students, but also prepare Chinese students to go abroad. In this context,

teachers need to train students to understand and respect different cultures and values, and at the same time, they must also complete the set teaching goals. Teachers are not educational tools, and their responsibility is not only to transfer knowledge, but to bring positive energy to students' emotions, thoughts, and behaviors. Teachers in international schools seem to have more responsibilities and need to put in more passion. Therefore, teachers should care for themselves, constantly adjust themselves and cope with pressure, improve job satisfaction, and establish teacher identity. The researcher suggested that teachers actively communicate with the school to reflect their opinions so that school administrators can develop better management systems. At the same time, leaders can better understand the situation of teachers and help teachers conduct professional development and teacher training.

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VOCABULARY USAGE RESEARCH: EFFECTIVE WAYS TO BUILD WORD SKILLS ACROSS THE CURRICULUM

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Abstract: This study has as a base for understanding the fact that vocabulary development is a multifaceted challenge that involves the incorporation of several aspects of learning development, including working with varied talent levels, from native speakers of English to those for whom it may be a second or even third language. The need to develop skills across a broad range of subject areas for twelve years of schooling and beyond is a challenge the modern teacher of any discipline must rise to accept. Not only is there a need to develop word skills across the four broad areas of English and Literature, Math, Science, and the Humanities, but there is a corresponding and pressing need to integrate these areas and make the learning accessible to students of varied competency. The present study looks at these challenges through the lens of current literature on these issues.

Keywords: Word Skills, Vocabulary, Core Curriculum, Learning Accessibility, Competence

Introduction

Teachers at all levels of the teaching and learning process; from working with young children in kindergarten through elementary and to the levels of seniors in secondary school, are constantly faced with the challenge of how to get the core curricular vocabulary across to their students in a manner that will stick with them, allowing for the development of subject knowledge. Further, there is also an ongoing need to use core vocabulary as a tool to facilitate the incorporation of additional knowledge and allow for complexity of ideas to be comprehensible as subject knowledge is enhanced. Knowledge is based on definition; without definitions one cannot even verify the existence of something. It has often been said, connectedly, that reading is the foundational academic skill.

The truth of this is enhanced by a related truth, which is that when students have inculcated core vocabulary of a subject area into their personal knowledge base, they will then have a lifetime tool for building additional knowledge in that subject and related sphere of inquiry. The building, then, of a bank of these core terms, will allow the student to have a foundational base where further ideas can be

applied and studied. Association in learning involves taking what the student is learning and relating it to something already known, and when there is a strong, comprehensive base of terminology in a subject, or better, a series of related subjects, this base becomes broader and serves the student in a wider range of ways as additional ideas are applied over time.

This study looks at what the literature shows about building word skills and knowledge across the curriculum. The study investigates these research questions according to prevalent documents:

1. What are proven approaches for building vocabulary and word usage skills in mathematics?
2. What are proven approaches for building vocabulary and word usage skills in science?
3. What are proven approaches for building vocabulary and word usage skills in English and literature?
4. What are proven approaches for building vocabulary and word usage skills in the humanities?
5. How can these areas be integrated in terms of word skills to provide a holistic learning experience?

Since online databases are updated more frequently and are therefore timelier than physical copies are typically, document research, especially when using databases, has grown in importance in education. Additionally, refining searches is easier and more efficient. (Ari, Jacobs, Irvin & Walker, 2019). Thus, the foundation for conducting this kind of research has been built. Since the first half of the previous century, a plethora of texts on educational themes have become available to use as a foundation for document research. (McCulloch, 2004). Recent advances have witnessed an increase in the systematic and widespread usage of educational documents. (Gross, 2018).

Research Question 1: What are proven approaches for building vocabulary and word usage skills in mathematics?

The teacher must practice utilizing the language if they want pupils to do the same. Language needs exposure. Students will hear the terms as often as possible if they are used regularly, which will increase their comfort level. Make sure to correct a student when they misuse a vocabulary word. A "denominator" is used instead of the "bottom number." Confirm concepts such as, "What does surface area mean?" before moving on to problem-solving. Another technique to improve math vocabulary is to annotate questions or word problems. Every time the student reads the word "percent," write "/100" to remind the learner that it means "out of 100." (Brack, 2023)

Word puzzles are notoriously complex, especially when convoluted phrasing obscures the question's intended meaning. Require the entire class to read closely in order to make sense of word problems before pupils proceed to solve them numerically. Together, they select the most important words to use in a written response. A tried-and-true method is for a group to solve word puzzles together. A 3-read protocol is used by teachers at Concourse Village Elementary School in New York City: The word problem is first read aloud to the class without any numbers, after which students read the entire

problem alone and highlight important terms before reading it aloud as a class. The 3-read procedure emphasizes "what they're reading and helps to build their fluency," according to Blair Pacheco, a teacher who has used the method with students. (Noono, 2022)

Play a vocabulary-spotting game. Throughout the course of the lesson, instruct pupils to look out for arithmetic vocabulary words. Create a sign or gesture that students can use to indicate when they see or hear a word used in a Number Talk or Do Now. Make it a friendly contest and give out rewards. This activity can develop into its own vocabulary routine that will encourage participation and keep the learning process moving forward if it is made short and simple to implement. (Bergman, 2022)

There are many homophones in the lexicon of mathematics, which can easily confound students who are unfamiliar with their meanings. Consider the word "mean" alone. The vocabulary word for students may have a dictionary explanation or significance, or it may simply indicate a person who isn't particularly kind. However, when they take out their arithmetic books, mean suddenly implies something quite else. This is true for all learners, but it can provide a particular challenge for those learning the English language. (Smith 2022)

Make a diary of key words with your children. They have the ability to write a word, define it in their own words, and provide an example. Because you want the kids to reflect on the meaning and demonstrate understanding, avoid providing definitions to copy. To ensure that students have all the necessary details, talk about the definitions the students came up with, have them share (as well as teacher definition), and then offer them the chance to revise or supplement their own definition. (Porter 2022)

Fun vocabulary game: Don't Say It! is a great way for pupils to improve their vocabulary. Students are given a vocabulary assignment for this game, and they must help their teammates correctly guess the vocabulary term by providing hints. The problem? Each card has four extra words that they CANNOT pronounce. For students to succeed, creativity and solid language knowledge are essential. Create your own cards for this game. It would be entertaining to use a few cards at a time as a warmup during the school year, or to play this at the end of the year to prepare for final exams. (Kerrie, 2021)

Further, there's the issue of varied meanings of words in math versus other subjects, where those differences must be clarified, as John Dabell (2023) explains,

Clearly pupils have a lot to cope with when they are sifting and sorting words from the everyday non-mathematical language they encounter, then 'translating' it in a math context. Here are some KS2 math examples that you might have come across in your own primary math teaching:

Acute angle – acute pain

Borrow (in subtraction) – borrow (lend)

Bracket () – bracket (shelf)

Cancel (fraction) – cancel (ticket)

Capacity (volume) – capacity (potential)

Carry (addition) – carry (a bag)

Degree (°) – degree (BSc)

Expression ($xy + 3$) – expression (on a face)

Factor ($15 = 5 \times 3$) – factor 5 sunscreen, X-factor

Irrational (number)

Mass (in kg) – mass (in church)

Mean (average) – mean (nasty)

Negative (-7) – negative (critical)

Rational (number) versus rational (logical) thinker

Solution (solve) – solution (dissolve)

Take away (subtract) – take away (food)

Teachers can directly monitor and help pupils in their interpretations of language by being aware of lexical ambiguity in the words used. Teachers need to think twice about the words used but also leverage this ambiguity as a learning opportunity, to ‘translate’ familiar words into math. (Dabell, 2023)

Research Question 2: What are proven approaches for building vocabulary and word usage skills in science?

Techniques for science that involve concept mapping have been deemed successful in many cases, as Huddleston (2020) clarifies:

Thinking about how terms are connected is much deeper than simply defining the terms. You can do this easily by writing some terms on index cards. In groups, students determine how the terms are connected then explain their reasons aloud or on paper. They might also write on the arrows to show the connections. (Huddleston, 2020)

Students receive specialized teaching on scientific terminology, making connections between terms and prior knowledge using both concrete and multimedia materials. New terms are meaningfully categorized by students. By reading about the terms, writing down their definitions, or hearing the teacher use them, they won't fully comprehend and retain them. The right use of scientific terminology is something that teachers help students with. Examples of such vocabulary include evidence, analyze, explanation, prediction, infer, and environment. These academic terms, which include terms like endosperm, magma, and ion, have particular applications in science and ought to be taught alongside it. Scientific journals, commercial books, internet resources, entertaining scientific novels, listening stations, and more are all available for students to use as needed in the classroom. (Anderson, 2021)

If students have a solid grasp of root terms, they will be better able to remember science jargon. As an illustration, photosynthesis can be explained by breaking it down into simpler concepts like photo

= light, synth = make, and isis = process. By doing this, a teacher can increase the likelihood that students will recall that photosynthesis has something to do with light and the creation process. Include a brief explanation when introducing vocabulary. (Harville, 2021)

Here is a process for verbal science vocabulary integration:

While I am giving notes and we are learning new vocabulary, I make students say the words out loud with me. This is HUGE for your ESL students, so don't skip it! Even if you teach high school and you are thinking "they'll never do that..." trust me, they'll do it. They would rather practice saying it correctly than look silly pronouncing it wrong in front of their peers because you didn't give them an opportunity to practice. In class it usually looks something like this:

Teacher: "Here is a new vocabulary word (shows word up on the board). Anyone want to try and guess how it is pronounced?"

Your Most Talkative Student: "Auto-troffff?"

Teacher: "Good one! It's pronounced autotroph. Can everyone repeat after me? Autotroph" (I point at myself when I say it) (Fanucci, 2022)

Now to examine the best way to impart a notion like mutualism. It serves as an illustration of how to teach this idea and the term in question through exploration. Give students simple ways to engage with an ecological community. For instance, the zebra is killed and eaten by the lion. Alternately, bees may gather nectar from blossoms and disperse pollen as they move from bloom to flower. Be careful not to say who gains, helps, or is injured as a result of the contact. By recognizing patterns, the students sort the stack of cards. This is a fantastic way to incorporate a cross-cutting concept, too! They learn about the idea of mutualism and other community interactions through this card sorting activity. (Sadler & VanTassel, 2022)

Process and content vocabulary deserve equal attention in science teaching. Consideration of the part science process vocabulary and science content vocabulary play in the formation of overall science vocabulary has been promoted by recent publications concerning content literacy versus disciplinary literacy. What scientific terms, such as "observe," will students need to comprehend in order to help them build their scientific process knowledge or their ability to speak the scientific language? The terms "develop," "interpret," "analyze," "design," and "construct" are examples of more process words. And which key terms—like adaptation or natural selection—will students need to comprehend in order to help them build their science topic knowledge? Although content terms will differ from unit to unit, they should be connected to the disciplinary fundamental principles. (Nelson & Allen, 2020)

Prefixes, such as hypo- (below), hyper- (above), cyclo- (ring), poly- (many), endo- (inside), and exo- (outside of), appears at the beginning of words. Roots are words with meanings on their own. They frequently make up the bulkiest section of a word. Greek and Latin roots are frequently found in scientific terms, such as chloro (green), iso (equal), allo (other), and com (together). A word's suffix,

such as -ane (saturated hydrocarbon), -phillic (love, affection), -phobic (hate, fear), or -lysis (decompose, breakdown), adds information to the term. By dissecting new words into their component elements, you can assist kids in understanding new vocabulary. Make connections between unfamiliar and new words in vocabulary. Encourage children to make the connection between the words and the ideas they describe. (Fleck, 2019)

Students sometimes find it challenging to understand the meaning of logical connectives like “such,” “because,” and “notwithstanding,” which scientists employ to connect scientific ideas. In this connection, try giving out a list of logical connectives that are ordered by increasing difficulty so that students become familiar with all the phrases encountered. It's crucial to keep in mind that concepts cannot be understood separately; for instance, comprehending the phrase power requires understanding the terms work and energy. (Chandler-Grevatt, 2019)

However, by excluding their methods of communicating and making meaning, science learning environments that prioritize academic language and school-based, English-only modes of speaking can exclude emergent bilingual children. A student may unnecessarily disassociate themselves from the scientific endeavour as a result of such a method. All students have communication tools with them when they enter the classroom. The majority of learners are able to use a variety of communication techniques (such as several languages, registers, and gestures) as they move through various contexts. Teachers' ought to expand on these tools. Students have more possibilities to reason and communicate when their learning environments encourage a greater variety of talking styles. They are also more effective and inclusive. Students' participation may be restricted if only a few communication tools are permitted in the classroom (for example, languages and registers). (Suarez, Bell, McCulloch, and Starr, 2014)

Research Question 3: What are proven approaches for building vocabulary and word usage skills in English and literature?

In English, when introducing new terms, try to use cognates (words from many languages that have a similar meaning, spelling, and pronunciation). You can also encourage students to recite or draw their own definitions of the words in English or their native language to help them comprehend each word and its meaning. Reflect: Give pupils some time to consider what they already know or don't know about the words. There will be a range of vocabulary levels among the students when they enter the lesson. You can read the text aloud to your pupils or let them read it independently while listening to an audio version. Take a moment to describe the word pieces by pointing to the vocabulary words in context. (Lyon, 2023)

Visuals: This is possibly the best technique to introduce new language because pictures and drawings are fairly universal and generally understood. There are numerous stock photo websites to choose from, and the internet is brimming with images. If you're good at sketching, you can produce

your own pictures or characters, but if you don't have access to a SMART board, make sure they're big enough for everyone to see properly. Keep your images and sketches simple in order to avoid confusing students who might be looking at them. (Seigel, 2022)

The British Council uses a series of protocols for the presentation of vocabulary:

Ways to present vocabulary.

There are lots of ways of getting across the meaning of a lexical item.

Illustration

This is very useful for more concrete words (dog, rain, tall) and for visual learners. It has its limits though, not all items can be drawn.

Mime

This lends itself particularly well to action verbs and it can be fun and memorable.

Synonyms/Antonyms/Gradable items

Using the words, a student already knows can be effective for getting meaning across.

Definition

Make sure that it is clear (maybe check in a learner dictionary before the lesson if you are not confident). Remember to ask questions to check they have understood properly.

Translation

If you know the students' L1, then it is fast and efficient. Remember that not every word has a direct translation.

Context

Think of a clear context when the word is used and either describe it to the students or give them example sentences to clarify meaning further.

Again, which you choose will depend on the item you are presenting. Some are more suitable for particular words. Often a combination of techniques can be both helpful and memorable (Frost, 2011)

Segment your lessons. When a person talks to other people, the person employs sentences rather than single words. It's crucial that students pay attention to word usage patterns and any words they use. Think of the words "strong wind" and "heavy rain." We can never say "strong rain" or "heavy wind," but we may say "there is a lot of rain" and "there is a lot of wind." The website forbetterenglish.com and Ginger's "Sentence Rephraser" are two excellent resources that might aid in exploration of language chunking. Make sure students write down, go over, and employ whatever phrases they come up with. (Josie, 2021)

Encourage pupils to maintain a journal. Watch TV shows while paying close attention to the conversation in order to jot down new phrases and expressions. Check up the terminology, look for sample sentences, and then create phrases or ideas for aiding memory. Think of the entire procedure that is used in learning in order to improve said learning. Over time, expression will become clearer.

Continue to consult those notebooks as learning difficulties arise. (Sama, 2022)

One way to consider vocabulary in terms of the difficulty teaching it is to use Pannacci's tier system:

All words are not learned with the same effort as some are more complex or used less frequently. Extra time will be needed to teach words of higher complexity that are heard less often. Categorizing words can help simplify the learning process when building vocabulary. Here is an explanation of the three tiers of words.

Tier 1: common words

Tier 1 vocabulary words are words that are used for everyday language. Words such as walk, look, computer, book, paper are tier one words. Because these words are used in high frequency, they are easier to remember and easier to explain.

Tier 2: complex words

Tier two words are more complex words, such as grumpy, negative, data, drowsy, climate. Tier two words reflect a higher level of English comprehension. They are still frequently used, but with less frequency than tier one words. Acquiring and understanding tier two words in speech can be challenging. Teachers should be aware that getting these words to stick will take more time and explanation than tier one words.

Tier 3: specialized words

Tier three words are specific words that are not used very often. These words often belong to a specialized area of study, such as misappropriated, or tachycardia. Only for specialized courses will these words be taught. (Pannacci, 2021)

Additionally, there is a strategy for teaching and learning that covers the material in accordance with the learning objectives when using online teaching methods to teach English vocabulary. It must also consider how well-suited to their age the learners in the related grade in question. It should deliver education that promotes the growth of students' bodies, minds, emotions, and social skills. When choosing an online learning platform, it's important to take the benefits and drawbacks of the various programs or applications into account. To get good learning results, use a range of teaching approaches and teaching mediums. (Wibooncharoensuk & Jiamtong, 2021)

Research Question 4: What are proven approaches for building vocabulary and word usage skills in the humanities?

Keep in mind that the humanities, broadly speaking, encompass the teaching of languages, literature, the arts, and history: The problem of vocabulary teaching in these areas (leaving aside for now literature and English, discussed separately above) was succinctly stated by J.W. Wright.

Students in middle and high school are positively overloaded with vocabulary. As text books get bigger and college preparatory requirements increase, the amount of content-specific language that

students have to manage is immense. Of course, the arts are no exception. Students often feel overwhelmed in the arts and humanities classrooms because the vocabulary is a mixed bag of words derived from other languages that seem simple; but have substantial weight when considered in context, or words that cross disciplines with similar but nuanced meanings in each content area. (Wright, 2021)

Many doorways to new experiences in life can be opened by learning new words and expanding one's vocabulary. Learn the value of expanding your vocabulary and investigate methods for doing so, such as using dictionaries, thesauruses, and glossaries, as well as determining a word's meaning based on context. (Serna, 2021)

This suggests that students need to become familiar with a variety of methods for deciphering word meaning, including the use of dictionaries, context cues, synonyms, antonyms, and homonyms. With the aid of these abilities, they will be able to decipher unknown terms in readings and texts and comprehend their meanings. (Mahaguay, 2021)

Declarative, procedural, and automaticity are the three stages of full skill acquisition, according to DeKeyser's (2007) theory. When learning a language, the formal features of the language are encoded in memory as declarative knowledge, which is static information. After that, students start to convert declarative information into procedural knowledge, which involves using less effort to produce language in conversation. Through the development of procedural knowledge, learners arrive at automatized knowledge in the final step.

University students view gamification in vocabulary acquisition favorably because it fosters healthy competition, enriches the learning environment, and boosts students' willingness to learn. However, some of them struggle to adapt to gamified vocabulary learning due to a lack of digital literacy and a bad Internet connection. (Zainal, 2023)

Research Question 5: How can these areas be integrated in terms of word skills to provide a holistic learning experience?

The whole language approach (Schurr et al., 1995), also referred to as holistic teaching (Myers & Hilliard, 1997), has gained prominence in recent studies that emphasize the integration of skills and technology as the enabler (West, 2002) as the dominant teaching approach. These studies center on the debates of integrating/segregating or segregating in need. According to Nunn (2006), there has been a progressive shift in language learning theory towards a more comprehensive understanding of language use. He claims that the last thirty years have seen a move towards viewing language in much more integrative and holistic terms. Skills integration is viewed by Nunan (1989) as a crucial component of language learning.

The whole language idea discussed above, twins with technology integration, both integrating ideas and separating out key components, to provide a holistic learning experience across curricular areas. This can happen as a result of developing in students an understanding of how cross-curricular

areas are related. Taking US History as an example, the Magna Carta of 1215, an event in English history, can be seen as involving popular sovereignty, which the Americans later used as reasoning for the challenge to the authority of George III in their revolution of 1776. You might use technology to integrate a discussion of these ideas with an app such as Google Docs. This might then be followed with discussions of scientific principles and vocabulary from both American and English scientists. The English teacher can become involved in working through vocabulary from the functionally related subjects of history and science, perhaps in a writing assignment. Holistic approaches like this can move teachers and students away from the traditional silo approaches of earlier educational models. Functional and thematic integration across subject areas provides a holistic backdrop for effective vocabulary learning.

Summary of Documentary Findings:

Research Objective	Practices	Outcomes
Building vocabulary and word usage skills in mathematics.	Use vocabulary daily, annotate vocabulary meanings in work, solve word puzzles in groups, three read protocols for word problems, vocabulary spotting.	Application specific, clarity of understanding, enhancement of social development in a mathematical context.
Building vocabulary and word usage skills in science.	Use, group and subgroup index cards, teach science specific meanings of items like process, analyze, explanation, predication, as well as content terms like endosperm or magma, teach root terms like isis (process) or synth (light), use thematic approaches.	Holistic view of science and scientific knowledge, knowledge of the relation of science to other fields, word etymology enhances learning and understanding.
Building vocabulary and word usage skills in English and literature.	Prior knowledge activation, consideration time, visuals, own definitions, illustration, mime, synonyms and antonyms, the three-tier system.	Diction is more concise, accurate and descriptive, depth of understanding increases, category development and the ability to associate enhances ease of vocabulary development.
Building vocabulary and word usage skills in the humanities.	Expansion of vocabulary, reduction of overload, investigative methodologies, transfer of declarative rules that are static to procedural rules that reduce effort in learning, gamification.	Greater amount of learning tools, less stress, increased interest, fun.
Developing integrated approaches in terms of word skills to provide a holistic learning experience.	Whole language, technology integration, subject integration.	Understand the inter-connectedness of knowledge, enact life-long learning possibilities.

From this research, it is evident that their area a plethora of methods and processes currently

available to teachers and administrators for reaching students and enriching as well as enhancing vocabulary study. The processes and techniques discussed above, when followed, will improve all learner outcomes in the classroom as well as the experiences of learners following formal graduation. Further research into specific pathways in accordance with local circumstances will develop sound student capacity and citizenship.

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A SYSTEMATIC EXAMINATION OF INSTRUCTIONAL DESIGN, MODELS, AND PROCESSES

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Abstract: The primary focus of this paper was to delve into the complexities of instructional design with the aim of enhancing English language teaching. It involved the integration of well-known instructional models along with some lesser-known ones sourced from various websites and research articles, which highlighted the fundamental elements of planning and delivering instructional sessions. This study centered around five key research questions: What is instructional design? What are its defining characteristics? What prerequisites are necessary for it? How do various instructional models and theories apply? And how can language teachers effectively plan their instruction? The main findings of this research emphasized the idea that a successful instructional model depends heavily on several prerequisites that should underpin the content of teaching. Once these prerequisites are in place, high-quality instructional models illustrate the importance of a robust, systematic, and logical process where key concepts are employed through well-defined terminal and enabling objectives. This contributes to the establishment of a solid instructional framework. Additionally, the teacher should also plan to incorporate both physical and cognitive scaffolding, as well as psychological approaches, as the instruction unfolds, highlighting their equal significance. These models, along with the findings derived from them, also underscore the importance of evaluating the teaching process both during and after instruction in various ways. This feedback is essential for the continuous improvement of teaching when utilizing such models. This research can be particularly advantageous for novice and developing teachers.

Keywords: Instructional Design, Teaching Design

Introduction

The foundations of instructional design first emerged from the work of Robert Gagné and L. J. Briggs, who developed the concept of teaching aircraft pilots during World War II so that they could be proficient at specific tasks divided into smaller steps. They suggested analyzing the components of

a period of instruction so that an integrated plan could be made (Cengage, 2019). This strategy expanded after the war, which helped create the instructional design systems we know today. The field of education known as instructional design now combines aspects of cognitive and behavioural psychology (Virtanen, 2022).

Over the years many instructional models have been developed and refined have been guided by three main elements commonly known as the Magic Triangle of Learning namely:

- Clear goals and objectives.
- Learning activities.
- Assessments.

These three pillars are constructed with the "intention of interdependence," and support one another, when instructional design is most effective and learning outcomes are most successful (Wengroff, 2020).

This article's goal is to identify key instructional design models and theories that support teaching in general and language teaching in particular by conducting a thorough examination of the field of instructional design. To this end, the following five research questions have been developed:

Research Questions

1. What is instructional design?
2. What are the characteristics of instructional design?
3. What are the prerequisites of instructional design?
4. What are instructional design models and theories?
5. How do language teachers plan for effective instruction?

Research question 1 What is instructional design?

A number of terms have been used to describe instructional design including instructional systems development (ISD) or instructional systems design. It is the process of developing educational experiences to aid in learning. Based on the idea that training is most effective when it provides students with a clear statement of what they must be able to do after training and how their performance will be evaluated, this approach takes a systems-based approach to analyzing, designing, developing, implementing, and evaluating any instructional experience (ATD, 2023).

To put it another way, instructional design can be summed up as the creation of educational materials. Although this field goes beyond merely producing instructional materials, it pays close attention to how students learn and what tools and strategies will enable people to achieve their academic objectives. The principles of instructional design take into account how educational resources for any learning group, from elementary school students to adult workers across all industry sectors,

should be designed, produced, and distributed. The corporate world also benefits from instructional design, in addition to the educational sector (Purdue University Online, n.d.).

In order to meet the needs of the learners and the desired learning outcomes for them, instructional design is the process of using our understanding of how people learn to best inform our decisions about instructional sequences and strategies. An instructional designer is a learning specialist who can use their understanding of learning and teaching principles to determine the best teaching strategy. Finding the best solution in these three categories is necessary. The task, learning needs, instructional problem, and learning environment are all examined by the instructional designer and taken into consideration during the planning stage. The instructional designer can order the content and select strategies to achieve the learning objectives by clearly defining the learning objectives (IDA, 2022, University of San Diego, 2023).

Research question 2: What are the characteristics of instructional design?

The characteristics of instructional design

Beyond creating courses and learning materials, an instructional designer plays a wider role in a school. Additionally, they might lead organizing initiatives, supervising teacher development, and helping organizations and trainers. Building a course requires extensive planning and the use of the appropriate tools, whether it's for engaging students or assisting teachers. Instructional design, which focuses on the most efficient ways to produce and deliver educational content, is a significant component of this. An instructional designer typically:

- Defines learning objectives and finds which teaching methods and strategies to use to accomplish them.
- Structures and organizes course content based on learners' processes and certain parameters.
- Determines & develops lessons, activities, and evaluation tools that teachers use to meet learning goals (Nuñez, 2022).

The University of Zambia has created a master list of essential characteristics of instructional design in greater depth thus:

- Theory expert.
- Great storyteller.
- Innovative thinker.
- Attention to detail.
- Visually orientated.
- Teachers need to be concise.
- Data has to drive instruction.
- Teachers need to be tech-savvy.
- Lessons need to be learner centered.

- Teachers need to work as art of a team.
- Teachers need to be excellent communicators.
- Lessons and the distribution of the curriculum need to be well organized.
- Teachers have to project an in image of enthusiasm (The University of Zambia, 2021).

Given that English courses and lessons are created for different learners based on their English proficiency and needs, well-designed instructional and curricular design in ESL/EFL is essential. Teaching specialized subjects, such as Business English, might also call for a unique lesson plan and particular kinds of practice exercises. The ability to design lesson plans that are unique to an English teacher depends on the teacher's knowledge of instructional and curriculum design and for Nuñez the following are of the highest importance.

- Tech-savvy
- Empathy for learners.
- Flexibility in instruction.
- Research and evaluation skills.
- Creativity and visual design skills.
- Resourcefulness when using instructional tools (Nuñez, 2022).

Research question 3 What are the prerequisites of instructional design?

The needs analysis

The planning and implementing of any reliable educational curricula and syllabi should take learners' needs, wants, and deficiencies into consideration (Richards, 2001, p.51). The phrase "procedures used to collect information about learners' needs" can be used to describe the importance of a needs analysis. Any kind of needs analysis is used to determine what learners already know, what they are capable of doing, what they still need to learn or do, and how well this fulfils their needs as well. To determine if the course or syllabus meets the students' needs, to identify the language skills they need to develop, and to gather information about potential difficulties or problems (Stavraki, 2021).

The phases of a need's analysis and implementation

The foundation of a needs assessment process or approach is described by the four components of a successful need's assessment. The needs assessment procedure is carried out over the course of five distinct phases at the school or district level:

- Plan, collect and organize data.
- Interpret information from that data.
- Determine priorities for student achievement.
- Connect to implementation (Cuiccio and Husby-Slater, 2018 p5).

Research question 4 What are instructional design models and theories?

Bloom's Taxonomy: A hierarchical classification system for the various degrees of complexity

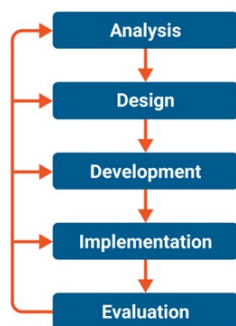
in the learning process is called Bloom's Taxonomy. Three fundamental principles-cognitive, affective, and psychomotor-are used in the model to classify learning objectives. The most popular model for developing learning objectives during instructional design is the cognitive model. The purpose of viewing learning objectives in behavioural terms is to make it easier to define and measure them based on the knowledge and skills the learner gains and how that knowledge and skill improvement affects their behaviour (or performance). The model is designed to demonstrate how students can advance through structured levels of complexity in their depth of understanding and level of proficiency in a particular subject or process it is useful for instructional designers because they can use it to:

- Assess a learner's current level of knowledge.
- Create training specifically designed to move them up to the next level.
- Frame learning objectives, activities, and assessments around the verbs provided by Bloom to make learning measurable (Cruz, McDougall, & Animashaun, 2022).

Knowles' Theory of Andragogy: This hypothesis was created in the 1970s, according to Malcolm Knowles. Andragogy differs from pedagogy in that adult learners have more freedom and control over their learning processes and bring their experiences to bear to guide their educational journeys. All theories of adult learning are built on andragogy (Knowles. 2018).

Gagne's Nine Events of Instruction: Robert Gagne developed this now well-known and organized method for developing successful learning designs. The nine events increase engagement and retention when they are completed in the correct order (Virtanen, 2022).

Meier's Accelerated Learning: This theory is a system that improves the design and learning processes and contains seven guiding principles. Understanding cognitive science and the functioning of the brain can help designers choose the most effective methods for enhancing learning (ATD, 2023).



Picture 1: The ADDIE model

The ADDIE model: This one is one of the most popular models for instructional design is this one. Analysis, Design, Development, Implementation, and Evaluation are the five phases that make up ADDIE. These actions are regarded as the cornerstone of almost every learning design activity. The fact that ADDIE consistently creates training that leads to students acquiring the knowledge and skills

required for successful job performance is one of its main advantages (Cruz, McDougall, & Animashaun, 2022).

The Dick and Carey model: Through a series of nine steps that all work together to achieve a specific instructional goal, Dick and Carey's systems approach aids curriculum developers in creating lessons that are both effective and engaging. The systems approach takes into account elements like the teacher, students, resources, instructional activities, delivery system, and the environment for learning and performance. The Dick and Carey systems approach is characterized by a nine-stage system;

Stage 1 Identifying instructional goals

Stage 2: Conducting instructional analysis

Stage 3: Analyzing learners and context

Stage 4: Writing performance objectives

Stage 5: Developing assessment instruments

Stage 6: Developing an instructional strategy

Stage 7: Developing and selecting instructional materials

Stage 8: Designing and conducting formative materials

Stage 9: Designing and conducting summative materials (Dick, Carey, & Carey, 2005).

The Kemp Model: The Kemp e-learning Design Model was founded by Kemp, Morrison, and Ross. Due to its cyclical structure, this strategy adopts an unconventional approach to the development of electronic learning. Every element of the design of the eLearning course and the learning process is taken into account. This enables eLearning specialists to develop more purposeful eLearning courses that concentrate on the requirements, preferences, and objectives of online learners. There are nine stages to this model namely:

1. Identify Learning Goals and Potential Obstacles
2. Research Your Audience
3. Gather Resources and Identify Suitable eLearning Activities
4. Emphasize Learning Objectives and Outcomes
5. Develop eLearning Course Content Based on A Specific Sequence
6. Determine the Ideal Instructional Design Approach
7. Choose the Ideal Content Delivery Method and Fine-Tune Your Message
8. Provide Support Resources to Online Instructors and Learners (Pappas, 2021).

Merrill's Principles of Instruction: As the founding principles of instruction, MPI focuses on helping students retain the most information possible from each course. This framework, which David Merrill proposed in 2002, holistically integrates five learning principles, namely:

- Task-centered
- Activation

- Demonstration
- Application
- Integration

The principles of Merrill's instructional model promote learning in the following manner. Students should be able to identify with issues and challenges they can complete. The learner's already-existing knowledge base must be activated in a course for them to connect this to the new information. In order to use different brain regions and help students retain the information longer, a course's demonstration of the material (both visually and through storytelling) must be engaging. Allow them to independently apply new knowledge. Let them practice and make errors so they can learn. Show them concrete examples of how your new material performs. Through discussion, reflection, and/or the presentation of new information, the course must provide opportunities for learners to apply what they have learned to their everyday lives (Gutierrez, 2021).

Models specific to language learning

Presentation Practice Production: PPP, or presentation-practice-production, is a method for teaching grammar or vocabulary. PPP is broken into three phases, as its name implies, moving from strict teacher control to more learner freedom.

The presentation phase: The teacher has control over the presentation phase. To explain a situation, the teacher might use a text, an audio recording, or visual aids. She will take the necessary language forms out of this.

The practice phase: Students practice saying or writing the language structure correctly during the (controlled) practice phase. Drills, multiple-choice tests, gap-and-cue exercises, transformations, and other practice drills are typical. The teacher's job during this stage is to oversee the activities, give students encouraging feedback, point out errors, and demonstrate the proper forms.

The production phase: Students can proceed to the (free) production phase once they have fully mastered the form and have learned how to produce it in controlled exercises without making any mistakes. In this stage, they create oral or written texts using the newly learned linguistic structure. Dialogues, oral presentations, and the creation of sentences, paragraphs, or longer texts are examples of typical production activities. Since the students ought to be proficient by this point, the teacher rarely steps in to correct or intervene. If errors are made, they are clarified following the exercise (Achilleas, 2012).

The SREO Model Suppatsereee created the SREO Model, also known as Suppatsereee's Remedial English Online (SREO), in 2005. It is an online educational program used at Suranaree University of Technology to teach Remedial English to first-year students. Suppatsereee (2005) asserts that a variety of instructional designers, including Dick and Carey, the Kemp Model, Klausmeier and

Ripple Model, and Gerlach and Ely Model, contributed to the development of the SREO Model. Six major steps and 16 supporting steps made up the SREO Model.

- Identify setting – need analysis
- Set instructional goals and objectives
- Design lessons – manage content
- Produce online instructional package – select and integrate modules
- Conduct developed lessons – implement the lessons
- Evaluation – formative / summative (Suppatsereee, 2005).

Research question 5 How do language teachers plan for effective instruction?

Writing objectives for lesson plans

A learning objective is a description of what the learner must be able to do upon completion of an educational activity. A well-written learning objective outlines the knowledge, skills and / or attitude the learners will gain from the educational activity and does so in a measurable way. An effective learning objective should include the following 5 elements: who, will do, how much or how well, of what, by when. The mnemonic SMART is often used to define what a good objective should look like

- Specific: What action will be performed and by whom?
- Measurable: How will success be measured? Objectives should quantify the amount of change expected.
- Achievable: Can this objective be achieved within a given time frame and with available resources?
- Relevant: Are the objectives aligned with the instructional method and assessment?
- Time-bound: When will this objective be achieved? Objectives should provide a time frame indicating when the objective will be met (Chatterjee & Corral, 2017).

Objectives are the specific measurable results of a teaching plan as they specify how much of that plan and what will be accomplished by whom and when. For example, one of several objectives for a teacher may be to improve the spelling (of what) in a specific class by the end of the month (by when) by 25% (how much). Objectives also help teachers, students and organizations stay focused.

Process Objectives

These are the objectives that provide the groundwork or implementation necessary to achieve all of the other objectives. For example, a teacher may create a plan to teach a series of business accounting practices in this example the overall plan itself is the objective (Nagy & Fawcett, 2023).

Terminal objectives

The overall objective of the entire lesson is known as the terminal objective. It is an overarching goal that will include all enabling goals that come after it. The Terminal Objective, not the process, but rather the desired outcome, is described. Instead of writing from the perspective of what the teacher (or lesson) will teach, write from the perspective of what the learner will be able to do at the end of the session.

Example:

By the end of this lesson, the student will be able to demonstrate their competence in using the present simple tense.

Enabling Objectives

The Terminal Objective is broken down even more by Enabling Objectives. The support for how the Terminal Objective will be achieved is provided by Enabling Objectives. They enable the division of Terminal Objectives into smaller, more manageable objectives. The performance expectations for the learner are stated in a well-written EO. The umbrella TO must be addressed by each EO. EOs must be written using Bloom's Taxonomy's measurable verbs. EOs are goals rather than tasks.

Example: By the end of this lesson, the student will be able to:

- Explain the present simple tense.
- Describe the two main ideas related to it.
- Write a complete sentence using it.

Cognitive learning objectives

These relate to what a student should know, understand or comprehend. They should also be able to emphasize remembering or reproducing something, which has presumably been learned. Not only that but also be able to solve some form of intellectual task for which the individual has to determine the essential problem and also reorder given material or combine it with ideas, methods, or procedures learned in a previous lesson. They should also be able to vary from simple recall of material learned to highly original and creative ways of combining and synthesizing new ideas and materials and should encourage higher order thinking using Bloom's Taxonomy as a guide.

Example:

The students should be able to write the correct capital city in the spaces provided on the map with an accuracy of 80% (Gary, 2021).

Psychomotor learning objectives

These kinds of learning objectives are concerned with physical movements by students with the emphasis on muscular or motor skill such as how they use tools, and to encourage actions which evidence gross motor skills such as the use of the body in dance or athletic performance. They include

examples like typing 25 words per minute, printing letters correctly, painting a picture, or dribbling a basketball.

Example:

Third grade students will select a bat and ball and proceed; under supervision to hit the ball with a single hit using both hands on the bat (Lehman, 2023).

Affective learning objectives

This kind of objective deals with how a student should feel about something emphasize a feeling tone, an emotion, a degree of acceptance or rejection, attitudes, appreciations, or relationships, vary from simple attention to selected phenomena to complex but internally consistent qualities of character and conscience.

include examples like listening attentively, enjoying music, or appreciating literature.

Example:

Given the opportunity to work in a team with several people of different races the student will demonstrate a positive increase in attitude towards non-discrimination of race, as measured by a checklist utilized/completed by non-team members (Gary, 2021).

Assessments

Quizzes, tests, practical exercises, worksheets, and other formats are all acceptable forms of assessment for language tests. The evaluation ought to be accurate to the related task. Before moving on to the next task after the learners have finished the tasks, students should make sure they have a firm understanding of the previous one. The teachers' ability to determine where future needs are for remediation, rewriting, or teaching style will depend on whether or not the students performed exceptionally well on the assessments (Parker, 2021).

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REVIEW OF TRANSFORMATIONAL LEADERSHIP TRAITS AND SUCCESSFUL PRINCIPALSHIP IN TAIWAN'S K12 EDUCATIONAL CONTEXT

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Abstract: This paper mainly aimed to review transformational leadership theory, its traits and characteristics, then to introduce the K12 educational context and its system in Taiwan; lastly to explain the successful principalship of K12 Schools in Taiwan. Through systematic literature review of transformational leadership theory and educational reform practices, these researchers found that to be a successful principal in Taiwan's K12 schools needs to master more transformational leadership traits and characteristics, including: 1). The principal had a clear vision of his mission of education; 2). As a man of justice who provided equal opportunity for all teachers, he has been able to build a good team of innovative, responsible, and talented teachers; 3). The principal possessed a good art of leadership with skillful administration, conscious reform, full understanding of the needs and talents of his teachers; 4). The principal was willing to share leadership with colleagues, to be responsible, and to have good knowledge and technique of teaching, teaching quality promotion, teaching team; 5). The principal was able to market his schools, to raise funds, and to provide good service to students and their parents.

Keywords: Transformational Leadership, Successful Principalship, K12 Educational Context in Taiwan

Introduction

The transformational leadership theory introduced by Burns (1978) enables teams to help each other reach a higher level of motivation by changing external circumstances. Transformational leadership describes an approach whereby leaders motivate followers to align with the organization's aims and interests to achieve performance that exceeds expectations (Groselj et al., 2021).

Leithwood & Jantzi (1990) presented a paper related to the transformational leadership at the annual meeting of the Canadian Association for Curriculum Studies. The results of this paper suggested the feasibility of developing more collaborative school cultures in a relatively brief period and clarifying

the role played by the large context of school improvement for fostering collaboration. The specific strategies applied were associated with the concept of leadership termed “transformational”. To get deeper change, one must capture the energy, ideas, and commitment of teachers and principals. It takes leadership—a certain kind of leadership—to do this (Fullan, 2004). Although it is hard to give a definite definition of leadership, there is some research that has tried to find the common attributes of the great leaders.

Transformational leadership goes beyond transactional leadership by motivating followers through charisma to emotionally identify with the vision of the leader and to sacrifice their self-interest for that of the organization. Followers are encouraged to question their own ways of doing things and their assignments provide them with new learning opportunities (Sousa, 2007).

According to Bass (1985), charisma, attention to individualized professional development, and the ability and willingness to provide intellectual stimulation are critical to leaders who want to transform organizations faced with demands for renewal and change. To be successful in schools, transformational leaders need to pursue the following three goals: 1) Help staff develop and maintain a collaborative and professional school culture that reduces teacher isolation, shares leadership, delegates power, communicates norms and beliefs, and uses the bureaucracy to support cultural changes. 2) Encourage the staff to internalize goals for professional growth. 3) Help teachers work smarter, not harder, by recognizing that teachers as a group can develop better solutions than the principal can working alone.

Transformational leadership is no panacea, but it can be a part of a balanced approach to creating high student and teacher performance in schools. To examine how the principals in primary and secondary schools in Taiwan are pursuing these three goals will be one of the focuses of this study. Leithwood & Riehl (2005) also defines “school leadership” as “the work of mobilizing and influencing others to articulate and achieve the school’s shared intentions and goals” and approvingly asserts that “increasingly, educational leadership that purports to serve any end other than student learning is viewed as illegitimate and ineffectual.”

Transformational leadership, thus, works to legitimate the personal values and beliefs of individuals within the organization, as well as to encourage the building of trust and respect between leaders and followers (Hoy & Miskel, 2001). Creating a shared vision then becomes a major task for a transformational leader.

There are also other theories about transformational leadership. One has indicated that transformational leadership has 4 dimensions (Bass, 1996; Judge & Piccolo, 2004).

- *Idealized Influence* – Refers to how leaders’ admirable behavior can cause followers to identify with the leader, appealing to followers on an emotional level. This is about leaders’ ability to provide a role model for their followers by having a clear set of values and demonstrating them in every

action.

- *Inspirational Motivation* – Leaders articulate a vision that is interesting and inspiring to followers, challenge them with high standards, communicate optimism about future goals, provide meaning for the task at hand. Followers need to have a strong sense of purpose if they are to be motivated to move forward individually as well as within groups.

- *Intellectual Stimulation* – Leaders can increase the awareness of problems and persuade employees to deal with them from different perspectives. Moreover, leaders challenge assumptions, take risks, and seek ideas from employees to stimulate and encourage creativity among them.

- *Individual Consideration* – This is about how the leader attends to each follower's needs, acts as a mentor or coach, and listens to their concerns and demands. This also covers the need to respect and celebrate the individual input that each employee is able to contribute to the team.

Another theory has divided transformational leadership into 3 dimensions, which are listed below (Geijsel, Slegers, Stoel & Kruger, 2009): including:

- *Initiating and identifying a vision* – Vision is the intellectual picture of a demand and a probable position of an organization in the future. Vision includes a particular mission and detailed objectives (Carlson & Perrewe, 1995).

- *Providing individualized support* - By clarifying long-term vision and objectives of transformational leaders, employees' intrinsic motivation levels increase, causing them to be more motivated to generate creative solutions for problems (Jung, 2001).

- *Providing intellectual stimulations* – Intellectual stimulation includes encouraging participants to question hypothesis, challenge status quo, redefine problems, and utilize imagination, intellectual wonder, and new approaches (Shin & Zhou, 2003).

Overall, transformational leadership contains the characteristics like inspiring others collaboration and interdependence as they work toward a purpose to which they are deeply committed. It's a leadership style based on influence and is accomplished when leaders “delegate and surrender power over people and events in order to achieve power over accomplishments and goal achievement.” (Ubben, Hughes & Norris, 2017, p89). A value-added approach since the focus is on tightly coupled purpose that determines the why rather than the what and how. Teachers are seen as craftsmen, professionals, or artists rather than laborers more like treated “Schools as Organisms or Brains.”

Transformational Leadership in Education

Strengths-based Approach to Change

Green (2013) has mentioned that in education, transformational leadership is constructive change that transforms the teaching/learning process using both the maturity of the student and the expertise of the teacher. It produces significant constructive change in teacher and student behavior and

is more effective in producing learning outcomes. It was designed to develop the capability to innovate in an organization and to build capacity to revise purpose or mission statements to support positive change in the teaching/learning environment. Transformational leadership seeks to build commitment to objectives and to empower others regardless of their level in the organization to work toward reaching instructional, group, and individual objectives.

In education everyone in leadership must maintain a positive attitude toward students and their preposition should demonstrate a genuine concern for the teaching/learning process and the learning outcomes. Transformational leadership can influence education: weak teachers must be improved, and all students given an opportunity to advance from where they are to where they need to be. When individuals feel a “call” to the teaching profession as a lifelong journey, their abilities and techniques can be enhanced. Those who see teaching as a temporary “job” create most of the difficulties in the classroom. When students factor in the future and clearly see the value and impact of the present lesson on their personal future, most can be guided toward improvement in study habits and learning skills (Green, 2013).

The definition of transformational leadership in the existing literature includes constructs, such as, influence, personal motivation, mental stimulation, needs assessment, corporate visions, and participative decision-making. Transformational leadership fosters capacity to enable colleagues and students to be more productive and a general awareness of the objectives of the association.

Leithwood & Day (2007a, 2007b) studied the leadership of 63 middle and elementary school principals from 8 different countries. Based on the evidence, they proposed the five-face of a successful principal leadership, setting the direction of the organization, developing the members, re-designing the organization, managing teaching programs, and constructing a strategic alliance. The study done in Taiwan tried to observe one principal’s behaviors in these five faces and here are the findings.

- Setting the direction of the organization: a. the principal has deep philosophy of education and innovative thinking, b. built a student-centered school development vision, c. had a great understanding of the nature of human interaction and applied to teachers.

- Developing the members: a. the principal provided teacher the opportunities and ways of receiving professional development, b. created a good team to lead and facilitate instruction reforms, c. valued administration as a human care and quantitative assessment. His behaviors demonstrated the data-based decision mentioned by Kowalski, Lasley & Mahoney (2008), and the authentic leadership brought up by Sergiovanni (1999).

- Re-designing the organization: a. strengthened the administrative operational system through re-structuring school organization, b. applied harmonious and innovative leadership to promote the trust culture in school, c. members participated in decision-making to outline the blueprint of the sustainable development.

- Managing teaching programs: a. provided excellent quality of teaching resources, facilities and equipment, b. shaped a teaching team and sharpened classroom teaching, c. shared new educational knowledge and philosophy.
- Constructing a strategic alliance: a. Built and marketed the new brand of the school, slowed down the impact from the low birth rate, b. established the parent education service center and the close cooperation between parents and teachers, c. introduced a wealth of external resources, bringing a fountain to the school affairs development (Lai, 2011).

The K12 Education System in Taiwan

In 2007, the Taiwan Ministry of Education had put together a plan to promote the 12-year compulsory education for the nation. In which it stated, “According to UNESCO statistics, currently 46 nations have compulsory education of 10 years and over.” Many developing countries have noticed that there’s an essential connection between compulsory education and national competitiveness. Therefore, the Taiwan Government has been planning to implement the 12-year compulsory education for years. In the past, junior high students had to pass an annual entrance exam to enter the top high schools. After the 12-year compulsory education is implemented, they no longer need to take the exam, instead, the acceptance of high schools will be determined by the GPA in their junior high school years, which leads to a great challenge for school to help students find the most suitable schools.

In Taiwan, the 9-year compulsory education was implemented in 1968, until now. Back then, Taiwan was high in the rank for providing compulsory education of 9 years and over. However, 39 years later, Taiwan has fallen behind. Meanwhile, a review of the 9-year compulsory education reveals several problems, chief of which are the gap between city and country, uneven educational qualities, uneven distribution of resources and excessive pressure from seeking further education. Moreover, the dropping birth rate also poses a threat to student numbers. In addition, nearly half of senior high and vocational schools are private with tuition more than four times that of public schools. Most of the students enrolled in private schools are from families with middle, low social ranks of society. To solve the educational problems people now facing and raise the quality of manpower, it is necessary to lengthen the compulsory education.

The idea of lengthening compulsory education was first mentioned in 1983. Ten ministers of education have come and gone since then. A consensus was finally reached at the national education development conference held in September 2003 with a conclusion to phase in 12-year compulsory education. A December 2006 poll by National Academy for Educational Research Preparatory Office on Taiwan residents' views of key educational issues indicates as high as 78.4 % of the population is in favor of 12-year compulsory education. This policy mainly impacted junior high school a great deal. The main goals for this implementation are listed below.

1) Increasing the quality of the nation comprehensively: To raise the quality of the nation, it depends on the quality of the education. If the government allows to put in more educational budget, improve the soft and hard wares of the facility, upgrade teacher quality, reduce the gaps in different areas by implementing the Twelve Years Basic Education Policy, then this goal will be reached.

2) Balancing the quality of the high schools in different areas: the gaps of educational quality happened in between the public and private schools, the regular and vocational high schools, and high schools in the urban and rural areas. It is one of the goals that the Twelve Years Education Policy could narrow the gaps between the high schools of different types or areas.

3) Relieving the competition of the Studies: Although the Twelve Years Education Policy was not designed for this purpose, it could help decrease the tension of competition to some degree.

4) Reaching the goal of all students attending schools in their neighborhood: If students can attend schools nearby, it can avoid wasting energy and the cost of education. Therefore, after implementing this policy it is expected to save lots of social costs and promote the balanced development of the region.

Here was the schedule of implementing the 12-year compulsory education:

1) Preparatory stage: Since the Medium-Term Plan to Incorporate Senior High and Vocational Schools into Communities was inaugurated in 2003, 12 preparatory measures including Program to Assist Quality Senior High Schools have been taken.

2) Initiation stage: Complementary measures are to be taken between 2007 and July. Enforcement programs and operation guidelines shall be set forth based on enforcement plan, with the aid to disadvantaged students enrolled in private senior high and vocational schools in paying tuition increasing yearly, improving the quality of senior high and vocational schools on a full scale.

3) Full-scale implementation stage: Beginning August 2009, 12-year compulsory education shall go into effect. Disadvantaged students involuntarily enrolled in private senior high and vocational schools shall receive aid in paying tuition with more schools becoming quality schools. With adjustment to the method used to admit students, increase in the number of students admitted to schools through application rather than exam and gradual decrease in the weight of basic competence test, junior high school graduates are encouraged to enroll in local senior high and vocational schools in an effort to ease the pressure coming from seeking further education. (MOE, 2007)

However, there are still too many factors impacting the program, so it is not yet implemented. The current plan is to start the 12-year compulsory education in 2014. The 12-year compulsory education includes 12 preparatory measures, 12 sub-projects and 21 programs. The 12 preparatory measures are, plan for universities to provide enrollment quotas for students recommended by senior high schools, medium-term plan to incorporate senior high and vocational schools into communities, plan for industry and academia to jointly implement the project on a trial bases, plan to find employment for graduates of departments of key industries from vocational schools, plan to incorporate Education

Priority Zone program into GIS system's 3rd stage procurement plan, database of assessment of students' study achievements, plan to rebuild old buildings of national senior high and vocational schools and program to add more educational resources, plan to assist quality senior high schools, rules governing awarding scholarships to junior high school students enrolling in community senior high and vocational schools, plan to aid disadvantaged students enrolled in private senior high and vocational schools in paying tuition, reference and guidance to primary, secondary school consistent curriculum system, and studying and drawing up Senior High School Act.

There is a specific system framework for the Twelve-year Compulsory Education, which includes three main visions, five major concepts, six goals, seven-oriented directions, and twenty-nine programs. The three main visions are: 1). Improving the quality of primary and secondary education, 2). Focusing on the achievements of each child, 3). Strengthening national competitiveness.

The five major concepts include the following: 1). No child left behind; 2). Individualized; 3). Suitability of personality and carrying forward one's talents, 4). Multivariate approach for entering schools, 5). Quality for linking up between primary and secondary education.

There are six goals listed in this framework. They are: 1). To cultivate modern civic literacy, 2). To guide diversified aptitude development, 3). To ensure students' learning ability quality, 4). To relieve excessive academic pressure, 5). To balance urban and rural education development, 6). To pursuit social equity and justice.

The six goals are followed by seven-oriented directions, which are: 1). Full free tuition, 2). High quality and homogenization, 3). Curriculum and instruction, 4). The adaptive tutoring National literacy, 5). Legal system, 6). Advocacy, 7). Admission modes. Among those sub-projects and programs, there are many policies still being discussed, and many negative voices coming from society, the school principals, teachers, students, and parents. Therefore, how to carry this plan will be a great challenge for both the MOE and the school leaders.

Principal Leadership in Taiwan's K12 Educational Context

Shouse & Lin (2010) indicated the meaning of "school reform" is from both functional and institutional perspectives. They also brought up an essential question for educators to ponder: "Is the reform process seen as a means of rationally improving the functional quality and product of Taiwan public schooling, or more as a matter of strengthening institutional legitimacy within an increasing global environment?"

As Taiwan education officials mandate less local bureaucracy and more local democracy, principals are pulled in multiple directions, and their schools have become places of uncertainty and incongruity (Shouse & Lin, 2010). With the respect to these Taiwanese principals, the research data reflected a picture often described by sociologist Dan Lortie with respect to American principals: that they must work in an environment of declining formal authority coupled with increasing

responsibilities, expectation, uncertainty, and vulnerability. The responsibility of the school performance is diffused throughout the school and community in the States (Shouse & Lin, 2010).

However, the Taiwan school-reform legislation has removed a portion of the job security principals once enjoyed. A school's poor performance, its failure to satisfy parents' expectations, a principal's inability to implement reform, and even local political pressures his/her lead to reassignment or even dismissal, which was reflected in the interviews conducted by the researcher in December 2010 in Taiwan. Hence, Taiwan principals appear to operate in a precarious setting, one in which they must struggle to find the combination of symbol and substance with respect to reform that will promote their status and stability within the organization (Shouse & Lin, 2010).

Earlier research conducted by Lin, K. P., and presented in April 2006, had indicated more details related to the principal leadership in Taiwan schools. In her study, she had tried to compare western and eastern leadership, to see if Taiwanese principal leadership had been influenced by the western leadership theories. The finding showed that the participating principals recognized the importance of principal leadership, and that they were influenced by western theories. Education reform has caused principals to rethink and even change their leadership practice (Lin, 2006). Lin also brought up a question to ponder: "Within such a setting, would "leadership" tend to be perceived less in "transformational" terms (e.g., inviting school members to engage in "vision building") and more in bureaucratic terms (e.g., ensuring that procedures are followed, and goals are met)?" There is one explicit set of goals for schools in Taiwan, that is, to prepare the students to perform well on the national entrance exams for university. Recent MOE's efforts to develop policies to replace those rigid entrance exams have faced huge resistance, which is a good example of the general public's desire to maintain a traditional approach.

Lin (2006) also stated that the word "transformation" might mean differently to a Taiwanese principal, compared to a western principal. A western principal would see "transformation" as "vision building," where a Taiwanese principal might see "transformation" as "change from one stage to another." Giving the rigid educational vision, a Taiwanese principal may view himself as "transformational" simply because he viewed himself as directing his staff "to change from one stage to another."

Taiwan schools have been observed by scholars (Pan & Yu, 1999; Hallinger, 1999; Shouse & Lin, 2010) to be overly burdened by top-down management systems combined with rules that make school improvement very challenging. There is a need to develop creativity in school leadership so as to enhance performance in schools and reach school and society wide goals. The imbalance between creativity levels needed and those presently observed in school leadership is reaching a critical stage, and there is a pressing need for improvement.

Among the characteristics of effective schools in relevant literature, leadership could be found to be a key factor. And the early studies of school effectiveness suggested the importance of strong

instructional leadership by the principal. The job for the principal is to set criteria and procedures for evaluating teachers, observing classrooms regularly, and to discuss with teachers for improving classroom practices, and to reward teachers for their excellent teaching.

Monitoring and directing the affairs of teaching and learning are essential to the principal's role (Sergiovanni, 1995). However, this finding is not applicable to different school contexts, including different countries. For example, instructional leadership was not found as a significant determinant of effective schools in the Netherlands (Creemers, 1996). Besides, no matter whether informed by the actual situation, empirical studies, or the contingency theory of leadership, we know that the principal's leadership style needs to be suited for the organizational context. A task-oriented and authoritative principal may be good in schools where teachers are lacking in commitment or poorly trained but not well in schools where teachers are highly competent and committed.

Investigating the studies of principalship in effective schools, Blase, Anderson & Dungan (1995) argued that the control perspective has dominated research of school leadership for decades, partly because it has been fostered by the school-effective literature and related approach to school improvement. When we want to jump out of the traditional control perspective that effective school studies employed, some other perspective needs to be brought in. Nowadays, more scholars have explored the connection between leadership and cognitive skills (Sousa, 2007). Cognitive perspective may provide an alternative avenue for examining school principalship.

Conclusion

To know about the successful leadership of a primary school principal in northern Taiwan, by means of theory and systematic literature review, and documents analysis, these researchers found that to be a successful principal in Taiwan's K12 schools needs to master more transformational leadership traits and characteristics, including: 1). The principal had a clear vision of his mission of education, 2). As a man of justice who provided equal opportunity for all teachers, he has been able to build a good team of innovative, responsible, and talented teachers, 3). The principal possessed a good art of leadership with skillful administration, conscious reform, full understanding of the needs and talents of his teachers, 4). The principal was willing to share leadership with colleagues, to be responsible, and to have good knowledge and technique of teaching, teaching quality promotion, teaching team, etc., 5). The principal was able to market his schools, to raise funds, and to provide good service to students and their parents.

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EXPLORING STRATEGIES FOR THE PROFESSIONAL DEVELOPMENT OF FOREIGN LANGUAGE TEACHERS AT CHINESE HIGHER EDUCATION INSTITUTIONS

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Abstract: Under the transformation of higher education, foreign language education in colleges and universities has been redefined. Accordingly, foreign language teachers at higher education institutions are no longer a simple existence, but a complex of compound knowledge and multiple abilities. Systematic review of literature review was adopted in the current study to achieve the objective of exploring strategies for promoting the professional development of foreign language teachers in higher education institutions. Accordingly, five strategies were summarized to develop a model with a dual process, which is mainly driven internally by the strategies of reflective action and research as well as self-improvement of professional quality and boosted externally through the strategies like external-boosting strategies involving the establishment of the professional learning community, multi-dimensional mechanism, and diversified evaluation. The main contribution of this research is the insight into a dual-drive model and more importantly specific strategies for evidence-based practice.

Keywords: Foreign Language Teachers, Professional Development, Strategies, Dual Process Model, Chinese Higher Education Institutions

Introduction

In the ever-changing context of higher education, the necessity of improving teaching quality has never been so striking or challenging as today. New trends in higher education have continuous influences on the way in which effective teaching is conceptualized, supported, and evaluated (Saroyan, 2010; OECD, 2013). The importance of improving schooling, teacher quality, and student outcome has led to a concentrated concern with teacher professional development (TPD) as a vital way to achieve these goals (Opfer & Pedder, 2011). As participants and practitioners, teachers, as well as their development, are the key point to ensuring the success of educational reform.

With the diversified development of foreign language education, a situation of cross-

disciplinary has been formed in this field, which requires cross-discipline knowledge and multi-ability (Li, 2016). Foreign language teaching has been redefined as an organic integration of learning language, culture, and subject content knowledge, not the simple instruction of pure language knowledge and skills (Zhao & Li, 2015), which indicates higher requirements for teachers' quality. While at higher institutions in China, most foreign language teachers have such problems as a single knowledge structure, a weak sense of development, and insufficient teaching ability. The current situation of TPD is not so optimistic, which is attributed to the poor mechanism and approaches of TPD (Wu, 2016).

Among the previous research conducted on TPD theoretically and empirically (Evans, 2011; Burke, 2013; Griffin et al., 2018; Creemers et al., 2013; DeMonte, 2013), few proposed systematical strategies of TPD for higher education, especially for foreign language teachers. This paper highlights why TPD is so important at this particular time of higher foreign language education, and thus exploring strategies that could be constructed into a model with a dual process model to promote the professional development of foreign language teachers at higher education institutions, for the necessity of better-cultivating students with diverse needs and to keep in step with shifts in knowledge and ongoing changes in the career.

Guided by a more commonly used data analysis method, namely systematic review of literature review (Xiao & Watson, 2019), the researchers systematically reviewed research published online on TPD and found that to achieve the research objective mentioned above, three questions need to be addressed: what is TPD? What are the core competencies of foreign language teachers at higher education institutions? What are the key factors influencing TPD? Based on the answers to these questions, five strategies were summarized to develop a dual-drive model for the professional development of foreign language teachers at Chinese higher education institutions.

Teacher Professional Development

Since the concept of TPD was put forward in the mid-20th century, this topic has become the focus of educational circles at the global level. The premise of the research on teacher professional development is to clarify the concept. For decades, scholars at home and abroad have given definitions from different angles (Perry, 1980; Ye, 2001; Hargreaves & Fullan, 2022). Teacher professional development refers to the comprehensive growth of teachers in their professional work and social life, including confidence enhancement, professional skills improvement, professional content knowledge renewal, and the strengthening of classroom management and operation awareness (Perry, 1980). Different from teacher training, the essence of TPD is teacher learning, which involves the bilateral improvement of teachers' individuality and professionalism (Ye, 2001).

Having witnessed the transformation from "group to individual", "external to internal", "passiveness to activeness" and "object to the subject", teacher professional development moved on to improving teachers' professionalism (Lv, 2008). That is to say, as the main body of reform, teachers should examine, update and continue their psychological commitment to teaching, learn theoretical

knowledge consciously and systematically according to their external needs for development throughout their career life, and improve the content of professional development continuously in practical activities. By nature, TPD is not only the process of development but also the purpose of development.

Teacher professional development is job-embed and sustainable (Burke, 2013); the five characteristics of professional development are collective attendance, active learning, content focus, coherence, and duration (Griffin et al., 2018). Therefore, teachers can cooperate with colleagues and learn from each other when optimizing their knowledge, skills, and practical abilities. Meanwhile, individual teachers need to balance an externally focused search for new ideas with internal reflection on teaching practice, beliefs, and values (Opfer & Pedder, 2011).

Based on the previous understandings, teacher professional development is defined in this study as a process in which teachers focus on the central goal of self-development in their professional field, take their own experience and reflection as the medium, and continuously acquire the professional content knowledge and skills concerning education and disciplines to improve their professional quality and finally realize professional autonomy.

Core Competences of Teachers at Higher Education Institutions

Since an eligible lecture tends to be innovative in content and teaching methods, teachers in higher education should have broad and integrated knowledge. In addition, strategies for instruction and information technology are also necessary to ensure high-quality education (Jesa & Nisha, 2017). Generally, the basic knowledge and skills required for teachers fall into seven types: pedagogical skills, subject knowledge, knowledge about students, contexts, governance, and financing for school districts, the educational mission, objectives, values, and knowledge of education based on philosophy and history (Creemers et al., 2013)

The professional development of language teachers covers four elements: a strong awareness of professional development, a positive and open development attitude, continuous accumulation, renewal of knowledge, and also, improvement of skills. Because of the requirements of the international market for college graduates, foreign language ability not only refers to basic language knowledge and skills but also includes the comprehensive ability to apply foreign languages in professional fields. Under the subject content shift of foreign language education in higher education, there must be some core competencies vital for foreign language teachers apart from solid language skills and teaching ability.

Attitude

In Evans's comprehensive model, teacher professional development fell into three dimensions: affection, behavior, and cognitive development, which corresponded to work attitude, professional performance, and professional knowledge (Evans, 2011). The attitude of professional development concerns professional ethics, development consciousness, professional beliefs, learning outlook, values,

and sense of social responsibility. Teaching is influenced by beliefs and in turn, leads to the modification and formation of belief systems. This intersection of attitude and belief creates a powerful combination that determines the instructional and learning decisions that teachers make (Raths, 2001) but also, we would argue, what they themselves are willing to learn.

As for the professional development of foreign language teachers at higher institutions, professional ethics, noble teaching sentiment, and engagement in teaching are the foundation; modest, prudent, and continuous learning are the premise; an open attitude towards subject content knowledge is the key; moreover, the willingness and efforts to obtain content knowledge through various ways are the guarantees.

Cross-Discipline Knowledge

Among the five characteristics of professional development proposed by Griffin et al. (2018), the content focus is the most prominent facet. Professional development is bound to concern teachers' professional knowledge, and content teaching skills, which contributes to teachers' professional competencies and development motivations. The transformation mode of pedagogical content illustrates a complexity-like understanding of the role of knowledge in teacher learning. Different forms of knowledge are synthesized in the learning processes (subject, pedagogy, and context knowledge) and incorporated into a unique one (Gess-Newsome, 2019).

The foreign language education that used to focus on pure language and literature has transited to the professional mode of instrumentality and humanism, thus forming a new situation of interdisciplinary knowledge and ability (Li, 2016). For foreign language teachers, grasping subject content knowledge as much as possible is the most important thing. By systematically learning knowledge in the fields of science, economy, law, management, education, and so forth, teachers can optimize the original structure of knowledge and make it be compound, diversified, and international, which achieves the goal of foreign language teaching under the background of higher education transformation.

Content-based Instruction Competence

According to Roy (2018), content-based instruction (CBI) was a language teaching model based on specific topics or subject content, emphasizing teaching language with subject content as the carrier, so that students could improve their comprehensive language application ability when exploring subject knowledge, and obtain subject professional knowledge through language learning. Based on the new curriculum teaching mode, teachers need to well integrate the content of professional subject knowledge with language skills, for laying a solid foundation for the cultivation of students' compound ability and international competitiveness. Then, CBI qualities have obviously become one of the essential core qualities of foreign language teachers.

Such competencies include teaching subject knowledge with new teaching ideas and content teaching methods, developing and selecting teaching materials, evaluating students' learning

effectiveness, communicating with others, positive psychological quality, and so on (Roy, 2018). With students' needs as the goal and language as the medium, CBI focuses on students' learning outcomes through content knowledge and real tasks in teaching.

Application of ICT

Due to ecological, social, and economic reasons, common issues like climate change, a decrease in biodiversity quickly, problems of poverty, and water resource shortage need to be resolved. Transdisciplinary inquiry and collective action are crucial for learning more knowledge. TPD in higher education institutions calls for integrated skills and knowledge for solving intricate problems, like cross-cultural communication, leadership, media literacy, and information communication technology (Hensley, 2018). In order to meet the high demand of students for cutting-edge knowledge, the cultivation and improvement of college foreign language teachers' application of ICT have become one of the core competencies in the new era of higher education, and the internal demand for TPD. That means teachers are required to have both basic information awareness and the ability to find, evaluate and effectively use the required information.

Factors Influencing Teacher Professional Development

According to Grundy and Robinson (2004), factors that lead to the lack of development space and objectives and ultimately restrict the professional development of teachers come from the influence of external elements in the category of social system on the one hand and individuals themselves on the other hand. External factors include environmental factors first. Individual development depends heavily on the social and psychological environment. In addition to social psychology, environmental factors still contain socioeconomic and cultural development, people's understanding and views on education, teachers' social status and value, educational reform, and development trends are also covered.

Opfer and Pedder (2011) identified three overlapping and recursive systems involved in teachers' professional learning: the individual teacher, the school, and the activity. The personal system of teachers encompasses their experiences, value for learning activities, obtained knowledge, and how these are enacted in their classroom practice. The school-level system involves contexts of the school that support teaching and learning, collective orientations and beliefs about learning, collective practicing, or norms of educational practicing in the school, and the capacity to realize shared learning goals.

As Garet et al. (2001) stated, content knowledge, active learning method, and relative learning activities were all significant for reinforcing teacher knowledge and skills. Further, the activity forms, teachers' work backgrounds (schools, majors, etc.), and the time of activities influence teacher learning a lot. Moreover, factors affecting school success concern positive feedback, and teacher evaluation, which contribute to effective professional development (Archibald et al., 2011).

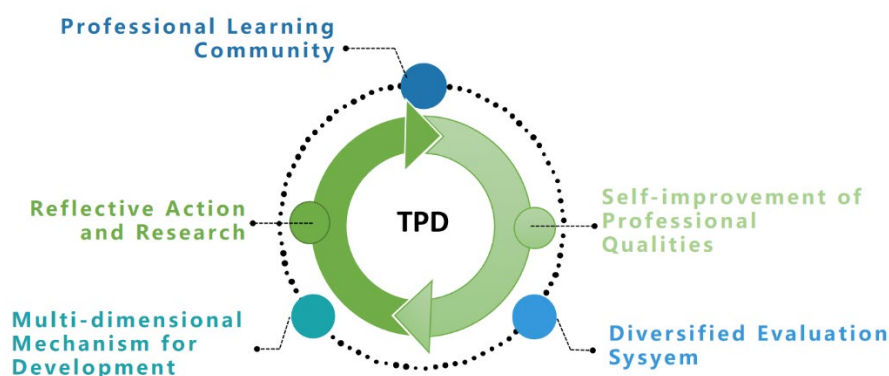
Drawing on the insights of Davis and Sumara (2006), teacher learning tended to be constituted

simultaneously in the activity of autonomous entities (teachers), collectives (such as grade level and subject groups), and subsystems within grander unities (schools within school systems within sociopolitical educational contexts). These systems and subsystems associated with teacher learning are interdependent and reciprocally influential. As a result, to explain teacher professional learning, one must consider what sort of local knowledge, problems, routines, and aspirations shape and are shaped by individual practices and beliefs. It involves the interplay of individuals, communities of teachers, and specific contexts in which trying to understand and improve teacher learning. When these elements bond, a learning community emerges, and the participating teachers are more likely to discuss problems, strategies, and solutions. Change in teaching behavior becomes an ongoing, collective responsibility rather than an individual one (Opfer & Pedder, 2011).

It is safe to conclude that factors influencing the professional development of foreign language teachers in higher education institutions mainly fall into four aspects: environment, organization, group, and individuals. An investigation of the internal and external factors affecting teaching, scientific research, and career development activities pointed out that internal motivation had more impacts on TPD than external motivation. Positive psychological capital, such as value orientation, self-efficacy, and self-determination motivation, significantly impacted teachers' engagement in professional development activities and the output effect of professional achievements (Li, 2017).

Strategies for Professional Development of Foreign Language Teachers

Strategies for TPD should focus on the content, active learning, collaboration, support from experts, and scientific evaluation (Postholm, 2012; DeMonte, 2013; Gökmenoğlu, 2015; Hammond, 2017). As is well known, interactions between the external drive and internal motivation are the law of progress of things, and there is no exception for TPD in higher education institutions. The professional development of foreign language teachers in higher education institutions can be better promoted by constructing an autonomous development model with a dual process, mainly driven internally, and assisted by external push (see Picture 1). Correspondingly, improving strategies are as follows, among which the first two belong to internal-driven types, and the other three are external-boosting.



Picture 1: Strategies Model for Teacher Professional Development with a Dual Process

Reflective Action and Research

Based on systematic reflection and exploration, teachers need to affirm or deny, strengthen, or modify the main behaviors in teaching, scientific research, and even social services through effective review, diagnosis, and self-monitoring. In addition, comprehensive and deep analysis of the direction and needs of professional development should be made to draw feasible solutions and lead themselves to optimize their ideas and behaviors in the process of dynamic development. In this process, teachers change from passive development to active growth, and then broaden their professional connotation and improve their professional level through continuous learning, reflection, and exploration of the realm of professional maturity. To sum up, teachers research in action, reflect in research, learn in reflection, develop in learning, and self-improve in development.

Self-improvement of Professional Qualities

In terms of the core competencies reviewed in the above section, the most important thing for foreign language teachers at higher education institutions is to optimize their own knowledge structure, enrich the cross-discipline knowledge and literacy, and improve their teaching ability for the digital trend through independent learning or academic promotion. Meanwhile, professional ethics, updated teaching ideas, and reversal of roles should not be excluded. What's more, relevant research is necessary to understand cutting-edge theories, which can also guide the self-improvement of professional qualities and contribute to autonomous professional development.

Professional Learning Community

DuFour (2002) thought that the professional learning community (PLC) should be implemented in schools, with all teachers and school leaders using specific strategies for school improvement. It is a group of professionals that meet regularly, share expertise, and work collaboratively to improve teachers' teaching strategies and students' academic performances. PLC is defined in the current study as a team for teaching and research that aims at the professional development of teachers, takes the interactions among teachers from various disciplines as a means, and cooperates to seek collective progress comprehensively, continuously, and actively. In such a community, language teachers and professional teachers collaborate on various aspects of the teaching process, including curriculum construction, content arrangement, and teaching design, to promote the rapid development of foreign language teachers' specialization. Building a professional community indicates that teachers' work will change from emphasizing classroom teaching to participating in the decision-making process and then performing teacher leadership.

Multi-dimensional Mechanism for Development

Establishing a multi-dimensional mechanism for development and training is the basis for the professional development and professional quality improvement of foreign language teachers. From the school level, policy support is needed, like a long-term mechanism for the construction of teaching staff, and platforms and effective measures to promote teachers' development. One way is to carry out school-

based training on the one hand; another is to deepen the collaborative education between institutions and enterprises through a highly cooperative training mechanism, which helps teachers to understand the development trend of the industry in real-time and broaden their professional vision, so as to enhance the practical ability of professional teaching. Last but not least, it is necessary to employ high-level talents with an educational background of multi-discipline, and degrees in “linguistics plus economics” or “linguistics plus management” will be preferred.

Diversified Evaluation System

A comprehensive system of teacher evaluation can help administrators fully understand and evaluate teachers’ performance in teaching, but it also encourages teachers’ development (Goe et al., 2018). To motivate TPD, and thus improve the quality of higher education, a diversified teacher evaluation system should be constructed. The diversification of evaluation can be embodied in body, content, and level. Multi-body evaluation means that except for traditional supervisor rating and peer review used in most schools, students, teachers, and parents can also participate in the evaluation process. Multi-content of evaluation advocates that apart from being observed in their classroom teaching, teachers should also be evaluated by the classroom artifacts and portfolios, their performance in teamwork, and students’ achievements. Finally, competencies in the above-mentioned aspects embody the components of professional practice, which can serve as criteria for teacher performance and effectiveness; however, different teaching evaluation standards should be formulated for teachers of different levels and professional stages. That’s what the multi-level evaluation indicates.

Conclusions and Implications

With the transformation of higher education in the world, foreign language educators are deeply experiencing changes and challenges. The professional development of foreign language teachers at higher education institutions calls for the overall improvement of teachers’ knowledge and competencies by a new model of a dual process of both the external promotion from social organizations and institutional regulations, as well as the endogenous value demands, and driving forces of teachers themselves to trigger the subjective consciousness and behavioral motivation.

This study elicited a porous perspective on the literature on TPD, and strategies to promote the professional development of foreign language teachers at higher education institutions. Its contribution was twofold: first, the researchers offered an analytic perspective on the topic framing this discussion within the Chinese context: connotation of TPD, core competencies of teachers at higher education institutions, and factors influencing TPD; the second, which extended beyond our borders, is that insights into a dual-driven model were provided, and more importantly, specific strategies for evidence-based practice were proposed.

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A STUDY ON THE RELATIONSHIP BETWEEN STUDENTS' LEARNING ACHIEVEMENT GOALS AND LEARNING INPUT AT NANCHONG NO. 10 MIDDLE SCHOOL IN SICHUAN PROVINCE, CHINA

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Abstract: This study aimed to explore the relationship between middle school students' learning achievement goals and learning input and analyze middle schools. Whether there are significant differences between students' learning achievement goals and learning input under different demographic variables, and then analyze the predictive power of each dimension of middle school students' learning achievement goals on middle school students' learning input and expect to put forward suggestions for middle school students to improve their learning input through this study. Students in Grade 1 and 2 of junior high school and senior high school in Nanchong City, China was taken as the research objects. A total of 839 questionnaires were distributed by means of questionnaire survey, and 757 valid questionnaires were used in the data analysis. The results showed that the current situation of middle school students' learning achievement goals and learning input was not good, some factors of demographic variables had an influence on them, the correlation between them was significant, and the regression effect of learning achievement on learning input was significant. Based on the findings, it was suggested that middle school administrators should pay attention to students' learning achievement goals and learning input, middle school teachers should pay attention to the influence of gender factors on learning achievement goals and learning input, and middle school students should pay attention to the influence of their own learning achievement goals and learning input on their academic performance.

Keywords: Learning Achievement Goal, Learning Input, Nanchong No.10 High School

Introduction

Under the background of current social development, learning has not only become an important channel for individual survival and development, but also an important carrier for the inheritance and promotion of human civilization. In a person's long academic career, any period has its irreplaceable significance, and in this precious learning career, the middle school stage is the key period

of personal physical and mental growth and the golden stage of personal academic development. The study in the middle school stage aims to lay a solid foundation for the development of learners' life (Cao, 2013). Based on the significance of learning in middle school in one's life, many researchers have carried out extensive and long-term research around middle school students' learning, with a view to understanding the learning situation of middle school students, exploring various factors affecting middle school students' learning in multiple dimensions, and helping middle school students realize their academic development.

Learning input has entered the research category of researchers, which is accompanied by the rise and development of positive psychology (Li, 2022). Some researchers have studied the concept of learning input. Kuh (2008) believed that learning input is the process of students' behavior, feeling and thinking while studying, and the most important indicator is the degree of effort; Fredficks (2004) put forward a new understanding of the concept of learning input. He pointed out that the degree of learners' participation had a positive impact on the development of learners' learning, and at the same time, it would effectively affect the teaching effect of teachers and maintain students' continuous cognitive engagement. Some researchers have studied the relationship between learning input and academic ability. The academic ability of college students is positively influenced by learning input, and the correlation between their goal motivation and learning input was the most significant (Tong, Fu & Zhao, 2022).

Zhang's (2020) research report showed that the goal of academic achievement would have a positive impact on the friendship and academic performance of primary and secondary school students. The research on the theory of learning achievement goal makes researchers and teachers deeply understand students' learning motivation and learning behavior tendency, and the information processing process of learners and the structure and development of academic community, which was of great practical significance for encouraging students to study better. The development of learning achievement goal has become one of the key theories to understand students' academic performance and mental development process (Huang & Song, 2019). Based on the previous research results on the positive influence of learning input and learning achievement goals on students' learning, this study intends to explore the influence and predictive power of middle school students' learning achievement goals on learning input from the perspective of the relationship between learning achievement goals and learning input through quantitative research.

Nanchong City, Sichuan Province, China, which is involved in this research, has a fine tradition of attaching importance to education since ancient times. Nanchong No. 10 Middle School, as a complete local middle school with more than 20 years' experience, has a stable student source structure and stable teaching results, and is representative of local middle schools. This study takes the middle school students in Nanchong No. 10 Middle School in Central Sichuan Province as the research object

to conduct a case study. From the perspective of the relationship between middle school students' learning achievement goals and learning input, this study used a quantitative research method to collect data through questionnaires, understand the students' learning status, and put forward scientific and reasonable learning suggestions.

Research Objectives

This study aimed to study the middle school students' learning achievement goals and learning commitment in Nanchong No. 10 Middle School, Sichuan Province, China, the research objectives are as follows:

- (1) To understand the current situation of middle school students' learning achievement goals.
- (2) To understand the current situation of middle school students' learning input.
- (3) To compare the differences of middle school students' learning achievement goals under different demographic variables.
- (4) To compare the differences of middle school students' learning input under different demographic variables.
- (5) To explore the relationship between middle school students' learning achievement goals and learning input.
- (6) To determine the impact of middle school students' learning achievement goals on learning input.

Literature Reviews

Definition of Learning Achievement Goals

Dweck (1986) formed a social cognitive model of motivation after a long-term in-depth study of children's psychological development and based on previous research results, and thus put forward the theory of achievement goal orientation. Achievement goal orientation is mainly manifested in individual's cognitive orientation to achievement situation, which can be roughly divided into two categories: learning goal orientation and achievement goal orientation. The orientation of learning goals stems from the concept of ability growth. These individuals all believe that ability can be changed and will increase with the completion of learning. Therefore, they are more inclined to establish mastery goals and work criteria, expecting to learn knowledge and enhance personal talents through learning work goals, and believe that improving their ability is success and completing their goals and tasks is success. Achievement goal orientation stems from the concept of ability entity. These individuals think that ability is unchangeable and will not change because of the learning process, so they are more inclined to set achievement development goals and expect to prove their highest talents in the learning process and avoid showing their low talents. They think that success is to let others think that they are

superior, and success is to avoid others' bad comments on themselves.

Related Research on Learning Achievement Goals

In addition to the long-term research and discussion on the definition and classification of learning achievement goals, previous researchers have studied the relationship between learning achievement goals and other factors. Some researchers have studied the correlation and predictive value between academic achievement goals and academic performance. Wolters (2004) showed through investigation that there was a positive correlation between high school students' math scores and their goal orientation, but this relationship was weak. Also, the middle school students who have mastered the goal orientation have a positive correlation between their math scores and their goal orientation, which is significant. However, looking at previous research results, the research conclusions about the relationship between individual academic achievement goals and academic achievements are not necessarily identical. According to the researcher's analysis, if the purpose of the exam is to help learners improve their mastery of knowledge points, then the significance of grasping goal orientation is also reflected here. If the score can be obtained simply by memory, then the grasp of goal orientation has little to do with the results, and this is roughly the reason why the conclusions of the research on the correlation between multiple learning achievement goals and academic performance are inconsistent. At the same time, some researchers have studied the correlation between learning achievement goals and cognition, self-control and learning strategies in the learning process.

In the 21st century, domestic research on learning achievement goals is gradually flourishing. Researchers have conducted analysis and discussion from different perspectives and combined with the actual situation in China. In the research on the correlation between learning achievement goals and learning effects, Zhang (2020) conducted a survey on the relationship between students' academic achievements and learning achievement goals, and the data showed that the academic achievement goals held by students could have an interaction with their academic achievements. Ding (2020) investigated on the correlation between the learning achievement goals of senior one students and their English learning achievements.

Definition of Learning Input

The concept of learning input has been deeply discussed by many researchers. Schaufeli (2002) discussed the group of learners as an extension of the work field, and proposed that learning input, which includes three dimensions of vitality, dedication, and focus, refers to the active, lasting, and perfect mental state related to learning.

Fredricks (2004) proposed the three-dimensional framework theory of learning input through research. He believed that three mutually independent dimensions together frame learning input. One was behavioral engagement, which refers to the high involvement of learners during their study in and out of school; The second was emotional engagement, which refers to learners' emotional response to

academic tasks or other people's evaluation and their attachment to the learning environment; The third was cognitive input, that is, the input of cognitive strategies and psychological capital used by learners in the learning process. These three dimensions were independent and interacted with each other. The experimental results showed that they are more likely to show influence in action and consciousness.

Related Research on Learning Input

To understand the relationship between college students' learning input and learning outcomes, the researchers conducted surveys in Australian and New Zealand universities. Through investigation, the researcher quantifies the actual state of students in the learning process and understands the quality level of activities and conditions related to college students' participation in learning, as well as the time and energy they spend. It is helpful for education and teaching managers and implementers to schedule and reorganize learning resources, optimize curriculum projects, improve teaching services, and finally achieve the goal of improving students' academic performance (Zhu, Zhang & Yang, 2019).

In the study of all dimensions of learning input, college students' online learning behavior engagement score was the highest, which showed that college students can actively participate in learning under the network learning environment, showing the characteristics of deep learning. The score of cognitive input dimension is the lowest, which shows that college students still stay at the shallow learning level in the online learning environment and seldom use cognitive strategies in the learning process. College students' online learning investment can significantly predict their deep learning ability, which further proves that college students' online learning investment is an important factor affecting their deep learning ability (Bai & Guo, 2022). In online teaching, a good teacher-student relationship can effectively improve students' learning attention and energy input, so that students have higher learning input. Learning input plays a partial mediating role in the influence of teacher-student relationship on learning performance (Zhang, Mu & Zhang, 2022).

Research on Middle School Students' Learning Achievement Goals and Learning Input

This research on middle school students' learning achievement goals and learning input was rare at home and abroad, and the research on the two variables was relatively rare in the middle school students' category. In the research on the correlation between learning achievement goals and learning input, Zhou (2018) deeply explored and analyzed the relationship among the three variables by investigating the correlation among senior high school students' psychological capital, learning achievement goals and learning input. The research results showed that the three variables of senior high school students' learning achievement goals, psychological capital and learning input were pairwise correlated. Based on the research conclusions, the researchers practiced a group with psychological capital as the core to explore effective ways to promote learning input. Because in the middle school stage, with the passage of time, the social expectations and family expectations of middle school students would gradually increase, and the difficulty of mathematics learning and the pressure

of examination would also increase obviously. Some middle school students had not fully adapted to the difficulties of mathematics learning, and their intrinsic motivation and mathematical cognition, behavior and emotional input level are on the decline (Zhang & Yang, 2022).

To find out the relationship among Tibetan middle school students' learning achievement goals, academic self-efficacy and learning input, Liang (2019) selected more than 600 Tibetan middle school students in Tibetan middle schools to conduct a questionnaire survey. The survey data showed that the mastery of Tibetan middle school students' learning achievement goals, achievement approaching, and mastery avoidance dimensions were positively correlated with their learning input, and the orientation level of achievement avoidance goals was negatively correlated with their learning input.

Methodology

This study used students in Grade 1 and 2 of junior high school and senior high school in Nanchong City, China as the research objects. A total of 839 questionnaires were distributed, after the questionnaire was recovered, the questionnaire data was input and sorted by Excel. Finally, 757 questionnaires were valid, and the effective questionnaire recovery rate was 90.23%.

This study used the Questionnaire on the Relationship between Middle School Students' Learning Achievement Goals and Learning Input, which was divided into two parts. The first part was the investigation of middle school students' personal background, that is, personal basic information, including: gender, divided into men and women; Household registration, divided into rural areas and towns; Grades were divided into Grade One, Grade Two, Grade One and Grade Two. The second part is the questionnaire of middle school students' learning achievement goals and learning input.

The reliability of the questionnaire on learning achievement goals, the α coefficients of the three dimensions were 0.784, 0.657 and 0.685 respectively, and the α coefficient of the questionnaire was 0.66. It can clearly be found that the α coefficients of the four dimensions were 0.922, 0.898, 0.955 and 0.878, respectively, and the α coefficient of the questionnaire was 0.80. The analysis results show that the internal consistency of variables and their dimensions is good, and at the same time, the reliability of each questionnaire is ideal.

This study used descriptive statistics, independent samples t-test, one-way ANOVA, Pearson correlation, hierarchical regression analysis and other methods to statistically analyze the obtained data.

Results

Demographic Analysis of Questionnaire Participants

In 757 valid samples of this study, three demographic variables, such as gender, household registration and learning stage, were investigated. The results are shown in Table 1.

Table 1: Statistical Table of Demographic Variables (N=757)

Demographic Variable	Group	N	Percentage
Gender	(1) Male	402	53.1
	(2) Female	355	46.9
Household Registration	(1) Rural areas	166	21.9
	(2) Urban areas	591	78.1
Learning Level	(1) Junior high school	295	38.9
	(2) High school	462	61.1

Descriptive Analysis of Learning Achievement Goal

The variables of learning achievement goals were divided into three dimensions, namely, five questions of mastery goal orientation, five questions of achievement approaching goal orientation and four questions of achievement avoidance goal orientation. The details are as shown in Table 2:

Table 2: Descriptive Statistical Table of Learning Achievement Goal (N=757)

Dimensions	N	M	SD	Analysis
Master The Goal Orientation	5	3.069	0.752	Moderate
Achievement Approaching Goal Orientation	5	2.988	0.855	Moderate
Achievement Avoidance Goal Orientation	4	4.008	0.882	Moderate
Learning Achievement Goal	14	3.308	0.513	Moderate

Descriptive Analysis of Learning Input

The variables of learning input are divided into four dimensions, namely, 5 questions of behavioral engagement, 6 questions of emotional engagement, 5 questions of cognitive engagement and 5 questions of engagement motivation. The score results of each dimension are showed in Table 3:

Table 3: Descriptive Statistics of Learning input Variables (N=757)

Dimensions	N	M	SD	Analysis
Behavioral Engagement	5	3.694	0.845	Moderate
Emotional Input	6	3.163	0.920	Moderate
Cognitive Input	5	3.276	0.889	Moderate
Input Power	5	2.467	0.992	Moderate
Learning Input	21	3.150	0.757	Moderate

Comparison of the Differences of Students with Different Areas and Schools in Each Dimension

Independent samples t-test was used to analyze the differences between the learning achievement goal variables and their mastery goal orientation, achievement approaching goal orientation and achievement avoidance goal orientation, and the learning input variables and their behavioral input, emotional input, cognitive input, and input motivation. The results are shown in Table 4 and 5.

Table 4: T-test Analysis of Students with Different Household Registrations in Each Dimension

Dimensions	Rural Areas (N=166)		Urban Areas (N=591)		T	P
	M	SD	M	SD		
Master the Goal Orientation	3.028	0.781	3.080	0.744	-0.794	0.427
Achievement Approaching Goal Orientation	2.853	0.818	3.026	0.862	-2.314*	0.021
Achievement Avoidance Goal Orientation	4.089	0.815	3.986	0.899	1.333	0.183
Learning Achievement Goal	3.269	0.508	3.320	0.515	-1.132	0.258
Behavioral Engagement	3.657	0.846	3.704	0.845	-0.641	0.522
Emotional Input	3.150	0.890	3.167	0.929	-0.214	0.830
Cognitive Input	3.245	0.886	3.284	0.890	-0.508	0.612
Input Power	2.463	0.981	2.468	0.996	-0.062	0.951
Learning Input	3.129	0.770	3.156	0.754	-0.406	0.685

Table 5: T-Test Analysis of Students in Different Learning Stages in Each Dimension

Dimensions	Junior High School (N=295)		Senior High School (N=462)		T	P
	M	SD	M	SD		
Master the Goal Orientation	3.342	0.790	2.894	0.672	8.043***	0.000
Achievement Approaching Goal Orientation	3.042	0.905	2.954	0.821	1.351	0.177
Achievement Avoidance Goal Orientation	3.982	0.971	4.025	0.821	-0.626	0.532
Learning Achievement Goal	3.418	0.555	3.239	0.472	4.576***	0.000
Behavioral Engagement	3.894	0.899	3.566	0.784	5.131***	0.000
Emotional Input	3.443	0.925	2.984	0.873	6.886***	0.000
Cognitive Input	3.517	0.947	3.121	0.814	6.122***	0.000
Input Power	2.750	1.125	2.286	0.850	6.060***	0.000
Learning Input	3.403	0.802	2.989	0.680	7.331***	0.000

Correlation Analysis

In this study, the Person correlation coefficient is used to analyze whether there is correlation between the two main variables. The overall relevant situation was shown in Table 6:

Table 6: Summary of Correlation Analysis of Variables

	1	2	3	4	5	6	7	8	9
1 Grasp the Goal	1								
2 Achievement Approaching Goal	.300**	1							
3 Achievement Avoidance Goal	.109**	-.193**	1						
4 Learning Achievement Goal	.756**	.658**	.434**	1					
5 Behavioral Engagement	.541**	.191**	.189**	.490**	1				
6 Emotional Input	.730**	.278**	0.065	.580**	.668**	1			
7 Cognitive Input	.566**	.224**	.075*	.466**	.569**	.637**	1		
8 Input Power	.508**	.178**	0.071	.407**	.415**	.626**	.557**	1	
9 Learning Input	.714**	.265**	.116**	.589**	.786**	.898**	.826**	.795**	1

**At the level of 0.01 (double tail), the correlation is significant. *At the level of 0.05 (two-tailed), the correlation is significant.

Regression Analysis

Regression analysis was based on Pearson correlation analysis to further explore the relationship between interpretation and prediction of variables. In this study, hierarchical regression and linear regression analysis were used to understand the influence of learning achievement goals on students' organizational commitment, the influence of learning achievement goals on learning input, the influence of students' organizational commitment on learning input, and the intermediary role of students' organizational commitment between learning achievement goals and learning input, results as shown in Table 7.

Table 7: Hierarchical Regression Analysis of Learning Achievement Goals on Learning Input

Model	R	R Square	R-Squared Change	F Value Change	Significant F-Value Change
1	.714	0.510	0.510	787.267	0.000
2	.716	0.513	0.003	4.429	0.036
3	.718	0.516	0.003	4.314	0.038

Model	Explanatory Variables	Standardization Coefficient B	T	Significance	VIF
1	Grasp the Goal	0.714	28.058	0.000	1.000
2	Grasp the Goal	0.698	26.193	0.000	1.099
	Achievement Approaching Goal	0.056	2.105	0.036	1.099
3	Grasp the Goal	0.688	25.460	0.000	1.135
	Achievement Approaching Goal	0.070	2.542	0.011	1.165
	Achievement Avoidance Goal	0.055	2.077	0.038	1.073

Model 1 Predictive Variables: Mastering Goals

Model 2 Predictors: Grasp the goal, and the achievement will approach the goal.

Model 3 Predictive variables: mastering the goal, achievement approaching the goal and achievement avoiding the goal.

Discussion

About the Correlation between Students' Learning Achievement Goals and Learning Input

The correlation between learning achievement goal and learning input in this study showed that the mastery of learning achievement goal orientation and achievement approaching goal orientation of middle school students were significantly correlated with each dimension of learning achievement goal and learning input, but the correlation between achievement avoidance goal orientation and emotional engagement and engagement motivation is not significant. This result was consistent with that of Zhou (2018), Liang (2019), Tu and Yang (2021). Li, Kong & Hou's (2022) research findings were consistent. There is a significant positive correlation between middle school students' learning achievement goals and learning input, and learning achievement goals had a significant predictive power on learning input. The reason why achievement avoidance goal orientation was not significantly related to emotional input and input motivation may be due to the rapid development of middle school students' minds and their vulnerability to environmental factors.

About Learning Achievement Goals and Learning input of Students with Different Demographics

In the study of demographic variables, gender and age were the common background factors to explore learning input (Gaytan, 2010), and because of the differences between boys and girls in learning input (Martin & Marsh, 2008), and the influence of age on learning input may be different, so this kind of research often tests both at the same time.

In this study, it is found that there are significant differences between learning achievement goals and learning input in middle school students' gender and grade. Zhou's (2022) intervention study on learning achievement goals also reached a similar conclusion. Higher vocational college students' social mobility belief, achievement goal orientation and learning input are all at a medium level, and there are some significant differences in demographic variables; There is a significant correlation among social mobility belief, achievement goal orientation and learning input of higher vocational students. The achievement goal orientation of higher vocational students has a significant partial mediating effect between social mobility belief and learning input, and social mobility belief can indirectly affect learning input through achievement goal orientation. It was verified that the differences in the influence on learning achievement goals in different countries or societies mainly come from the differences in the interpretation of the concept of learning achievement, as well as the existing local social context and traditional influence.

Conclusion

1. The current situation of students' learning achievement goals was not good and needs to be improved.

The results showed that the score of middle school students' academic achievement goal was only slightly higher than the middle level, though the score of achievement avoidance goal orientation was the highest. The score of achievement approaching goal orientation was the lowest, which was in the middle and low level, and the gap between them was not small.

2. Some factors of demographic variables had influence on middle school students' learning achievement goals.

The results showed that the learning achievement goal of middle school students was influenced by gender and learning level, and the affected factor was mastering the learning goal orientation, while other factors are not affected. In addition, the student's household registrations had no effect on the academic achievement goal.

3. There was a significant correlation between middle school students' learning achievement goals and learning input.

The results showed that the mastery of middle school students' learning achievement goals, learning goal orientation and achievement approaching goal orientation were significantly correlated

with all dimensions of learning achievement goals and learning input.

4. *The regression effect of middle school students' learning achievement on learning input was significant.*

The results of hierarchical regression showed that all dimensions of middle school students' learning achievement goals had significant effects on the hierarchical regression analysis of learning achievement and learning input, and the regression coefficient of mastering learning goal orientation had the strongest predictive power.

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RELATIONSHIP BETWEEN VOLUNTEERS' WORK INCENTIVE AND WORK ENGAGEMENT OF COLLEGE AND UNIVERSITY LIBRARY IN ZHENGZHOU CITY

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Abstract: This research aims to probe into the relationship between volunteers' work incentive and work engagement of college and university library in Zhengzhou City, Henan Province, P.R.C., which will analyze whether there is a significant difference between the work incentive and work engagement of volunteers with different background variables from college and university library in Zhengzhou City and examine the relationship between the work incentive and work engagement. In this study, questionnaires and SPSS 24.0 were used to analyze the samples from Zhengzhou Technology and Business University, Zhengzhou University of Light Industry and Zhengzhou College of Economics and Trade. The results are as follows: (1) The work engagement level of the college and university library volunteers with different genders, grades, place of domicile and volunteer service duration is of significant difference; (2) The work incentive level of the college and university library volunteers with different places of domicile, volunteer service lengths of time and selection experience is of significant difference; (3) The work incentive of college and university library volunteers is significantly positively related with the work engagement; (4) The work incentive of university library volunteers significantly predicts their work engagement. And corresponding suggestions for the incentive measures of college and university library volunteers and on how to improve the work engagement level of this group are provided.

Keywords: Work Incentive, Work Engagement, Library Volunteers, College and University Library

Introduction

In colleges and universities, books are another major source of knowledge for students after class, so libraries have often become one of the name cards of colleges and universities. However, millions of books and thousands of visits per day make the human resources of university libraries far from sufficient, thus, the position of library volunteer has come into being, which is often held by college/university students. The volunteer service can not only relieve the work pressure of librarians, but also provide social practice places for college/university students, and cultivate their work

experience, which is a win-win process (Li, 2013). By combing through the library volunteers related literature found on the one hand, from the research level and methods, most of the studies are only organized and analyzed from the policy or theoretical level, while a few studies identify the characteristics and needs of the individual volunteers through empirical research. On the other hand, in a small number of existing empirical studies, the variables such as “satisfaction” are usually taken as the outcome variables, that is, it is unable to highlight the subjective initiative of the volunteers in the service work, and it is difficult to make effective enlightenment for the library management.

Through the analysis of the volunteer management status of the library of Zhengzhou Technology and Business University the researcher is now working in, she finds that this university also encounter the situation in which it is easy to recruit student volunteers, but personnel mobility is large, and the personnel is extremely unstable. Through the preliminary observation and analysis, the researcher holds that the cause of this phenomenon may be that volunteers do not get the good incentives that match their personal needs, so their work enthusiasm is not high, their engagement is not sufficient, consequently, it is more difficult for them to get good incentives through performance evaluation, thus causing a vicious circle in the long run, and they eventually quit volunteer service. Therefore, this research will explore the influence of the incentive factors in the volunteer management on the engagement of college/university library student volunteer service and try to make suggestions for the volunteer management of college and university libraries.

Research Objectives

According to the above question statements and specific research problems, the objectives of this research can be clearly defined as the following six points: (1) To understand the work engagement status quo of library volunteers. (2) To understand the work incentives status quo of library volunteers. (3) To master the difference in the background variables of the library volunteers’ work engagement. (4) To master the differences in the background variables of the library volunteers’ work incentives. (5) To test the relationship between the work engagement and the work incentives of the library volunteers. (6) To test the influence of library volunteers’ work incentives on work engagement.

Literature Reviews

Work engagement in this research refers to a positive personal status. Kahn, who first proposed this concept, defined it as “that the members of the organization control themselves to integrate themselves with their working role” (1990). Work Engagement includes three factors, namely, vigor, dedication and absorption. Vigor mainly reflects the employees’ energy in the work, their willingness to involve themselves in the work, and their persistence in the face of difficulties. Dedication refers to the involvement of enthusiasm, inspiration, pride, and challenges in the work, which is both qualitative

and quantitative, and is therefore a deep involvement. Finally, it comes to the definition of absorption, which refers to paying full attention to work, losing oneself in the work without feeling the passage of time, and feeling very happy at work.

Work incentive of this research adopts the viewpoints of Zhang Wangcheng and Chen Feng (2021) that regard the college/university student volunteer incentive policy as the incentive needs of volunteers and maintain that its implementation will improve the volunteers' satisfaction, as a result, the internal incentive (award) will play a role in improving the volunteers' service enthusiasm for a long time. In addition, according to the dual-factor theory, the college/university student volunteer incentive policy can be divided into incentive category and motivation-hygiene category. Through interviewing the target group, sorting out the relevant documents and analyzing the factors, this study determines the three-dimensional structure of work incentive of school motivation-hygiene needs, organization incentive needs and off-school motivation-hygiene needs.

Methodology

This study will use questionnaires and data analysis methods to explore the current work engagement status of library service volunteers from three universities in Zhengzhou and understand their internal needs for volunteer services. Based on the survey results, this study will propose suggestions for establishing a reasonable long-term incentive mechanism for volunteer work in university libraries.

Results

Current Status of College and University library Volunteers' Work Engagement

According to the purpose of this research, 355 samples collected in this survey are uniformly analyzed using SPSS 24.0, which is to understand the current status of the volunteers' work engagement of university libraries. The work engagement scale used in this study is a 5-point scoring method. In general, the work engagement ($M=3.29$, $SD=0.930$) score of the sample in this study is at a moderate level. The dedication ($M=3.40$, $SD=1.053$) dimension scores the highest, followed by absorption ($M=3.37$, $SD=1.024$) and vigor ($M=3.11$, $SD=0.964$). See Table 1 for details.

Current Status of College and University Library Volunteers' Work Incentive

According to the purpose of this research, the 355 samples collected in this survey are uniformly analyzed using SPSS 24.0, which is to understand the current status of the volunteers' work incentive of university libraries. The work incentive scale used in this study is a 5-point scoring method. In general, the work incentive ($M=3.20$, $SD=0.902$) score of the sample in this study is at a moderate level. The school incentive ($M=3.29$, $SD=0.931$) scores the highest, followed by organization incentive ($M=3.26$, $SD=1.063$) and off-school incentive ($M=3.03$, $SD=1.039$). See Table 2 for details.

An Analysis of the Differences Among Subjects with Different Background Variables

This research will use SPSS 24.0 software to analyze the differences in work engagement and work incentive of the subjects with different gender, schools, grade, place of domicile, length of time of being a library service volunteer, times of participating in library volunteer service every week in the past six months, source of information about library volunteer service, and selection methods of library service volunteers, as well as the relationship between university library volunteers' work engagement and work incentive. The data analysis in this chapter mainly adopts independent sample t-test, one-way ANOVA, correlation analysis and regression analysis. The specific analysis results are as follows.

A Comparison of Gender Differences in Each Variable

The independent sample t-test is used to analyze the differences in work engagement and work incentive among volunteers of different genders. The scores of volunteers of different genders in each dimension are described as follows:

The scores at the vigor level are as follows: male (M=2.881, SD=0.895); Female (M=3.273, SD=0.983); T value=-3.860, P value=0.000. There are obvious differences in the vigor level between the volunteers of different genders, and the vigor level of female volunteers is significantly higher than that of male volunteers.

The scores at the dedication level are as follows: male (M=3.007, SD=0.919); Female (M=3.687, SD=1.055); T value=-6.343, P value=0.000. There are obvious differences in the level of dedication between the volunteers of different genders. The level of dedication of female volunteers is significantly higher than that of male volunteers.

The scores at absorption level are as follows: male (M=2.978, SD=0.927); Female (M=3.662, SD=0.997); T value=-6.586, P value=0.000. There are obvious differences in the level of absorption between the volunteers of different genders. The level of absorption of female volunteers is significantly higher than that of male volunteers.

The scores of overall work engagement variables are as follows: male (M=2.954, SD=0.819); Female (M=3.534, SD=0.911); T value=-6.094, P value=0.000. There are obvious differences in the level of absorption between the volunteers of different genders. The level of absorption of female volunteers is significantly higher than that of male volunteers.

The scores of school incentive are as follows: male (M=3.302, SD=0.970); Female (M=3.286, SD=0.904); T=0.157, P=0.875. There is no obvious difference between volunteers of different genders at the school incentive level.

The scores of off-school incentives are as follows: male (M=3.055, SD=1.025); Female (M=3.011, SD=1.053); T=0.390, P=0.697. There is no significant difference between volunteers of different genders in school incentive.

The scores of organization incentive are as follows: male (M=3.209, SD=1.012); Female

($M=3.292$, $SD=1.102$; T value= -0.727 , P value= 0.468). There was no significant difference between volunteers of different genders in school incentive.

The scores of overall work variable incentive are as follows: male ($M=3.197$, $SD=0.916$); Female ($M=3.203$, $SD=0.895$); T value= -0.063 , P value= 0.950 . There is no significant difference between volunteers of different genders in school incentive.

From the t-test of data analysis, it can be seen that the university library volunteers of different genders have significant differences in the overall work engagement variables and their dimensions, but not in the overall work incentive variables or their dimensions.

A Comparison of Volunteers with Different Places of Domicile in Each Variable

The independent sample t-test is used to analyze the differences in work engagement and work incentive of volunteers with different places of domicile. The scores of volunteers with different places of domicile in each dimension are described as follows:

The scores at vigor level are as follows: town ($M=3.249$, $SD=0.968$); rural area ($M=2.964$, $SD=0.943$); T value= 2.802 , P value= 0.005 . There are obvious differences in the level of vigor among volunteers with different places of domicile. The level of vigor of volunteers from cities and towns is significantly higher than that of volunteers with places of domicile in rural areas.

The scores at dedication level are as follows: town ($M=3.468$, $SD=1.006$); rural area ($M=3.328$, $SD=1.097$); T value= 1.256 , P value= 0.210 . There is no significant difference in the dedication level among volunteers with different places of domicile.

The scores at absorption level are as follows: town ($M=3.432$, $SD=1.007$); rural areas ($M=3.310$, $SD=1.040$); T value= 1.118 , P value= 0.264 . There was no significant difference in absorption level among volunteers with different places of domicile.

The scores of overall work engagement variables are as follows: town ($M=3.380$, $SD=0.905$); rural area ($M=3.194$, $SD=0.949$); T value= 1.885 , P value= 0.060 . There is no significant difference in the absorption level among volunteers with different place of domicile, but it has reached a marginal significance. The work engagement of the volunteers with places of domicile in cities towns is slightly higher than that in rural areas.

The scores of school incentives are as follows: urban areas ($M=3.073$, $SD=0.786$); rural areas ($M=3.511$, $SD=1.012$); T value= -4.553 , P value= 0.000 . There are significant differences in school incentives among volunteers with different places of domicile. Volunteers with places of domicile in rural areas pursue more school incentives than those with places of domicile in urban areas.

The scores of off-school incentives are as follows: urban areas ($M=2.568$, $SD=0.749$); rural area ($M=3.489$, $SD=1.086$); T value= -9.308 , P value= 0.000 . There are significant differences in school incentives among volunteers with different places of domicile. Volunteers with places of domicile in rural areas pursue more off-school incentives than those with places of domicile in urban areas.

The scores at the organization incentive level are as follows: urban areas ($M=2.896$, $SD=0.889$); rural areas ($M=3.615$, $SD=1.104$; T value = -6.768 , P value = 0.000). There are significant differences in school incentives among volunteers with different places of domicile. Volunteers in rural areas pursue more organizational incentives than volunteers in urban areas.

The scores at the overall level of the work variable incentives are as follows: town ($M=2.863$, $SD=0.659$); rural area ($M=3.536$, $SD=0.954$); T value = -7.574 , P value = 0.000 . There are significant differences in school incentives among volunteers with different places of domicile. Volunteers with places of domicile in rural areas pay more attention to the work incentive policies resulting in volunteer posts than those with places of domicile in urban areas.

From the t-test of data analysis of the overall work engagement variables and their dimensions, there are obvious differences only in vigor level among the university library volunteers in different places of domicile while there are no significant differences in the other levels; and that there are significant differences in the overall work incentive variables and their dimensions. Specifically, volunteers with places of domicile in rural areas pursue and care more about various incentive measures offered by volunteer positions.

A Comparison of the Variable Differences Among Volunteers in Different Schools

The ANOVA test is used to analyze the differences in work engagement and work incentive of library volunteers from different universities. The scores of volunteers from different universities in each dimension are described as follows:

The scores at vigor level are as follows: Zhengzhou Technology and Business University ($M=3.142$, $SD=0.959$); Zhengzhou University of Light Industry ($M=3.040$, $SD=0.955$); Zhengzhou University of Economics and Business ($M=3.152$, $SD=0.989$); F value = 0.510 ; P value = 0.601 . The ANOVA results show that there is no significant difference in the vigor level among volunteers from different schools.

The scores at dedication level are as follows: Zhengzhou Technology and Business University ($M=3.329$, $SD=0.996$); Zhengzhou University of Light Industry ($M=3.406$, $SD=1.135$); Zhengzhou University of Economics and Business ($M=3.469$, $SD=1.012$); F value = 0.485 ; P value = 0.616 . The ANOVA result shows that there is no significant difference in the dedication level among volunteers from different schools.

The scores at absorption level are as follows: Zhengzhou Technology and Business University ($M=3.371$, $SD=1.086$); Zhengzhou University of Light Industry ($M=3.412$, $SD=1.037$); Zhengzhou University of Economics and Business ($M=3.315$, $SD=0.934$); F value = 0.258 ; P value = 0.773 . ANOVA results show that there is no significant difference in the absorption level among volunteers from different schools.

The scores of overall work engagement variables are as follows: Zhengzhou Technology and

Business University (M=3.276, SD=0.915); Zhengzhou University of Light Industry (M=3.278, SD=0.963); Zhengzhou University of Economics and Business (M=3.312, SD=0.913); F value=0.050; P value=0.951. The ANOVA results show that there is no significant difference in the overall level of work engagement variables among volunteers from different schools.

The scores of the school incentive are as follows: Zhengzhou Technology and Business University (M=3.292, SD=0.978); Zhengzhou University of Light Industry (M=3.273, SD=0.938); Zhengzhou University of Economics and Business (M=3.321, SD=0.842); F value=0.075; P value=0.928. The ANOVA results show that there is no significant difference in the school incentive level among volunteers from different schools.

The scores of off-school incentives are as follows: Zhengzhou Technology and Business University (M=3.079, SD=1.057); Zhengzhou University of Light Industry (M=3.987, SD=1.033); Zhengzhou University of Economics and Business (M=3.027, SD=1.035); F value=0.248; P value=0.780. The ANOVA results show that there is no significant difference in the level of off-school incentives among volunteers from different schools.

The scores of organization incentives are as follows: Zhengzhou University of Technology and Business (M=3.310, SD=1.107); Zhengzhou University of Light Industry (M=3.252, SD=1.110); Zhengzhou University of Economics and Business (M=3.198, SD=0.950); F value=0.307; P value=0.736. The ANOVA results show that there is no significant difference in organization incentives among volunteers from different schools.

The scores of overall work incentive variables are as follows: Zhengzhou University of Technology and Business (M=3.232, SD=0.919); Zhengzhou University of Light Industry (M=3.179, SD=0.924); Zhengzhou University of Economics and Business (M=3.193, SD=0.860); F value=0.116; P value=0.890. The ANOVA results show that there is no significant difference in organization incentives among volunteers from different schools.

From the ANOVA data analysis, there is no significant difference among university library volunteers from different schools in terms of work engagement variables and their dimensions, work incentives and their dimensions.

A Comparison of Differences in Each Variable Among Volunteers of Different Years

The ANOVA test is used to analyze the differences in work engagement and work incentive of university library volunteers in different years. The scores of volunteers of different years in each dimension are described as follows:

The scores at vigor level are as follows: freshman (M=3.228, SD=0.959); sophomore (M=3.011, SD=0.944); junior (M=2.957, SD=0.941); senior (M=3.252, SD=0.999); F value=2.118; P value=0.098. The ANOVA results show that there is no significant difference in vigor among volunteers of different years.

The scores at dedication level are as follows: freshman (M=3.582, SD=0.967); sophomore (M=3.371, SD=1.067); junior (M=3.215, SD=1.074); senior (M=3.438, SD=0.986); F value=1.766; P value=0.153. The ANOVA results show that there is no significant difference in the dedication level among volunteers of different years.

The scores at absorption level are as follows: freshman (M=3.698, SD=0.986); sophomore (M=3.288, SD=1.008); junior (M=3.186, SD=1.043); senior (M=3.440, SD=1.031); F value=2.643; P value=0.049. The ANOVA results show that the difference in the level of dedication among volunteers of different years is that only the absorption level of freshmen is higher than that of seniors, and the difference among the other years is not obvious.

The scores of overall work engagement variables are as follows: freshman (M=3.462, SD=0.852); sophomore (M=3.220, SD=0.917); junior (M=3.116, SD=0.953); senior (M=3.373, SD=0.972); F value=2.375; P value=0.070. The ANOVA results show that there is no significant difference in the overall level of work engagement variables among volunteers of different years.

The scores of school incentives are as follows: freshman (M=3.422, SD=0.833); sophomore (M=3.341, SD=0.970); junior (M=3.223, SD=0.959); senior (M=3.184, SD=0.941); F value=1.168; P value=0.322. ANOVA results show that there is no significant difference in school incentives among volunteers of different years.

The scores of off-school incentives are as follows: freshmen (M=2.969, SD=1.095); sophomore (M=3.076, SD=1.031); junior (M=2.956, SD=1.073); senior (M=3.096, SD=0.971); F value=0.384; P value=0.765. The ANOVA results show that there is no significant difference in the level of off-school incentives among volunteers of different years.

The scores of organization incentives are as follows: freshman (M=3.321, SD=0.920); sophomore (M=3.360, SD=1.284); junior (M=3.099, SD=0.931); senior (M=3.230, SD=1.024); F value=1.071; P value=0.360. The ANOVA results show that there is no significant difference in organization incentives among volunteers of different years.

The scores of the overall work incentive variables are as follows: freshman (M=3.252, SD=0.855); sophomore (M=3.266, SD=0.947); junior (M=3.106, SD=0.901); senior (M=3.171, SD=0.899); F =0.609; P =0.609. The ANOVA results show no significant differences in the overall level of work incentive variables among volunteers of different years.

From the ANOVA of data analysis, it can be seen that only the absorption level of freshmen volunteers is significantly higher than that of junior volunteers while the rest is not obvious and that the differences in the overall work incentives and their various dimensions among university library volunteers of different years are not obvious.

A Comparison of the Differences in Each Variable Among Volunteers with Different Lengths of Time

The ANOVA test is used to analyze the differences in work engagement and work incentive among the library volunteers with different length of time. The scores of the library volunteers with different length of time in each dimension are described as follows:

The scores at vigor level are as follows: less than half a year ($M=3.361$, $SD=0.782$); More than half a year (inclusive) but less than one year ($M=3.533$, $SD=0.786$); More than one year (including) but less than two years ($M=2.660$, $SD=0.960$); More than two years (inclusive) ($M=1.866$, $SD=0.388$); F value= 58.225 ; P value= 0.000 . The ANOVA results show that there is a significant difference in the vigor of those who have become library volunteers at different times. Specifically, the vigor level of volunteers with service duration of less than one year is significantly higher than that of volunteers with service duration of 1-2 years, both of which are higher than that of volunteers with service duration of more than 2 years.

The score at dedication level is as follows: less than half a year ($M=3.875$, $SD=0.557$); More than half a year (inclusive) but less than one year ($M=3.783$, $SD=0.745$); More than one year (including) but less than two years ($M=2.909$, $SD=1.184$); More than two years (inclusive) ($M=1.813$, $SD=0.622$); F value= 84.427 ; P value= 0.000 . The ANOVA results show that there are significant differences in the level of dedication of those who have become library volunteers at different time. Specifically, the dedication level of volunteers with service duration of less than one year is significantly higher than that of volunteers with service duration of 1-2 years, both of which are higher than that of those with service duration of more than 2 years.

The scores at absorption level are as follows: less than half a year ($M=3.884$, $SD=0.761$); More than half a year (inclusive) but less than one year ($M=3.678$, $SD=0.761$); More than one year (including) but less than two years ($M=2.797$, $SD=1.136$); More than two years (inclusive) ($M=2.112$, $SD=0.709$); F value= 62.675 ; P value= 0.000 . The ANOVA results show that there are significant differences in the level of absorption of those who have become library volunteers at different time. Specifically, the absorption level of volunteers with service duration of less than one year is significantly higher than that of the volunteers with service duration of 1-2 years, and both of which are higher than that of those with service duration of more than 2 years.

The scores of overall work engagement variables are as follows: less than half a year ($M=3.696$, $SD=0.510$); More than half a year (inclusive) but less than one year ($M=3.664$, $SD=0.652$); More than one year (including) but less than two years ($M=2.788$, $SD=1.010$); More than two years (inclusive) ($M=1.920$, $SD=0.515$); F value= 88.369 ; P value= 0.000 . The ANOVA results show that there are significant differences in the level of absorption of those who have become library volunteers at different time. Specifically, the absorption level of volunteers who have served for less than one year is significantly higher than that of those who have served for 1-2 years, both of which are higher than that of those who have served for more than 2 years.

The scores of school incentives are as follows: less than half a year ($M=3.730$, $SD=0.654$); More than half a year (inclusive) but less than one year ($M=3.512$, $SD=0.734$); More than one year (including) but less than two years ($M=2.915$, $SD=1.035$); More than two years (inclusive) ($M=2.161$, $SD=0.741$); F value= 48.105 ; P value= 0.000 . The ANOVA results show that there are significant differences in school incentives of those who have become library volunteers at different time. Specifically, volunteers with service duration of less than one year have significantly higher level of school incentives than those with service duration of 1-2 years, both of whom have higher level of school incentives than those with service duration of more than 2 years.

The scores of off-school incentives are as follows: less than half a year ($M=3.447$, $SD=0.956$); More than half a year (inclusive) but less than one year ($M=3.200$, $SD=0.920$); More than one year (including) but less than two years ($M=2.723$, $SD=1.049$); More than two years (inclusive) ($M=1.976$, $SD=0.693$); F value= 28.275 ; P value= 0.000 . The ANOVA results show that there are significant differences in the off-school incentive level of those who have become library volunteers at different time. Specifically, the level of off-school incentives for volunteers with less than one year of service are significantly higher than that for those with 1-2 years of service, both of which are higher than that for those with more than 2 years of service.

The scores of organization incentive level are as follows: less than half a year ($M=3.682$, $SD=0.748$); More than half a year (inclusive) but less than one year ($M=3.526$, $SD=0.940$); More than one year (including) but less than two years ($M=2.860$, $SD=1.129$); More than two years (inclusive) ($M=2.018$, $SD=0.817$); F value= 40.569 ; P value= 0.000 . The ANOVA results show that there are significant differences in the level of organization incentives for volunteers who have become library volunteers at different time. Specifically, the organization incentives for volunteers with less than one year of service are significantly higher than that for those with 1-2 years of service, both of which are higher than that for those with more than 2 years of service.

The scores of overall work incentive variables are as follows: less than half a year ($M=3.628$, $SD=0.654$); More than half a year (inclusive) but less than one year ($M=3.420$, $SD=0.707$); More than one year (including) but less than two years ($M=2.839$, $SD=0.971$); More than two years (inclusive) ($M=2.060$, $SD=0.684$); F value= 51.863 ; P value= 0.000 . The ANOVA results show that volunteers who have become library volunteers with different lengths of time have significant differences in the overall level of work incentive variables. Specifically, volunteers who have served for less than one year have significantly higher work incentive than those who have served for 1-2 years, both of whom have higher work incentive than those who have served for more than 2 years.

From the ANOVA of data analysis, it can be seen that there are significant differences in the overall work engagement variable and its dimensions, and the overall work incentive and its dimensions in terms of the volunteers' different lengths of time, and that the specific difference trends in the two

variables are consistent, that is, the volunteers with service duration of less than one year have higher scores in the overall work engagement and work incentive and their respective dimension than those with service duration of 1-2 years, both of whom have higher scores than those with service duration of more than 2 years.

A Comparison of Differences in Each Variable of Volunteers with Different Volunteer Service Frequencies

The ANOVA test is used to analyze the differences in work engagement and work incentive among the library volunteers with different volunteer service frequencies. The scores of library volunteers with different volunteer service frequencies in all dimensions are described as follows:

The scores at vigor level are as follows: 1-2 times a week (M=3.235, SD=0.929); 3-4 times a week (M=3.028, SD=1.000); 5 or more times a week (M=3.145, SD=0.936); F value=1.119; P value=0.328. The ANOVA results show that there is no significant difference in vigor among volunteers with different service frequencies.

The scores at dedication level are as follows: 1-2 times a week (M=3.441, SD=1.008); 3-4 times a week (M=3.329, SD=1.028); 5 or more times a week (M=3.459, SD=1.053); F value=0.620; P value=0.539. The ANOVA results show that there is no significant difference in the level of dedication among volunteers with different service frequencies.

The scores at absorption level are as follows: 1-2 times a week (M=3.507, SD=0.922); 3-4 times a week (M=3.263, SD=1.066); 5 or more times a week (M=3.441, SD=1.007); F value=1.714; P value=0.182. The ANOVA results show that there is no significant difference in the level of absorption among volunteers with different service frequencies.

The scores of overall work engagement variables are as follows: 1-2 times a week (M=3.388, SD=0.874); 3-4 times a week (M=3.203, SD=0.968); 5 or more times a week (M=3.343, SD=0.906); F value=1.220; P value=0.296. The ANOVA results show that there is no significant difference in the level of overall work engagement variables among volunteers with different service frequencies.

The scores at the school incentive level are as follows: 1-2 times per week (M=3.419, SD=0.938); 3-4 times per week (M=3.223, SD=0.955); 5 times per week (M=3.325, SD=0.901); F value=1.031; P value=0.358. The ANOVA results show no significant differences at the school incentive level among volunteers with different service frequencies.

The scores at the off-school incentive level are as follows: 1-2 times per week (M=3.213, SD=1.104); 3-4 times per week (M=2.928, SD=1.004); 5 times per week (M=3.075, SD=1.049); F value=1.741; P value=0.177. The ANOVA results show no significant differences at the off-school incentive level among volunteers with different service frequencies.

The scores at the organization incentive level are as follows: 1-2 times per week (M=3.059, SD=1.003); 3-4 times per week (M=3.116, SD=1.138); 5 times per week (M=3.262, SD=0.998); F value

=2.123; P value =0.121. The ANOVA results show no significant differences at the organization incentive level among volunteers with different service frequencies.

The scores of overall work incentive variables are as follows: 1-2 times per week (M=3.383, SD=0.914); 3-4 times per week (M=3.114, SD=0.907); 5 times per week (M=3.229, SD=0.887); F value =1.913; P value =0.1449. The ANOVA results show no significant difference at the overall level of the work incentive variables among volunteers with different service frequencies.

From the ANOVA of data analysis, it is can be seen that there is no significant difference in the overall work engagement variable and its dimensions as well as the overall work incentive and its dimensions.

A Comparison of Differences in Each Variable of Volunteers from Different Volunteer Information Sources

The ANOVA test is used to analyze the differences in work engagement and work incentive of volunteers from different volunteer information sources. The number of samples with information sources of “other” is few, with only three students, so they are not included in the analysis of difference. The scores of volunteers from different volunteer information sources in each dimension are described as follows:

The scores at vigor level are as follows: Notification of classmate / teacher / friend (M=3.141, SD=0.967); library official website / public account / microblog (M=3.041, SD=0.943); publicity of recruitment of school / student / community (M=3.150, SD=0.989); F value =0.481; P value =0.619. The ANOVA results show no significant differences at the vigor level among volunteers from different volunteer information sources.

The scores at dedication level are as follows: Notification of classmate / teacher / friend (M=3.320, SD=1.079); library official website / public account / microblog (M=3.470, SD=1.022); publicity of recruitment of school / student / community (M=3.423, SD=1.060); F value =0.660; P value =0.517. The ANOVA results show no significant differences at the dedication level among volunteers from different volunteer information sources.

The scores at absorption level are as follows: Notification of classmate / teacher / friend (M=3.290, SD=0.988); library official website / public account / microblog (M=3.428, SD=1.007); publicity of recruitment of school / student / community (M=3.390, SD=1.090); F value =0.595; P value =0.552. The ANOVA results show no significant differences at the dedication level among volunteers from different sources of volunteer information.

The score of overall work engagement variables are as follows: Notification of students/teachers/friends (M=3.248, SD=0.939); library official website/official account/microblog (M=3.306, SD=0.917); publicity and recruitment of schools/students/associations (M=3.317, SD=0.941); F value=0.184; P value=0.832. ANOVA results show that there is no significant difference

in the overall level of work engagement variables among volunteers from different volunteer information sources.

The scores at school incentive level are as follows: Notification of classmate/teacher/friend (M=3.308, SD=0.947); library official website/official account/microblog (M=3.299, SD=0.878); Publicity and recruitment of school/student/association (M=3.275, SD=0.977); F value=0.037; P value=0.964. ANOVA results show that there is no significant difference in the school incentive level among volunteers from different volunteer information sources.

The scores of off-school incentives are as follows: notification of classmate/teacher/friend (M=2.922, SD=1.027); library official website/official account/microblog (M=3.155, SD=1.026); publicity and recruitment of school/student/association (M=2.992, SD=1.056); F value=1.677; P value=0.188. The ANOVA results show that there is no significant difference at the incentive level among volunteers from different volunteer information sources.

The scores at the organization incentive level are as follows: notification of classmate/teacher/friend (M=3.143, SD=1.013); library official website/official account/microblog (M=3.309, SD=1.118); publicity and recruitment of school/student/association (M=3.338, SD=1.057); F value=1.138; P value=0.322. ANOVA results show that there is no significant difference in organizational incentive among volunteers from different volunteer information sources.

The score of overall incentive variables are as follows: notification of classmate / teacher / friend (M=3.139, SD=0.893); library official website / public account / microblog (M=3.258, SD=0.894); publicity of recruitment of school / student / community (M=3.208, SD=0.921); F value =0.553; P value =0.576. The ANOVA results show there is no significant differences in the overall level of incentive variables among volunteers from different sources of volunteer information.

From the ANOVA data analysis, there is no significant difference in the overall work engagement variables and their dimensions, the overall work incentive and their dimensions among volunteers from different volunteer information sources.

A Comparison of Each Variable Among Volunteers with Different Selection Experiences

The ANOVA test is used to analyze the differences in work engagement and work incentive of the volunteers with different selection experiences. The number of samples with information source of “others” is too few, only 3 people, The number of samples with information sources of “other” is few, with only three students, so they are not included in the analysis of differences. The scores of volunteers with different selection experiences in each dimension are described as follows:

The scores of at vigor level are as follows: neither (M=3.041, SD=0.936); Resume only (M=3.125, SD=0.914); Interview only (M=3.213, SD=1.004); Both (M=3.018, SD=1.003); F value=0.730; P value=0.535. The ANOVA results show that there is no significant difference in volunteers' vigor with different selection experiences.

The scores at dedication level are as follows: Neither (M=3.293, SD=1.058); Resume only (M=3.436, SD=0.741); Interview only (M=3.448, SD=1.160); Both (M=3.355, SD=1.087); F value=0.324; P value=0.808. The ANOVA results show that there is no significant difference in dedication level among volunteers with different selection experiences.

The scores at absorption level are as follows: Neither (M=3.320, SD=1.093); Resume only (M=3.366, SD=0.959); Interview only (M=3.489, SD=1.070); Both (M=3.283, SD=1.031); F value=0.628; P value=0.597. The ANOVA results show that there is no significant difference in the absorption level among volunteers with different selection experiences.

The scores of work engagement variables at the overall level are as follows: Neither (M=3.212, SD=0.962); Resume only (M=3.306, SD=0.853); Interview only (M=3.377, SD=0.980); Both (M=3.218, SD=0.964); F value=0.579; P value=0.629. The ANOVA results show that there is no significant difference in the overall level of work engagement variables among volunteers with different selection experiences.

The scores at the school incentive level are as follows: Neither (M=3.400, SD=1.009); Resume only (M=3.365, SD=0.951); Interview only (M=3.256, SD=0.870); Both (M=3.194, SD=0.926); F value=0.861; P value=0.462. The ANOVA results showed that there was no significant difference in the school incentive level among volunteers with different selection experiences.

The scores at off-school incentives level are as follows: Neither (M=3.178, SD=1.102); Resume only (M=3.219, SD=1.047); Interview only (M=2.872, SD=0.956); Both (M=2.881, SD=1.043); F value=3.040; P value=0.029. The ANOVA results show that volunteers with different selection experiences have significant differences in the level of off-school incentive. Specifically, volunteers who have only been selected by resume have higher motivation for out of school motivation than those who have only been interviewed and experienced.

The scores at the organization incentive level are as follows: Neither (M=3.572, SD=1.080); Resume only (M=3.290, SD=0.986); Interview only (M=3.239, SD=1.186); Both (M=3.092, SD=1.010); F value=2.220; P value=0.088. The ANOVA results show that there is no significant difference in organization incentive among volunteers with different selection experiences.

The scores of overall incentive variables are as follows: Neither (M=3.385, SD=0.944); Resume only (M=3.297, SD=0.907); Interview only (M=3.133, SD=0.848); Both (M=3.066, SD=0.911); F value=2.008; P value=0.113. The ANOVA results show that there is no significant difference in the overall level of incentive variables among volunteers with different selection experiences.

From the ANOVA of data analysis, it can be seen that the volunteers from different volunteer information sources have no significant differences in the overall work engagement variables and their dimensions and that there are significant differences in off-school incentives in the overall and various dimensions of work incentive.

A Correlation Analysis Between University Library Volunteers' Work Engagement and Work Incentive

Through Pearson correlation coefficient analysis, the correlation analysis results between university library volunteers' work engagement and work incentive are described as follows:

(1) There is a significant positive correlation respectively between vigor and dedication ($r=0.737$, $p=0.000$), between vigor and absorption ($r=0.713$, $p=0.000$), between vigor and work engagement ($r=0.891$, $p=0.000$), between vigor and school incentive ($r=0.540$, $p=0.000$), between vigor and on-school incentive ($r=0.389$, $p=0.000$), between vigor and organization incentive ($r=0.514$, $p=0.000$) and between vigor and work incentive ($r=0.539$, $p=0.000$).

(2) There is a significant positive correlation respectively between dedication and absorption ($r=0.840$, $p=0.000$), between dedication and job involvement ($r=0.941$, $p=0.000$), between dedication and school incentive ($r=0.641$, $p=0.000$), between dedication and off-school incentive ($r=0.537$, $p=0.000$), between dedication and organization incentive ($r=0.613$, $p=0.000$), and between dedication and work incentive ($r=0.667$, $p=0.000$).

(3) There is a significant positive correlation respectively between absorption and work engagement ($r=0.920$, $p=0.000$), between absorption and school incentive ($r=0.636$, $p=0.000$), between absorption and off-school motivation ($r=0.517$, $p=0.000$), between absorption and organization incentive ($r=0.889$, $p=0.000$) and between absorption and work incentive ($r=0.638$, $p=0.000$).

(4) There is a significant positive correlation respectively between work engagement and school incentive ($r=0.660$, $p=0.000$), between work engagement and off-school incentive ($r=0.524$, $p=0.000$) ($r=0.524$, $p=0.000$), between work engagement and organization incentive ($r=0.613$, $p=0.000$), between work engagement and work incentive ($r=0.670$, $p=0.000$).

(5) There is a significant positive correlation respectively between school incentive and off-school incentive ($r=0.745$, $p=0.000$), between school incentive and organization incentive ($r=0.673$, $p=0.000$), and between school incentive and work incentive ($r=0.905$, $p=0.000$).

(6) There is a significant positive correlation respectively between off-school incentive and organization incentive ($r=0.706$, $p=0.000$), and between off-school incentive and work incentive ($r=0.907$, $p=0.000$).

(7) There is a significant positive correlation between organization incentive and work incentive ($r=0.880$, $p=0.000$).

Conclusion

Based on the above research results, specific suggestions are provided for the university library volunteer managers, etc. Finally, specific suggestions are proposed for future research.

The Management Personnel of College and University Library Volunteers Should Pay

Attention to the Volunteers' Individual Characteristics and Group characteristics and Select More Suitable Candidates for Volunteer Positions.

The result of this research is that female volunteers are significantly higher than male volunteers in work engagement, but there is no significant difference between the two in work incentive, which means that the gender differences in volunteer work engagement do not come from organizational incentives and individual motivation to participate in volunteer service, but may come from the characteristics of different gender groups, such as altruism, personality traits, etc. At the same time, this research also finds out that there is significant difference in volunteers' work engagement and work incentive among different years. The volunteers in lower years and with shorter service lengths of time often have enthusiasm for service and considerable work engagement. Therefore, library volunteer managers can pay more attention to the characteristics of individuals who have performed well in volunteer service in their daily management and conduct selective recruitment when selecting and recruiting volunteers. Furthermore, future research can also analyze the capacity needs of different volunteer positions or functions in libraries and assign more appropriate positions to different volunteers.

The Management Personnel of College and University Library Volunteers Should Pay More Attention to the Volunteers' individual Needs and Motivations, and Hierarchically Establish a Diversified and Personalized Long-term Incentive mechanism for Volunteers.

The research result shows that volunteers with places of domicile in rural areas are more likely to pursue various incentive measures brought about by volunteer service than those with places of domicile in urban areas, and show lower vigor than those in urban areas, as may be that volunteers from rural areas often face greater pressure in life and study, so they pay more attention to various preferential treatment and subsidies from volunteer service. In addition, volunteers with different service lengths of time have significant differences in work incentive and their dimensions, which indicates that individuals on different volunteering stages have different needs for volunteering. For novice volunteers who have just participated in volunteering, the material and academic incentives provided by volunteering are still attractive, while volunteers who have participated in volunteering for a long time may have more internal self-satisfaction, such as a sense of belonging, a sense of responsibility, etc, which suggests that university library volunteer managers should pay attention to the needs of different volunteers and establish diversified and personalized incentive measures in the existing volunteer incentive mechanism.

The Management Personnel of College and University Library Volunteers Should Pay More Attention to the Engagement Level of the Volunteer Team, and Provide Reasonable Incentives for Low-level Volunteers or Reserve Personnel in Advance

The work engagement of the survey sample in this research is at the medium level. The above-mentioned high level of work engagement can positively predict the volunteers' work happiness,

effectively predict their organizational commitment and lower their turnover intention. Therefore, increasing the volunteers' work engagement level is an effective way to solve the college and university library volunteers' practical problem of "easy recruitment and fast loss". During the survey of this study, the volunteers who left their posts because of their low level of work engagement were no longer in the sampling range, so the relationship between work engagement and turnover rate cannot be directly confirmed. However, this research result is that the score of the existing volunteer teams in terms of vigor is relatively lower, compared with dedication and absorption, which indicates that library volunteer managers should take measures against this problem. That the volunteers have low vigor may come from the simple, boring work content, or lack a sense of value, achievement, as well as a sense of gain. Therefore, the library volunteer managers should pay more attention to the behavior and mental outlook of the volunteers in their daily work, and appropriately motivate the volunteers with poor work performance. When it is predicted that the volunteers are about to leave, they should prepare the work candidates in advance to avoid the shortage of staff due to poor personnel handover.

Recommendations for Future Related Research

First of all, the existing research on the empirical research of university library volunteers is less, and the research on the incentive mechanism of volunteers from the psychological level is even less. The management of the organization is fundamentally the management of personnel, so the future research should further explore the motivation source of college student library volunteers so as to establish a long-term incentive mechanism.

Secondly, since the degree of matching among groups with different individual characteristics and group characteristics and volunteer posts is not the same, future research can also analyze the capacity needs of different library volunteer posts or functions based on the perspective of "person-post matching", allocate more appropriate posts and arrange more appropriate jobs for different volunteers so as to maintain the efficient operation of posts and organizational operations.

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THE INFLUENCE OF PRIMARY SCHOOL TEACHERS' ORGANIZATIONAL COMMITMENT ON TURNOVER INTENTION IN AN EDUCATION GROUP IN JINAN CITY, CHINA

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Abstract: This purpose of this study was to explore the relationship between organizational commitment and turnover intention of primary school teachers in Jinan, Shandong Province. The researcher selected 240 primary school teachers as research objects by random sampling, and collected 179 valid questionnaires, then processed and analyzed data collected by SPSS, and conducted descriptive statistical analysis of organizational commitment and turnover intention and their differences in demographic variables, correlation analysis and regression analysis. The results of the study revealed: The organizational commitment and turnover intention of primary school teachers in Jinan were at medium level; In organizational commitment, team affective commitment dimension scored the highest, while normative commitment dimension scored the lowest; In the turnover intention, leaving school dimension scored the highest, while leaving the education field dimension scored the lowest. There were significant differences in organizational commitment in terms of gender, age, marital status, and monthly wage; There were significant differences in turnover intention in terms of gender, age, staffing status and monthly wage. There was a negative correlation between the organizational commitment and the turnover intention of primary school teachers in Jinan, Shandong Province. Therefore, some suggestions are put forward to improve teachers' emotional commitment, normative commitment, and continuous commitment.

Keywords: Primary School Teachers, Organizational Commitment, Turnover Intention, Influencing Factors

Introduction

Research Background

With the continuous development of knowledge economy and the role of talents in the modern competition, China's basic education has advanced rapidly in the past few years. It's urgent to improve the teaching quality of primary schools, establish a high-quality teaching team, enhance the professionalism and stability of the teaching staff, and take the construction of elementary school

teachers as the important content of China's basic education development. However, in current Chinese elementary schools, the phenomenon of teacher drain is still extremely serious. According to relevant data, in some areas, one-third of teachers resign from their positions, and showed a young trend. Young teachers aged 25-35 have an increasing turnover intention due to poor living and working conditions, family pressure and heavy teaching tasks, which also affects the stability of primary school teachers.

Organizational commitment is a positive assessment for teachers and has a significant impact on their work. Organizational commitment is an individual's recognition and trust in aims and values of his or her organization. There are three influencing factors for employee performance: affective commitment, continuance commitment and normative commitment. Affective commitment means the recognition and acceptance of the organization; Continuance commitment is manifested in individual's willingness to stay in the organization as he or she realizes that the sinking costs will increase with the investment in the system; Normative commitment is manifested by employees' acceptance of universal ethics in their jobs, feeling that they have a responsibility to stay in the organization. It's argued that affective commitment reflects the content of organizational concept; while continuance commitment and normative commitment belong to the behavior category, which can effectively predict the employee's turnover behavior. The same is true for primary school teachers, only by improving their enthusiasm, can schools promote the teaching quality while reducing talent loss, and provide strong normative commitment for teachers, create good affective commitment, and ensure long-term commitment.

Teacher is one of the most stable occupations in today's fast-paced life, several college graduates will consider teaching as their first choice of profession. It is widely believed that teachers have high social recognition, handsome salary and social security, and strong job stability. However, the current problems of unsatisfactory salary, hindered promotion, and bottlenecks in career development of elementary school teachers have resulted to a serious turnover intention, which is unfavorable to improve the teaching standards of basic education.

Therefore, this study took this topic as starting point, explored the relationship between organization commitment and turnover intention of the primary school teachers of an education group in Shandong Province, to give some suggestions to reduce the turnover intention of primary and secondary school teachers.

Research Questions

(1) What are the differences in organizational commitment among primary school teachers in terms of gender, age, teaching age, education degree, marital status, professional titles, staffing status and monthly wage? (2) What are the differences in turnover intention among primary school teachers in terms of gender, age, teaching age, education degree, marital status, professional titles, staffing status and monthly wage? (3) What is the relationship between organizational commitment and turnover

intention among primary school teachers?

Research Objectives

(1) To examine whether there are significant differences in the organizational commitments in terms of gender, age, teaching age, education degree, marital status, professional titles, staffing status and monthly wage. (2) To examine whether there are significant differences in the turnover intention in terms of gender, age, teaching age, education degree, marital status, professional titles, staffing status and monthly wage. (3) To examine whether there is the relationship between organizational commitment and turnover intention of primary and secondary school teachers in Jinan.

Research Scopes

The research objects are primary school teachers of Jinan Jingwu Education Group, and two variables: organizational commitment and turnover intention are used as the basis for the research process, and convenience sampling is used. The researcher prepared the questionnaire based on the sampling table developed by Krejci & Morgan (1970), then selected 240 teachers to distribute 240 online questionnaires, finally collected 218 valid questionnaires, with a return rate of over 90%.

Research Significance

In this paper, the academic results of primary school teachers are less, and the research on teacher groups is more concentrated on college teachers or teachers in private schools. This paper takes primary school teachers as the research object and explores the relationship between organizational commitment and turnover tendency, which has certain innovative and theoretical value. From the practical significance, in the face of the current increase in the turnover rate of teachers and the increase in the number of departures, it is of certain practical significance to study how to effectively reduce the tendency of teachers to leave, and by exploring the correlation between the two, summarize and analyze the main influencing factors of primary school teachers' turnover tendency, so as to reduce the turnover rate of primary school teachers and provide management suggestions for the formation of a stable and good primary school teacher team.

Theoretical Framework

This study aimed to determine the intrinsic association between organizational commitment and turnover tendency of primary school teachers in Jinan, Shandong Province under different demographic background variables, based on a questionnaire by Krejcie and Morgan (1970).

(1) Background variables: gender, age, teaching experience, educational background, marital status, professional title, monthly salary income; (2) Independent variables: organizational commitment, emotional commitment, normative commitment, continuous commitment; (3) Dependent variables: tendency to leave, leave the school, leave the education industry.

Hypotheses

H1: Under different background variables, there are significant differences in the organizational

commitment among primary school teachers of Jinan Jingwu Education Group.

H2: Under different background variables, there are significant differences in the turnover intention among primary school teachers of Jingwu Education Group.

H3: There is a negative correlation between the organizational commitment and the turnover intention among primary school teachers of Jinan Jingwu Education Group.

H4: The organizational commitment has a negative predictive effect on the turnover intention among primary school teachers of Jinan Jingwu Education Group.

Literatures Review

Organizational commitment is an individual's recognition and trust in the goals and values of the organization, and the positive emotional experience, and it's an important employee attitude variable that has an important impact on job performance. The definition of organizational commitment was firstly proposed by American sociologist Becker (1960).

Foreign scholars divided organizational commitment into different levels, i.e., from one level to multi-level. Becker (1960) argued the first level was "economic commitment", the second was "assurance of attitude and action", and thirdly "affective commitment", "continuance commitment" and "normative commitment". Blau & Gary (2001) divided organizational commitment into four levels: production commitment, normative commitment, cumulative cost commitment and option-limiting commitment. Swales (2002) divided it into four levels: production commitment, continuance commitment, normative commitment, and action commitment. In Teachers' Organizational Commitment, Song & Cai (2005) divided teachers' organizational obligations into four levels: emotions, ideals, norms, and devotion. Based on Chinese environment Liu (2002) proposed three dimensions of the organizational commitment: affective commitment, continuance commitment and normative commitment, which were also applicable.

Mi & Chen (2018) believed that organizational commitment was a summary of one's attitudes and behaviors towards his or her organization. Cheng & Yu (2019) indicated teachers' recognition and participation was an organizational commitment that reflected their working status and performance. Wang & Li (2011) believed that employees' obligations towards the company represented their willingness to stay in the company, they would do their best to serve the company with loyalty.

Ouyang (1994) proposed that the so-called turnover intention was the employee has the idea to leave the organization, and this idea may cause the employee's real turnover behavior. Liu (1994) pointed out that the so-called turnover intention was the employee's attitude towards leaving the position, when the employee had a plan and purpose to leave, i.e., the employee's psychological state before the actual turnover behavior.

Chinese scholars mainly explained the concept of turnover intention from psychological theory

and attitude theory. When employees' psychological needs cannot be satisfied, such as the working environment, promotion path and incentive policy, they would have the turnover idea. Some scholars would take the turnover intention as a predictive factor of the turnover behavior. From the dimensions of turnover intention, most scholars divided it two aspects: quit the current job, and find other job opportunities.

Foreign scholars, based on different research objects and contents, have come up with four dimensions of turnover intention: the attitude towards the current organization, the turnover idea, and the possibility of finding other jobs, and the last dimension is differing from various research contents.

Along with the development of social economy, the issue of employee turnover has attracted extensive attention from Chinese and foreign scholars. Many scholars have measured employees' turnover intention and analyzed the turnover reasons from a quantitative perspective. Mobley & Homen (1978) divided the measurement of turnover intention into four dimensions: changing attitude towards the organization, having turnover idea, having the behavior of seeking other jobs, and possibility of finding new jobs.

Huang (2004) studied the relevance and effect of job satisfaction, organizational commitment and turnover intention among managers in manufacturing companies in Xiamen and concluded that organizational commitment would play an important role in their turnover intention. Qian, Wu & Yan (2016) conducted research on staff of medical institutions and found that organizational commitment would have a certain effect on their turnover intention. Li & Liu (2017) believed when employees increase their loyalty to the enterprise, the dissatisfaction with the enterprise, as well as turnover intention would be greatly reduced.

In this chapter, the researcher sorted out and summarized relevant Chinese and foreign research results about organizational commitment and turnover intention among primary school teachers and explained the current situation of studies. According to the research findings, it's clear that in order to achieve the ultimate goal of increasing teachers' organizational commitment and reducing their turnover intention, both schools and teachers should make more efforts. Presently, there are abundant and mature research achievements on strategies to improve the organizational commitment of primary school teachers and reduce their turnover intention, and most Chinese and overseas scholars could analyze and discuss multiple these issues from multiple perspectives and levels based on actual practice. The researcher hopes to give more meaningful strategies by studying these two variables.

Research Methodology

The questionnaire adopted the convenient sampling method, taking the primary school teachers of Jingwu Education Group as the object. Among the 750 teachers and administrative staff, according to the sample size measurement formula of Ke & Mo (1970), 240 teachers and administrative staff were

selected and 240 questionnaires were distributed. In this study, the convenient sampling method was used to select samples from all staff. The questionnaire was compiled into an electronic form, and was pushed by school friends in the form of WeChat link through the WeChat group, urging the completion of the questionnaire. The recovery rate of the questionnaire was over 90%, with 218 questionnaires recovered. The questionnaire was divided into three categories: First was "the basic personal situation", the second was the "organizational commitment", and the third was the "turnover intention". The Organizational Commitment Questionnaire was divided into three levels according to the validity and introduction power of the survey results: affective commitment, normative commitment and continuance commitment. Each test item had six questions. Based on the domestic and foreign references to the turnover intention questionnaire, this study referred lessons from Fan (1998) for three dimensions. Based on the "Organizational Commitment" questionnaire and "Turnover Intention" questionnaire, according to the actual situation of primary school teachers, the design of the two parts of questionnaire was revised and perfected.

Conclusions

According to the questionnaire, there were 143 sex teachers, accounting for 79.89% of the respondents; The number of male teachers was 36, accounting for 20.11% of the respondents, and teachers aged 20~25 accounted for 42.46% of the surveyed, accounting for 76 people; 56 teachers aged 25-30, accounting for 31.28% of the respondents; There were 47 teachers over the age of 30, accounting for 26.26% of the respondents. Among the survey respondents, 110 were single teachers, about 61.45%; Sixty-nine teachers were married, or 38.55 per cent. In terms of educational level, there were 36 teachers at the specialist level, accounting for 20.11% of the interviewed teachers; Of the questionnaires, 105 had university diplomas, of which 38 were primary school teachers with master's degrees, accounting for 21.23 per cent of those asked. From the perspective of the school age structure of primary school teachers, a total of 70 teachers have less than one year of school age, accounting for 39.11% of the respondents; Between 5 and 10 years, there were 19 primary school teachers, or about 10.61%; There were 33 primary school teachers over 10 years old, and 18.44% of the respondents were surveyed. From the monthly income of primary school teachers, the monthly income of 42 teachers is less than 3,000 yuan, which is 23.46%; Among them, 97 primary school teachers have a monthly income of between 3,000-5,000 yuan, which is about 54.19%; Among them, 40 primary school teachers earned more than 5,000 yuan per month, which was 22.35%.

The scores of primary school teachers' organizational commitment of Jinan Jingwu Group was all 3.27, From the perspective of organizational commitment in each dimension, the highest score was affective commitment, with average score of 3.45, all of which were the highest grade. The normative commitment score was the lowest, with an average score of 3.14, which was at the lowest level.

Table 1: Individual Basic Information of Primary School Teacher Samples

Population variable	Classification of variables	Number of samples	Percentage (%)
Gender	Male	36	20.112
	Female	143	79.888
Age	Below 25	76	42.458
	26-35	56	31.285
	Over 36	47	26.257
Marital status	Married	110	61.453
	Unmarried	69	38.547
Educational background	Junior college	36	20.112
	Bachelor's degree	105	58.659
	Master's degree or above	38	21.229
Teaching age	Less than 1 year	70	39.106
	1-5 years	57	31.844
	5-10 years	19	10.615
	10 years or more	33	18.436
Population variable	Classification of variables	Number of samples	Percentage (%)
Professional title	Unrated	94	52.514
	Junior title	47	26.257
	Intermediate title	26	14.525
	Senior title	12	6.704
Staffing or not	Staffing	153	85.475
	Not staffing	26	14.525
Monthly salary	Less than 3,000 yuan	42	23.464
	3,000-5,000 yuan	91	50.838
	More than 5,000 yuan	46	25.698
Total		179	100.0

The average score of turnover intention of primary school teachers of Jinan Jingwu Education Group was above 2.5, which was at medium level, indicating that the turnover intention of primary school teachers of Jinan Jingwu Education Group was relatively flat. According to the turnover intention the school of each dimension, the score of leaving the school dimension was the highest, with average score of 3.162, which was the highest; The score of leaving the education industry dimension was the lowest, with average score of 2.676, which was the lowest in each dimension.

There were no significant differences in affective commitment and leaving the education industry in different gender samples. In addition, gender samples showed significant differences in five items: normative commitment, continuance commitment, organizational commitment, leaving the school, and leaving the education industry.

There was no significant difference between age samples for affective commitment, normative commitment and leaving the education industry. In addition, the age samples showed significant differences in four items: continuance commitment, organizational commitment, leaving the school and leaving the education industry.

There was no significant difference between different school age samples in terms of affective

commitment, normative commitment, continuance commitment, organizational commitment, leaving the school, leaving the education industry and turnover intention.

There was no significant difference between different academic standards in terms of affective commitment, normative commitment, continuance commitment, organizational commitment, leaving the school, leaving the education industry and Turnover Intention.

There was no significant difference in the five items of affective commitment, normative commitment, leaving the school, leaving the education industry and turnover intention in the sample of different marital status. In addition, there were significant differences between the two items in the sample of marital status for continuance commitment and organizational commitment.

Samples of different professional titles showed no significant difference in affective commitment, normative commitment, continuance commitment, organizational commitment, leaving the school, leaving the education industry, all of which showed no significant difference.

There were no significant differences in the five items of affective commitment, normative commitment, continuance commitment, organizational commitment and leaving the school, when it came to whether the teacher is full-time certified by the official education system on regular payroll or not. However, it showed a significant difference in the two items of leaving the education industry and turnover intention.

There was no significant difference between the sample of monthly wages and the affective commitment. In addition, the monthly wages sample showed significant difference in six items in terms of normative commitment, continuance commitment, organizational commitment, leaving school and leaving education industry.

There was significant relationship between leaving school and all four other items of affective commitment, normative commitment, continuance commitment and organizational commitment. Leaving education industry, and all four other items of affective commitment, normative commitment, continuance commitment and organizational commitment showed significant importance. Turnover intention and all four other items of affective commitment, normative commitment, continuance commitment and organizational commitment showed significant correlations.

It could be seen that affective commitment, normative commitment and continuance commitment were regarded as independent variables, while the turnover intention was taken as dependent variable for linear regression analysis. It could be concluded that: the model R-square value of 0.517 indicated that the model could account for 51.7% of the change in turnover intention. In the F test of the model, it was found that the model passed the F test ($F=62.457$, $P=0.000<0.05$), all the VIF values were less than 5, which indicated that there was no co-linearity problem. Because the D-W value was close to the number 2, it showed that there was no self-correlation between the models, and there was no correlation between the sample data, and the effect of the model was acceptable.

The conclusions were made based on the above data as follows:

1) It belonged to the middle-to-middle level from the whole level; the score of affective commitment dimension was the highest among organizational commitment, and the lowest one was normative commitment dimension. The dimension of leaving school had the highest score in the turnover intention and the lowest in the dimension of leaving education industry had the lowest score.

2) There were significant differences in the gender, age, marital status and monthly wages of primary school teachers of Jinan Jingwu Education Group. There was little difference in teaching age, educational background, professional title, and internal and external education. There were significant differences in the turnover intention among the primary school teachers' gender, age, whether certified by the official education system on regular payroll and monthly wages of primary school teachers of Jinan Jingwu Education Group. There was no significant difference in teaching age, educational background, marital status, and professional title.

3) The regression effect of organizational commitment on turnover intention among primary school teachers in Jinan Jingwu Education Group had a significant level, and organizational commitment can negatively predict the turnover intention.

Recommendations

According to the analysis of questionnaire survey results, it can be found. The turnover tendency of teachers in Jinan Jingwu Education Group will be influenced by organizational commitment to some extent. The author will put forward reasonable educational opinions. The emphasis is on improving the organizational commitment of teachers to effectively reduce the turnover tendency of teachers.

- 1) Improving Teacher's Affective Commitment
- 2) Improving Teacher's Normative Commitment
- 3) Improving Teachers' Continuance Commitment

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THE RELATIONSHIP BETWEEN SELF-EFFICACY AND PROFESSIONAL IDENTITY OF POLICE ACADEMY STUDENTS IN P COLLEGES IN SHANDONG PROVINCE, CHINA

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Abstract: This study used a convenient sampling method to conduct a questionnaire survey. Using the police officer academy students in P colleges as research subjects, a total of 164 valid questionnaires were collected, and descriptive statistical analysis of self-efficacy and professional identity and their differences in demographic variables, related analysis and regression analysis were carried out to verify the relationship between the police officer academy students' self-efficacy and professional identity. The findings showed that: The overall level of self-efficacy among police officer academy students was good, and the overall level of professional identity was high. There were significant gender differences in police officer academy students' self-efficacy under different background variables, and there were no significant differences in the self-efficacy variables of college students in their regions or parents' education levels. There were no significant differences in the professional identity of police officer academy students in different context variables in terms of gender, region, parents' level of education, and professional identity variables. There was a significant correlation between police officer academy students' self-efficacy and professional identity. Police academy students' self-efficacy can positively predict professional recognition.

Keywords: Police Academy Students, Self-Efficacy, Professional Identity

Introduction

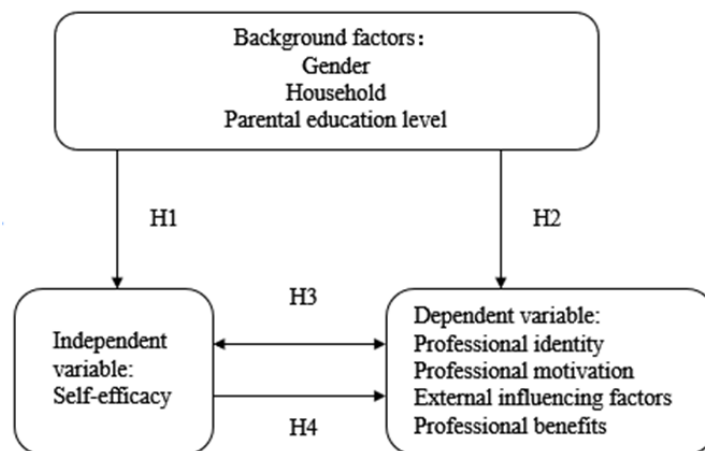
The police officer academy was heavily responsible for cultivating outstanding police professionals for the Party and the country. It must always take General Secretary Xi Jinping's ideological guidance as its foundation. In the critical historical period of China's comprehensive establishment as a modern socialist country, at the critical moment of advancing the high-quality development of the education industry, the police officer academy should not wait for my sense of urgency, establish new ideas, take on new responsibilities, and achieve new actions. Police academy college students were the future main force of the military academy and social service professionals.

The level of self-efficacy of police officer academy college students and their recognition of professional positions in the police will be related to their usual studies and training conditions, their future professional development, and the future combat effectiveness of the military academy forces. The research results of this study were intended to explore the relationship between self-efficacy and the professional identity of police students in a university in Shandong Province, to cultivate better the professional identity of police students in the police school, to improve the students' sense of efficacy, and provide qualified law enforcement talents for the law enforcement team to serve the society. Therefore, from the two aspects of self-efficacy and professional identity, this article used students from a police officer academy in Shandong Province as research subjects to understand the current situation and relationship between police officer academy students' self-efficacy during the time in school and professional identity of police professionals, and provided a scientific basis for better training of police officer academy students.

Research Objectives

- (1) To identify the current level of self-efficacy among police officer academy students.
- (2) To identify the current level of professional identity among police officer academy students.
- (3) To determine students' self-efficacy differences with different background variables (gender, household, parental education level).
- (4) To determine the differences in professional identity among students with different background variables (gender, household, parental education level).
- (5) To explore the correlation between police officer academy students' self-efficacy and professional identity.
- (6) To explore the impact of police officer academy students' self-efficacy on professional identity.

Conceptual Framework



Background factors: gender, household, parental education level, etc.

Independent variable: Self-efficacy, a single-dimensional variable.

Dependent variable: Professional identity, including the three dimensions of professional motivation, external influencing factors, professional benefits.

Research Hypotheses

Based on the above research questions, research objectives and research framework, this study proposes the following research hypotheses as the basis for statistical testing:

H1: There were significant differences in the self-efficacy of police officer academy students with different background variables.

H1.1: There were significant differences in the self-efficacy of police officer academy students in terms of gender.

H1.2: There were significant differences in the self-efficacy of police officer academy students in terms of households.

H1.3: There were significant differences in the self-efficacy of police officer academy students in terms of parental education level.

H2: There were significant differences in the professional identity of police officer academy students with different background variables.

H2.1: There were significant differences in the professional identity of police officer academy students in terms of gender.

H2.2: There were significant differences in the professional identity of police officer academy students in terms of households.

H2.3: There were significant differences in the professional identity of police officer academy students in terms of parental education level.

H3: Police academy students' self-efficacy was positively correlated with their professional identity.

H4: Police academy students' self-efficacy positively predicts professional identity.

Literatures Review

Related Research on Self-Efficacy

The concept of self-efficacy was pointed out in the psychologist Bandura's (1977) article "Self-Effectiveness: A Comprehensive Study on Behaviour Change". And then, he pointed out that self-efficacy can directly influence the way of thinking, behavior, emotional stimulation and explained it in depth, gradually forming the foundation of the self-efficacy theory. Chen & Liu (2011) believed that self-efficacy referred to a person's subjective judgment on whether they can successfully achieve a particular achievement. Lin (2014) proposed the critical points for cultivating college student's ability to learn independently from the self-efficacy perspective, and examined the influence and regulation of

their factors on their independent learning. Scholars conduct relevant research on students from various aspects. Pan (2005) argued that students' self-efficacy significantly impacts learning outcomes. Research results from Lin & Lian (2011) showed that self-efficacy was a predictor of learners' successful use of learning strategies in the process, was directly linked to learning outcomes, and has a solid ability to anticipate learning outcomes. Yusuf (2011) argued that teachers' self-efficacy influences their independent learning activities.

Related Research on Professional Identity

American sociologist scholar Miller (1963) pointed out that professional identity was an extraordinary act that individuals continuously carry out to continue earning their living income, generating certain benefits. These processes determine the social identity of the practitioner. Zhang (2017) suggested that professional identity referred to an individual's attitude towards their work and behavioral tendencies based on this attitude. Professional identity was related to the development of an individual's profession. The research in this study was mainly biased toward studying the degree to which individuals agree with the professions they want to pursue in the future. Xu et al. (2022) researchers believed that the cultivation of college students' professional identity was aimed at exploring the development context of Chinese college students' sense of professional identity. Among the results of police research, Wang & Wei (2016) studied that the professional identity of the People's Police was positively correlated with a positive attitude, positive psychological emotion, and inner acceptance of the professional values of the position for which they were responsible.

Research on the Relationship between Students' Self-Efficacy and Professional Identity

The study by Wang & Wang (2016) concluded that professional recognition and self-efficacy impact nursing students' academic performance. Tang (2019) had also proposed the concept of professional identity. The self-efficacy of newly entering higher vocational students plays a vital role in promoting their adaptation to the work environment. Research results also indicate that self-efficacy has a significant positive effect on the professional ability of college students, and that social perception and a sense of professional identity play a part in mediating this. An analysis by Zhang et al. (2021) showed that public security college graduates' general self-efficacy and professional identity as police officers all met average standards. There was a positive correlation between the two. According to data retrieval, research on college students' self-efficacy and professional identity was more common among college students majoring in general majors, while research on police officer academy college students was relatively rare.

Research Methodology

This study used a convenient sampling method and surveyed students in the Police Academy. The school has 320 students majoring in military and public security. According to the Morgan Table,

the number of people surveyed was 175. The number met the sampling criteria of the Morgan Watch. The test was divided into two stages: prediction and formal testing. Eighty questionnaires were returned for prediction, and 73 were valid questionnaires. In the formal testing stage, 198 questionnaires were recovered, and 164 valid questionnaires remained after screening invalid questionnaires, with a valid recovery rate of 93.71%.

The results of this study used the self-efficacy scale developed by Liu et al. (2001) and were based on results compiled by Schwarzer. There was a total of 10 questions, and the overall Cronbach's of the original questionnaire α . The coefficient was 0.894, and in exploratory factor analysis, the KMO value was 0.802. The Bartlett sphericity test results were significant, indicating that the questionnaire data had high reliability and validity.

The professional identity scale in this study was derived from the college students' professional identity scale compiled by Zhang et al. (2017) and finally formed the Police Academy Students' Professional Identity Questionnaire. There was a total of 16 questions, and the overall Cronbach's of the original questionnaire. The coefficient was 0.866, and the correlation coefficient between each dimension was 0.52-0.81, showing a moderate correlation, indicating a certain degree of independence between dimensions, and each dimension reflects the content to be tested in the questionnaire well.

In exploratory factor analysis, the KMO value was 0.843, and the Bartlett sphericity test results were significant. The data was suitable for factor analysis, and the cumulative contribution rate of the three extracted factors was 60.584%, indicating that the questionnaire data had high reliability and validity. Based on the recovered research information, it was processed through the SPSS 20.0 statistical application software:

(1) Descriptive statistics: Descriptive data were used to classify various variables average and understand the current between police officer academy students' self-efficacy and professional identity.

(2) Reliability analysis: Cronbach's α was the most common internal consistency reliability index. The greater the scale's reliability, the more consistent the stability of the scale and the more reliable it is.

(3) Independent sample t-test: An independent sample t was used to test whether there were significant differences in self-efficacy and professional identity among college students under variables of different genders and household locations.

(4) One-way ANOVA: The one-factor variance was used to analyze whether there were significant differences in the self-efficacy and professional identity of college students in different grades and background variables of parental education level.

(5) Pearson-related analysis: The relationship analysis with Pearson studies the overall self-efficacy of college students and the correlation between each dimension and overall professional identity to understand whether there was a significant correlation between the two and provide

preparation for studying its impact effects.

(6) Regression analysis: The purpose of regression analysis was to discover the extent of influence between dependent variables and independent variables, analyze the predictive power of various dimensions of college students' professional identity on self-efficacy.

Findings and Conclusions

As seen from the analysis results in Table 1, the overall average value of self-efficacy M was 3.77, which was above average, indicating that police officer academy students have an excellent overall level of self-efficacy.

Table 1: Descriptive Statistical Overall of Self-Efficacy of Police Academy Students (N=164)

Dimension	Min	Max	M	SD
Self-Efficacy	2.20	5.00	3.77	0.58

As could be seen from the analysis results in Table 2, the overall professional average value M was 4.09, above the middle level. The average values for each dimension were 4.15, 4.18, 3.94, all above the medium level. Among them, the average value of the professional benefit and external influencing factors was higher, and the average value of the professional motivation dimension was the lowest. It showed that the overall level of professional identity of police officer academy students was high and good.

Table 2: Descriptive Statistical Overall of Professional Identity of Police Academy Students (N=164)

Dimension	Min	Max	M	SD
Professional Motivation	1.83	5.00	4.15	0.76
External Influencing Factors	2.00	5.00	4.18	0.74
Professional Benefits	1.83	5.00	3.94	0.76
Professional Identity	2.22	5.00	4.09	0.68

Table 3: Demographic Background Statistics Table (N=164)

Background Variables	Grouping	Frequency	Percentage (%)
Gender	Male (1)	127	77.4
	Female (2)	37	22.6
Household	Rural (1)	71	43.3
	Urban (2)	93	56.7
Parental Education Level	Elementary School and below (1)	11	6.7
	Middle School (2)	44	26.8
	High School (3)	39	23.8
	College and above (4)	70	42.7

This study involved 198 questionnaires were collected from the police officer academy student

group. After deducting the unanswered questionnaire, 164 valid questionnaires were collected. The three background variables of gender, household, and parents' education were the demographic variables of this questionnaire survey. As seen from the statistical results of the basic information of the subjects in Table 3.

The results showed that gender significantly impacted self-efficacy. The self-efficacy of male college students was significantly higher than that of female college students. And there was no significant difference between male and female college students in the total professional identity variables.

Table 4: Comparison of T-Test Differences with Gender as Background Variable (N=164)

Dimensions	Male (N=127)		Female (N=37)		T	Sig
	M	SD	M	SD		
Self-Efficacy	38.520	5.293	34.919	6.495	3.453	0.001
Professional Motivation	25.102	4.418	24.216	4.934	1.045	0.297
External Influencing Factors	16.984	2.851	15.892	3.195	1.995	0.048
Professional Benefits	24.071	4.284	22.108	5.280	2.322	0.021
Professional Identity	66.157	10.209	62.216	12.674	1.735	0.089

The results found that, first, for self-efficacy, the variance alignment test results showed $p > 0.05$, indicating uniformity of variance. As shown in Table 5, parental education level did not significantly impact self-efficacy, external influencing factors, sense of professional motivation, or changes in professional identity ($p > 0.05$). There were no significant differences in the variables of effectiveness, sense of professional benefit, external influencing factors and sense of professional motivation, and professional identity.

Table 5: ANOVA Differences with Parents' Education Level as Background Variable (N=164)

Dimensions	①Elementary School and below (N=11)		②Middle School (N=44)		③High School (N=39)		④College Degree and above (N=70)		F	P
	M	SD	M	SD	M	SD	M	SD		
Self-Efficacy	36.73	7.824	36.98	5.885	38.18	5.848	38.06	5.340	0.509	0.676
Professional Motivation	23.91	5.665	24.52	4.567	26.44	3.754	24.44	4.633	2.039	0.111
External Influencing Factors	15.45	3.205	16.93	2.714	17.46	2.426	16.41	3.264	1.839	0.142
Professional Benefits	23.91	6.057	23.95	4.377	24.59	4.253	22.84	4.605	1.353	0.259
Professional Identity	63.27	12.885	65.41	10.968	68.49	4.642	63.70	11.167	1.767	0.156

As seen from the correlation analysis results in Table 6, the results showed a significant positive correlation between self-efficacy and professional identity and its subdimension sense of professional benefit, external influencing factors, and professional motivation. $p < 0.001$.

Table 6: Matrix Relating to Self-Efficacy and Professional Identity of Students (N=164)

	Self-Efficacy	Professional Motivation	External Influencing Factors	Professional Benefits	Professional Identity
Self-Efficacy	—				
Professional Motivation	.380***	—			
External Influencing Factors	.321***	.785***	—		
Professional Benefits	.438***	.672***	.714***	—	
Professional Identity	.430***	.912***	.899***	.894***	—

Note: *** $p < 0.001$

From the regression analysis results in Table 7, it could be seen that the regression coefficient of self-efficacy and professional identity was positive and significant ($\beta=0.422$, $p<0.001$), so it could be determined that self-efficacy had a significant favorable influence on professional identity. Therefore, the positive predictive relationship between self-efficacy and professional identity was verified.

Table 7: Stepwise Regression Analysis of Students' Self-Efficacy on Professional Identity

Model	R ²	Adj R ²	R ² Changes	F value Change	Significant F-Value Change
A	0.029	0.011	0.029	1.594	0.193
B	0.193	0.173	0.164	32.317	0.000
Model	Explanatory Variables	Normalized Coefficient β	T	Sig	VIF
1	Gender	-0.152	-1.925	0.056	1.030
	Household	-0.063	-0.642	0.521	1.584
	Parental Education Level	-0.021	-0.217	0.829	1.604
2	Gender	-0.049	-0.661	0.509	1.095
	Household	-0.015	-0.168	0.867	1.598
Model	Explanatory Variables	Normalized Coefficient β	T	Sig	VIF
	Parental Education Level	-0.074	-0.812	0.418	1.621
	Self-Efficacy	0.422	5.685	0.000	1.086

Response variable: Professional Identity; a. Explanatory variables: (constant) gender, household, parental education level
 b. Explanatory variables: (constant) gender, household, parental education level, self-efficacy

Conclusions

This study used a police officer academy student in Shandong Province as the subject of a questionnaire survey. The main findings were as follows:

(1) The overall level of self-efficacy among police officer academy students was good. However, there was still considerable room for improvement. A high self-efficacy motivated college student, enhanced their studies, cultivated a good personality, and enhanced their mental health.

(2) The overall level of professional identity of police officer academy students was high, and police officer academy students have a good level of professional identity. Police academy students all love the position of public security from the bottom of their hearts.

(3) Differential analysis of self-efficacy among college graduates with different background variables (gender, household, parental education level). From the conclusion of the questionnaire, the independent sample t-test was carried out with gender as the independent variable and self-efficacy as the dependent variable, and the results showed that the self-efficacy of different gender students was significantly different. The self-efficacy of males was significantly higher than that of females. To household for the independent variable, self-efficacy as the dependent variable, the results showed that the effect of household households on the self-efficacy variable was not significant, indicating that there was no apparent difference between rural undergraduate students and urban and rural undergraduate students in terms of variation in their self-efficacy. With parental education level as the independent variable and self-efficacy as the dependent variable, the results showed that the effect of parents' cultural level on self-efficacy was not pronounced. There was no noticeable difference in self-efficacy among students with different parental education levels.

(4) A study on differences in professional identity among college graduates with different background variables. Gender was used as the independent variable, and a study on the professional identity perception variable concluded that the effect of gender on the professional identity variable was not significant. The household was used as the independent variable, and professional identity as the dependent variable, and the results showed no significant difference in the professional identity variable between household and professional identity. Using parents' education level as the independent variable and professional identity as the dependent variable, the results of the analysis showed that the influence of parents' education level on professional identity was not significant, indicating that there was no noticeable difference in the variables of professional identity of college students whose parents had different levels of education.

(5) The positive correlation between self-efficacy and professional identity among police officer academy students showed a clear positive correlation between self-efficacy and professional identity, the professional benefits in various dimensions, and external influencing factors and professional motivation.

(6) Self-efficacy can positively predict professional recognition of police officer academy students.

Recommendations

Firstly, cultivating the professional identity of police academy students. Secondly, cultivate the professional sentiments of police academy students. Thirdly, to increase the professional behavior of police academy students. The police officer academy cadets' deep understanding of their duties was mainly reflected in their actions. Cultivate police officer academy students' sense of professional identity as police professionals during their time in school, thereby enhancing their students' sense of effectiveness, sending qualified law enforcement personnel to the law enforcement team, and serving

society to bring out their value.

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THE RELATIONSHIP BETWEEN MOBILE ENGLISH LEARNING MOTIVATION AND LEARNING ACHIEVEMENT AMONG UNDERGRADUATES AT J UNIVERSITY, ANHUI PROVINCE, CHINA

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Abstract: This study aimed to investigate the relationship between mobile English learning motivation and English learning achievement among undergraduate students at Anhui J University, as well as the differences between mobile English learning motivation and English learning achievement under different demographic variables. The researchers employed convenience sampling and snowball sampling techniques to distribute questionnaires to 150 junior undergraduate students at Anhui J University. The results indicated that the level of mobile English learning motivation among undergraduates at Anhui J University was moderate. The English achievement of female participants was found to be significantly higher compared to that of male participants. Also, there was a significant difference between mobile English learning motivation and English learning achievement under different monthly family incomes. Finally, there was a positive and significant relationship between mobile English learning motivation and English learning achievement.

Keywords: Mobile Learning, English Learning, Learning Motivation, Learning Achievement

Introduction

English is widely acknowledged as a global language and is considered an essential skill for facilitating effective cross-cultural communication (Li et al., 2020). In China, English education has also garnered considerable attention. Since Chinese economic reform in 1984, Chinese students are required to study English throughout their academic careers and can only pursue bachelor's and master's degrees if they pass college entrance exams and graduate selection exams in which English is a major subject (Sun et al., 2021).

The traditional educational approach in China has become inadequate in meeting the demands of modern talent development due to the rapid developments in information technology. Consequently, Chinese educators and learners have started embracing mobile learning as an alternative (Cheng, H.,

2018). Mobile learning, also known as m-learning, refers to the utilization of mobile terminal devices by learners to engage in educational activities anytime and anywhere (Shaya, 2023). According to Chao (2019), learners have the ability to utilize smart mobile devices, such as smartphones and tablets, to gain access to a wide range of educational resources and services.

Mobile-Assisted Language Learning (MALL) is a contemporary language learning methodology that facilitates and enhances the language acquisition process by using the potential of mobile technology (Xie & Niu, 2022). According to Katemba (2019), the integration of mobile learning and language learning has sparked a novel educational revolution, resulting in notable enhancements in the efficacy of English language acquisition among university students. Mobile learning may boost learners' motivation directly or indirectly through its persistence, portability, mobility, and collaboration features, thereby enhancing academic achievement (Bamidele, 2021). In addition, learners' motivation is a crucial factor that influences their learning achievement when they use mobile-assisted language learning to study a foreign language (Dong et al., 2022).

This study aimed to examine the relationship between undergraduate students' motivation and academic performance in mobile English learning at a university in Anhui Province and to determine whether there are statistically significant differences between motivation and English learning performance in mobile learning under different demographic background variables. Therefore, the findings of this study could assist Chinese educators in better comprehending and enhancing the motivation and performance status of undergraduate students in mobile English learning, which may have a positive impact on their English learning enhancement, thereby improving the overall quality of undergraduate students and positively influencing their future career development.

Research Objectives

The following objectives are formulated for this study:

1. To explore the current situation of mobile English learning motivation and English learning achievement of undergraduate students at Anhui J University.
2. Determine if there are differences in the motivation and academic performance of undergraduate students in mobile English at Anhui J University with respect to gender, domicile, and family income.
3. To determine the relationship between undergraduate students' mobile English learning motivation and learning achievement at Anhui J University.

Literature Review

E-Learning and Mobile Learning

The inception of e-learning can be traced back to the 1990s, wherein it emerged as a pedagogical approach that leverages electronic technology and online platforms to facilitate teaching

and learning processes. The primary objective of e-learning is to incorporate technological advancements into educational practices (Bai et al., 2020). The utilization of e-learning has emerged as an important component in the contemporary educational setting, garnering considerable attention from educators, learners, and researchers (Maatuk et al., 2021).

Mobile learning, or m-learning, which evolved from e-learning, is a way of learning that benefits from the support and improvements brought by mobile devices and various communication technologies (Ozuorcun & Tabak, 2012). According to Shaya (2023), individuals can conveniently and flexibly access educational materials, participate in educational tasks, and communicate and collaborate with educators or peers at their own discretion, utilizing mobile communication technologies and the Internet. Mobile learning technology eliminates learners' geographical limitations and creates a collaborative learning environment.

In recent years, an increasing number of scholars have embarked on research endeavors aimed at investigating the topic of mobile learning. Radu (2011) revealed that the widespread use of mobile learning enhanced student-student and student-teacher communication. The study conducted by Djoub (2016) provided evidence supporting the effectiveness of mobile learning in enhancing language learning performance among learners, while also promoting greater autonomy in the learning process. The personalized and interactive learning environment of mobile learning stimulates learners' motivation and initiative and helps to increase their motivation and engagement (Kuznekoff et al., 2015). Learners' reliance on mobile learning devices and the extensive variety of learning resources and tools available on the mobile APPs market have significantly enriched their learning experience and increased their learning motivation (Fattah, 2015).

Mobile Assisted Language Learning

Mobile-Assisted Language Learning (MALL) is a subfield of mobile learning that emerged from the broader domain of Computer-Assisted Language Learning (CALL). Mobile-assisted language learning (MALL) refers to the acquisition of a second or foreign language facilitated by the utilization of a portable electronic device equipped with wireless connectivity (Loewen et al., 2019). The increasing use of mobile technology has garnered significant interest from language learners, educators, and scholars in the field of mobile-assisted language learning. These people are examining the potential of mobile technology in facilitating the acquisition of foreign languages (Burston, 2015).

MALL holds significant research significance within the realm of language acquisition (Chinnery, 2006). Kang et al. (2015) conducted a study with 108 undergraduates and discovered that mobile-assisted language learning plays a significant role in enhancing learners' listening, reading, and writing abilities and has a positive supplementary influence on university English education. Li (2021) surveyed 591 Chinese undergraduates and conducted a multidimensional comparative analysis of the present state of mobile language acquisition among English majors and non-English majors. The study

disclosed that students have an increased desire to use mobile devices and wireless networks as tools for foreign language acquisition and that mobile-assisted language learning has revolutionized the way students acquire languages.

Learning Motivation

As a multifaceted and intricate concept, motivation has attracted considerable research interest across academic disciplines. Maslow (1943) defined motivation as the process that initiates, directs, and maintains goal-directed behavior and can lead individuals to take action to attain their goals or satiate their needs. However, there is no universal definition of motivation in the field of education, and educational researchers have thus far adopted Houssave's definition of motivation as the reasons and behaviors underlying the forces (Serio et al., 2013). Motivation refers to a student's psychological disposition to perceive the significance and value of a specific learning activity and to want to benefit from that learning behavior (Woolfolk, 2007).

In the late 1950s, social psychological research conducted by Gardner and Lambert paved the way for the study of motivation in second language acquisition. Gardner (1972) defined motivation for second language acquisition as the extent to which a learner is invested in language acquisition, because of the desire for this behavior and the satisfaction derived from it. Ellis (1994) described second language learning motivation as a psychological state in which the learner is driven by a strong need and desire to acquire a foreign language and exerts effort to satisfy these needs and desires. According to Guiltén & Kaya (2010), instrumental motivation refers to the learner's motivation to acquire a language in order to accomplish a pragmatic objective, such as obtaining a job or passing an exam. Integrative motivation, on the other hand, refers to the desire to acquire a language in order to communicate with people of the target language's own culture and is derived from an interest in other cultures.

Research on the Relationship between Students' Motivation and Achievement

Motivation is commonly regarded as a driving force that affects the level of students' commitment and effort in the learning process, thereby enhancing their learning achievement. According to the research conducted by Riswanto & Aryani (2018), there existed a strong correlation between the academic achievement of learners and the level of encouragement they receive. The study highlighted the significance of these encouragements as crucial factors in fostering motivation, ultimately leading to improved learning outcomes for learners. According to Rumapea (2019), motivation played a significant role in fostering learners' curiosity toward knowledge and their commitment to the learning process, which eventually impacted their academic achievements. Therefore, according to previous research, the correlation between motivation in English language learning and learning achievement is obvious. Motivation has the potential to spark learners' enthusiasm and internal drive. When students possess a positive motivation to acquire knowledge, they typically

exhibit heightened enthusiasm for learning, a greater inclination to engage in learning activities, and a sustained commitment to their educational goals.

Methodology

The population for this study comprised full-time junior undergraduates at Anhui J University, and the researchers collected a total of 150 valid questionnaires. The convenience sampling method, as well as the snowball sampling method, were the sampling methods used in this study.

The design of the questionnaire utilized in this study encompassed three different parts, which were employed to assess demographic information, motivation toward mobile learning, and English achievement. The study incorporated background variables such as gender, household size, and household income. The mobile English learning motivation scale utilized in this study was derived from the English learning motivation scale developed by Nguyen (2019). Upon completion of the questionnaire, the researcher proceeded to inquire directly with the participants regarding their scores in college English level 4, which served as a measure of their English achievement.

Since the study's mobile English learning motivation scale was an adaptation of the previous questionnaire, the researcher conducted a forty-person pilot test to determine the study's reliability prior to administering the questionnaire to the entire sample. The results of the pilot test indicated that Cronbach's alpha coefficient for the motivation questionnaire was 0.965. Specifically, the sub-dimension of integrated motivation had a coefficient of 0.943, while the sub-dimension of instrumental motivation had a coefficient of 0.914. These results provide evidence that the questionnaire used in the study demonstrated excellent reliability and internal consistency. Subsequently, the study employed KMO and Bartlett's test to evaluate the construct validity. The findings indicated that the motivation questionnaire exhibited a Kaiser-Meyer-Olkin (KMO) value exceeding 0.5 (KMO = 0.731) and a p-value below 0.05 ($p = 0.000$). Hence, the study's construct validity was established. After that, the researcher employed independent samples t-tests and one-way ANOVA to examine the disparities in mobile English learning motivation and learning achievement across various demographic variables. The researchers employed either Pearson's correlation coefficient to examine the relationship between the two major variables.

Results

Demographic Information Analysis

The research demonstrates the descriptive statistical analysis of the demographic information in this study. Regarding gender, there were 76 (50.67%) male participants and 74 (49.33%) female participants. That is, the number of males and females in this study was about the same. Regarding domicile, 81 (or 54%) of the participants in this study had urban domicile, while 69 (or 46%) had rural

domicile. Therefore, the number of urban domiciles is slightly higher than the number of rural domiciles in this study. Regarding monthly family income, 17 (or 11.33%) of the participant's monthly family income is less than RMB 5,000; 66 (or 44%) of monthly family income was between RMB 5,000 and RMB 9,999; 53 (or 35.33%) of monthly family income was between RMB 10,000 and RMB 19,999; while those with a monthly family income of more than RMB 20,000 were 14 participants (or 9.33%).

Descriptive Analysis Results of Scale Items

The descriptive statistical analysis of mobile learning motivation and its two subdimensions are provided. The motivation of undergraduates at Anhui J University to learn English via mobile devices is moderate (Mean=3.381, SD=0.595). In terms of the two sub-dimensions, where integrative motivation is at a moderate level (Mean=3.547, SD=0.636) and instrumental motivation is also at a moderate level (Mean=2.968, SD=0.524), and the mean score of integrative motivation is higher than instrumental motivation.

Hypotheses Test Results

H1: There is a significant difference in mobile English learning motivation among undergraduate students at J University in Anhui Province across genders (H1a), domiciles (H1b), and monthly family incomes (H1c).

It shows the independent samples t-test for mobile English learning motivation of Anhui J University undergraduates across different genders and domiciles. As can be seen from the table, there is no significant difference in the motivation for mobile English learning among undergraduates of Anhui J University by gender, with a significant value of 0.092 ($p > 0.05$). Similarly, there is no significant difference in the mobile English learning motivation of undergraduates of Anhui J University with different domiciles, with a significant value of 0.158 ($p > 0.05$). Therefore, H1a as well as H1b were rejected. The research presents the one-way ANOVA of mobile English learning motivation among Anhui J University undergraduates across different monthly family incomes. There is a significant difference in the mobile English learning motivation of undergraduate students at Anhui J University based on their monthly family income, as indicated by a significant value of 0.000 ($p > 0.05$) in the table. By using the Bonferroni Multiple Compare, monthly family income between 5000-9999RMB, monthly family income between 10000-19999RMB, and monthly family income over 20000RMB are significantly higher than monthly family income below 5000RMB. Other than that, there were no statistically significant differences between the other groupings. From this, it proved that H1 is true.

H2: There is a significant difference in English learning achievement among undergraduate students at J University in Anhui Province across genders (H2a), domiciles (H2b), and monthly family incomes (H2c).

It shows the independent samples t-test of undergraduates' English learning achievement across gender and domicile at Anhui J University. From the table, it reflects that there is a significant difference

in the English learning achievement of undergraduates of Anhui J University across gender, with a significant value of 0.002 ($P < 0.05$). However, there is no significant difference in the English learning achievement of undergraduates of Anhui J University from different domiciles, with a significant difference value of 0.629 ($P > 0.05$). Therefore, H2a was accepted while H2b was rejected. The results of a one-way ANOVA on the English achievement of Anhui J University undergraduates with different monthly family incomes are presented. It reflects that there is a significant difference in the English learning achievement of undergraduates at Anhui J University across different monthly family incomes and that the significant value of the difference is 0.000 ($P > 0.05$). Using Bonferroni multiple comparisons, the English learning achievement of undergraduates whose monthly family income is between 5000 and 9999 RMB, between 10000 and 19999 RMB, and over 20000 RMB is significantly higher than that of undergraduates whose monthly family income is less than 5000 RMB. The English achievement of university students whose monthly family income exceeds 20,000 yuan is significantly higher than that of college students whose monthly family income ranges between 5,000 and 9,999 yuan. There is no statistically significant difference between the other groupings. Thus, H2c was supported.

H3: There is a significant relationship between mobile English learning motivation and English learning achievement among undergraduate students at J University in Anhui Province.

There is a significant positive correlation between Anhui J University Undergraduates' Mobile English Learning Motivation and English Learning Achievement ($p < 0.05$), and the correlation coefficient between Mobile English Learning Motivation and English Learning Achievement is 0.475, indicating a moderate correlation between the two variables. Therefore, H3 was supported.

Discussion

First, in this study, the researchers discovered no significant gender or domicile differences in mobile English learning motivation among undergraduates at Anhui J University. In contrast, there was a significant difference in English learning motivation determined by monthly family income, with participants with monthly household incomes of less than 5000 RMB having significantly less mobile English learning motivation than the other three groups. There are very few studies on mobile English learning motivation right now, so the researcher used the study of English learning motivation for the discussion. Harthy (2017) conducted a study on English language learning motivation and found that there is no significant difference in the motivation of English language learners under different genders. Yan (2022) found that different family factors can have an impact on motivation to learn English, including family income.

Second, the researcher discovered that there were no significant differences in the English proficiency of Anhui J University undergraduates with different domiciles. However, there were

significant gender and monthly household income differences in English learning motivation. The learning achievement of female participants was significantly higher than that of male participants. The English achievement of participants whose families earned less than 5000 RMB per month was significantly lower than that of the other three groups. The English achievement of participants with monthly household incomes between 5,000 and 9,999 RMB was significantly lower than that of participants with monthly household incomes exceeding 20,000 RMB. Główka (2014) found that female learners were significantly higher in motivation and achievement in learning English than male learners. Yan (2022) also found that different family factors can have an impact on English learning achievement, including family income.

Lastly, the researcher found that there is a significant correlation between mobile English learning motivation and English learning achievement. Numerous studies have demonstrated the relationship between mobile English learning motivation and English learning achievement. Riswanto & Aryani (2018) found that the learning achievement of English language learners is closely related to motivation, particularly encouragement received during the learning process, which motivates students to work diligently to achieve their learning objectives. Rumapea (2019) showed that motivation influences learners' academic achievement by appealing to learners' curiosity and by making them more engaged in learning.

Conclusions

Based on the study finding, a few conclusions were drawn as follows: 1) There is no significant difference in the motivation of Anhui J University undergraduates for mobile English learning by gender and domicile, but there is a significant difference in monthly family income. Participants whose monthly family income was less than 5000RMB had significantly lower motivation for mobile English learning than the other three groups. 2) There is no significant difference between undergraduates of Anhui J University for English learning achievement across domicile, but there is a significant difference across gender and monthly family income. Females' English learning achievement is significantly higher than males. Participants whose monthly family income was less than 5000RMB had significantly lower mobile English learning motivation than the other three groups. Participants with monthly family incomes between 5000 and 9999RMB had significantly lower English learning achievement than participants with monthly family incomes higher than 20,000 RMB. 3) There is a positive and significant relationship between mobile English learning motivation and English learning achievement among undergraduate students of Anhui J University.

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FACTORS INFLUENCING THE INSTRUCTIONAL LEADERSHIP PRACTICES AT PUBLIC UNIVERSITIES IN TANZANIA

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Abstract: In the 21st century, instruction practices for developing student competencies in universities face myriad challenges. This study envisioned determining factors influencing the instructional leadership practices of universities in Tanzania. Through content analysis of information from published journal articles and reports, the study revealed some of the possible factors. The factors were expressed in 22 items, which the instructors in the sampled universities rated. Using survey data collected from 222 instructors from 5 public universities in Tanzania, the study applied Exploratory Factors Analysis (EFA) to group the items into factors. EFA extracted a total of 20 items. The items were grouped into four factors (with Eigen Value greater than 1); 61% of the variance explained, and all the extracted factor item loadings were greater than .050. The factors (as regrouped by EFA and renamed) include factor 1- competence in teaching and learning, factor 2 – leadership and professionalism, factor 3 – Country's economy, legal system and University-Industry linkages and factor 4 – political influence.

Keywords: Factors, Instructional Leadership, Public Universities, Tanzania

Introduction

Instructional leadership can be construed as leadership practice that supports effective teaching and learning by providing guidance and direction for instructional improvement. The main focus of the instructional leadership practice is student learning (Munna, 2022; Shaked, 2022). In the context of rapid social, economic and technological transformation, the role of higher education is assumed to be that of developing student competencies through effective instructional practices to prepare them for responding to and managing change and its inherent demands, challenges and tensions (Crebert, 2004). Higher education creates, preserves and communicates knowledge and exerts an impact on society's cultural, social and well-being (Panagiotakopoulos, 2012). However, the expected impact is to a lesser degree. This is evident as employers in the developed and developing world consider competency shortage the major constraint in growing, innovating, delivering goods and services on time and meeting

quality standards and environmental and social requirements (Aring, 2012). This has been a major concern of employers in the UK for the past 2 decades, and a similar discourse has been recorded in the Asia Pacific Region, particularly in the ASEAN (Winterton & Turner, 2019). Low levels of competencies among graduates are caused by two major factors believed to be converging: 1/ changes in technology and demography, new ways of organising work and changes in consumer tests and likes or shifts in commodity prices (Ananiadou & Claro, 2009) and 2/ weak instructional practices in the education systems (Freifeld, 2014; Organisation for Economic Co-operation and Development, 2013). According to Ed Gorgon (author of *Winning the Global Talent Showdown*), the employment skills crisis is an education issue, and there is a need to revamp the education system (Freifeld, 2014).

In this respect, some key questions come up. What are the challenges facing the instructional system of universities, particularly in visioning for competent, skillful graduates? Or what are the success factors for instructional leadership? Ogunode & Olaitan (2023) mention some of them, including poor funding, political influence, shortage of academic staff, poor staff development, ineffective research programs, and uncondusive teaching and learning environment. Some of these factors can be addressed from within the universities (e.g., ineffective research programs), while some are largely external (e.g., political influence); though strictly considered, all have forward and backward influence on each other. Studies addressing factors influencing instructional leadership practices for developing competencies in Tanzania are scarce and fragmented. Some policy documents and studies mention that students are not competent enough for the job market (Mgaiwa, 2021; Mohamedhai, 2014; President Office Planning Commission, 2014). However, the studies have not outlined the factors which can be considered by higher education to have an effective instructional leadership practice system for the development of student competencies. The study by Mgaiwa offers some suggestions for fostering Tanzanian graduates' employability from the side of university practices, which one can consider as areas of focus, including alignment of higher education with national development plans, regular curricular review and strengthening of quality assurance mechanisms.

In line with this background, this paper aims at exploring the factors affecting instructional leadership practices in higher education in Tanzania using secondary information from various published works and by obtaining the validation of the factors from the lecturers at public universities. It proceeds by showing the influence of the factors on instructional leadership practices. This study further recommends some practical ways to act on the factors to enable effective learning practices as a powerful solution to low competency among graduates in Tanzania.

Research Objectives

This paper aims at determining the factors influencing the instructional leadership practices at public universities in Tanzania. This objective will be accomplished by identifying the factors in the

literature through content analysis and using Explorative Factor Analysis to group them accordingly. Out of this study, any interested researcher can use the factors as constructs to, for example, estimate their influence on instructional leadership practices through Confirmatory Factor Analysis.

Literature Review

Instructional Leadership in Higher Education (HE)

Instructional leadership theory or model is attributed to Hallinger & Murphy (Ersozlu & Saklan, 2016). The model has attracted much attention since the 1980s (Hallinger, 2011), and has been found to include practices which have a positive impact on instructor's motivation and commitment (Blasé & Blase, 2000) and on student achievement (Leithwood, Patten, & Jantzi, 2010; Southworth, 2002; Hallinger & Heck, 1996a). Although there have been several instructional leadership models (Andrews & Soder, 1987; Leithwood, Begley, & Cousins, 1990; van de Grift, 1990), the current study focuses on the model by Hallinger and Murphy (1986), which has been very common in empirical research on leadership related to instruction (Hallinger, 2005). Although the model of Hallinger and Murphy has been mostly applied to lower levels of education (Hallinger, Allan Walker, 2017), some studies have used it specifically in higher education (Ersozlu & Saklan, 2016) or some studies have researched similar dimensions in higher education contexts (Akuegwu & Nwi-ue, 2017; Andy-Wali & Wali, 2018)

According to Hallinger and Murphy (1986), instructional leadership is a two-dimensional concept, namely the leadership functions and leadership process. As a leadership function, it involves framing and sharing school goals, supervising and evaluating instruction, curriculum coordination, development of high academic standards and expectations, promoting the professional development of instructors, monitoring student progress and designing incentives for instructors and learners. Similar functions are also outlined in Blasé & Blasé (2004), showing that these instructional leadership practices have a positive and strong relationship with instructor commitment, professional commitment, and innovativeness (also see Sheppard, 1996). As a leadership process, instructional leadership involves communication, decision-making, management of conflicts, group and change processes and environmental interaction.

Some other studies have found that the more effective instructional leadership in higher education focusses on the improvement of teaching and learning by researching and applying effective instructional (teaching and learning) approaches (Chenault, 2017; Cox & King, 2006; Lee, Walker, & Chui, 2012; Rigby, 2014) by creating a conducive environment for teaching and learning (Boyce & Bowers, 2017; Ersozlu & Saklan, 2016; O'Donnell & White, 2005) leading inclusive curriculum review (Hallinger, 2003; Prytula, Noonan & Hellsten, 2013) and monitoring student progress (Leithwood & Jantzi, 2008; Hallinger, Wang & Wang, 2015). Moreover, some studies emphasise building a culture of learning (Greenier & Whitehead, 2016; Hofmeyer, Sheingold, Klopper, Warland, 2015) and promoting

collegiality and autonomy of faculty members by building a sense of purpose and self-leadership (Bolden, et al., 2012).

To satisfactorily cover the instructional leadership process, this study extends itself to review effective instructional approaches. The rationale for this extension is that in this study, the instructors/lecturers are considered instructional leaders (Andy-Wali & Wali, 2018), along with heads of academic departments and faculty deans. In this respect, they lead instruction with classroom goals contributing to the university-wide vision. Effective classroom instructional approaches for higher education include a student-centred approach (Land, Hannafin, & Oliver, 2012; Sogunro, 2017) cooperative learning approach through group, peer, and team learning activities (Edwards & Bone, 2012; Strang, 2015) and problem-based learning in which students are provided with ill-structured problems scenarios (Tiruneh, Verburgh&Elen, 2014)and real-world rigorous tasks to engage in exploration (Lee, Blackwell, Drake & Moran, 2014). In addition, the instructors/lecturers use assessment methods which reflect and/or enhance the student learning purposes, learning activities and, above all, the learning outcomes. In this way, alignment between the intended learning outcomes and the learning activities is achieved (Ali, 2018; Paskevicius, 2017).

Possible Factors Influencing Instructional Leadership in HE

Many transformations have taken place in higher education in both developed and developing world, which were characterized by an increase in the number of enrolled students, number of graduates, the introduction of quality assurance procedures and the alignment of curricula and teaching processes to labor market requirements (Coraminas, Saurina, & Villar, 2010). These transformations challenge the university instructional systems, and there has been a need to make some changes by acting on the key success factors and identifying the external challenges to avoid.

In the literature, one of the key factors which influence higher education instructional practices include the abilities and qualifications of faculty members (Chen, Sok&Sok, 2007; Singh, 2011). The abilities and qualifications of the faculty members play in enabling proper instruction. For example, Mkude, Cooksey, & Levey (2003) saw the need to improve higher learning staff computer literacy to ensure the quality of teaching and learning in Tanzanian Universities.

Secondly, the success of instructional leadership in higher education can be influenced by curricular and pedagogical approaches. This factor implies the use of appropriate teaching and learning methods (Seifert & Sutton, 2009; Turner, Solis &Kincade, 2017; Moeti, Mgawi & Moalosi, 2016), frequent and collaborative curricular review (Nasrallah, 2014) and emphasis on integrating relevant content to the curricular (Moeti, Mgawi & Moalosi, 2016). Sufficient evidence from several studies shows that to bring about desired learning outcomes, and there must be alignment between the curriculum, the teaching and learning activities and the learning outcomes (Ali, 2018; Alfauzan &Tarchouna, 2017; Biggs, 2014; McMahan &Thakore, 2006)

Thirdly, instructional leadership effectiveness is possible, given the availability of teaching and learning resources (Eddessa, 2017; Nakelet, Prossy, Bernard, Peter, & Dorothy, 2017). Resources for learning include textbooks, computers, internet facilities, electronic information services, databases and the like (Chen, Sok & Sok, 2007), which instructors and students need to access conveniently. Moreover, students must have a safe and comfortable residence (Chen, Sok & Sok, 2007). Ngirwa, Euwema, Babyegeya, & Stouten (2014) pointed out that insufficient resources could be a challenge facing African higher education organisations, causing an adverse working environment.

Fourthly, the number and type of students received in higher education may cause some instructional challenges. For example, in Tanzania, students admitted to higher education are more than the capacity of the universities (Ngirwa, Euwema, Babyegeya, & Stouten, 2014) and have unsatisfactory mastery of the language of instruction. In various studies, students' characteristics in terms of number or class size (Singh, 2011), their ability to make sense of the teaching approaches (Bigelow, 2004), their commitment and level of preparedness for rigorous academic work (Gardiner, 2006) play as important factors in the success of instructional leadership practices.

Moreover, some studies show the academia-industry linkage as one of the ways of developing and enhancing instructional practices in higher education (Etshim, 2017; Ishengoma & Vaaland, 2016; Tsinidou, Georgiannis & Fitsilis, 2010). However, its implementation has portrayed two major challenges: First, there is a limited number of business personnel who are willing to participate by bringing real work issues to students in class, leave alone the real interaction between students and practitioners in the industry (Ishengoma & Vaaland, 2016). For example, In Tanzania, very few business practitioners can meaningfully engage with higher education teaching staff in issues of curricular design, teaching and assessment of learning (Ishengoma & Vaaland, 2016). The second challenge is the goals difference between higher education institutions and the industry (Kaijage, 2010). While academia feels the need to maintain its reputation as the source of critique to the community for economic and cultural changes, the business mainly focuses on what is profitable.

Other possible factors for successful instructional practices include leadership (in favour of participatory leadership) (Garwe, 2014; Wingrove, 2015; Zhu & Engels, 2014), the country's economic status manifested in the ability of the government to fund the university, and ability of students to pay fees (Nakelet, Prossy, Bernard, Peter, & Dorothy, 2017; Teferra & Altbach, 2004), country laws and policies (Bloom, Canning, & Chan, 2006), technological advancement (Ananiadou & Claro, 2009) and political influence (Teferra & Altbach, 2004).

Research Methodology

This study used the exploratory sequential mixed research design, one of the types of mixed research design. In this design, the researcher started by collecting qualitative data, analysed qualitative

data and used the findings to construct the survey questionnaire. The questionnaire was used to collect quantitative data, which further confirmed and explained the relationship found in the qualitative data (Creswell, 2012).

The qualitative method (content analysis)

For the qualitative part of the study, coding sheets were used to collect data from books, journal articles, dissertations, and online sources. The researcher included the data pool of the key phrases that responded to this study's demand, especially the themes that explain factors influencing instructional practices and leadership in higher education.

The whole process of qualitative data collection and analysis was carried out according to some of the stages suggested in Neuendorf (2017), which included identification of theory and rationale, conceptualization (defining the study variables), collecting extracts from sources and coding, analyzing and synthesizing the acquired extracts, and producing the findings. Eleven (11) experts in the field of teaching and learning were used to validate the findings.

The quantitative survey method

For the quantitative part of the study, data was collected through survey questionnaires distributed to lecturers selected by random sampling. The population of this study was composed of university instructors from five (5) public universities (out of the 11 public universities) in Tanzania Mainland. A sample from the population of the lecturers was drawn using the procedure proposed by Krejcie & Morgan (1970). In a population of 3,375 lecturers, the researcher estimated a sample size of 292 participants.

A questionnaire was composed of items which measured the likelihood of a factor influencing instructional leadership as rated on a five-point Likert scale. The questionnaire was sent to five (5) experts to check its relevance given the intended research objectives (Items Objective Congruence). The items which were not congruent with the objectives were deleted or revised. Further, the questionnaire was pilot tested with 30 participants. The data from the 30 participants was subjected to reliability analysis. All items in the questionnaire scored an alpha score of .920 or above. This indicates that all the items accurately measured the intended constructs Gliem & Gliem (2003).

The questionnaires were distributed to 305 lecturers. The total returned questionnaires were 222, 72.78% of the distributed questionnaires and about 76.02 of the estimated sample size. Method of data analysis exploratory factor analysis.

Findings

Results of Content Analysis

The data on factors influencing instructional leadership in higher education were extracted from 37 sources. A total of 54 extracts were taken to the coding sheets and were subjected to content analysis.

The content analysis findings revealed factors that can broadly be categorized into internal and external factors. Further, these broad categories were put into more specific themes. The analysis revealed a total of 10 themes. These themes, with the frequency of occurrences in the sources, are listed in Table 1 below.

Table 1: Typical Factors Affecting Instructional Leadership in Higher Education

	Theme	Frequency	Percentage %
	Internal Factors		
1.	Faculty member attributes	23	62.1
2.	Leadership and Administration	14	37.8
3.	Curricular and pedagogical approaches	14	37.8
4.	Student characteristics	12	32.4
5.	Teaching and learning resources	12	32.4
6.	University-industry linkages	5	13.5
	External factors		
7.	Country economic status	2	5.4
8.	Country legal and policy systems	2	5.4
9.	Political influence on university systems	1	2.7
10.	Technological advancement	1	2.7

As mentioned earlier, the themes listed in Table 1 reflect the broad categorization of internal and external factors. Themes 1-6 represent what a university system can act on. Thus, these are considered internal factors. However, themes 7-10 represent conditions external to university systems and are considered external factors in this study.

Descriptive Statistics on Factors

The survey participants rated the questionnaire items representing the factors influencing instructional leadership on the Likert scale to indicate the level of agreement. Table 2 (on the next page) below shows the mean score and related interpretation for each factor.

At this level of analysis, the participants accept that all ten factors are strong determinants of the success of instructional leadership at their universities. The factor with the highest mean score is TA ($m = 4.738$), and the lowest mean score is found against PI ($M = 3.909$).

Results of the Exploratory Factor Analysis

An Exploratory Factor Analysis was done using principal component analysis and varimax rotation. The lowest factor loading criteria was set at .50. The communality of the scale, which indicates the amount of variance for each dimension, was assessed to ensure an acceptable degree of explanation. The results indicated that the communalities were above .50, except for Q22.

Another pre-requisite test for Exploratory Factor Analysis (EFA) is the Kaiser-Meyer-Olkin (KMO), commonly used as a test of sampling adequacy. This is a statistic in which the proportion of variance given the variables included in the study is compared to the sample.

Table 2: Mean Scores for items on Factors Affecting Instructional Leadership

SN	Factor	Mean	SD
1	The faculty members' ability to organise course content for learning can make a positive contribution to student learning.	4.432	.618
2	Faculty member competencies (such as presentation clarity and setting of quality examinations) have a positive impact on student learning	4.603	.583
3	Faculty members' involvement in research and publication positively impacts teaching.	4.543	.655
4	The use of supportive participatory leadership can positively impact teaching and learning activities at the university.	4.612	.651
5	Leadership that is considerate of the needs of the lecturers is likely to motivate them towards academic goals.	4.590	.651
6	University admission criteria can have an impact on teaching at the university.	4.675	.640
7	The university's focus on quality control will ultimately enhance student performance.	4.621	.602
8	Frequent review of pedagogical approaches helps in aligning courses with market needs.	4.657	.623
9	The application of scientifically tested teaching methods contributes to quality learning at the university.	4.657	.546
10	Collaborative curricular review that is carried out by lecturers and University leadership has a positive impact on teaching	4.648	.596
11	Students' level of English language mastery has an important role in the process of teaching at the university.	4.689	.569
12	A class size that is manageable will positively influence the success in teaching and learning.	4.756	.589
13	Student readiness to the type of learning at higher education (e.g., group work) can impact on the learning process.	4.603	.689
14	A funding policy that focuses on the facilitation of teaching activities enables positive learning outcomes.	4.603	.709
15	The presence of adequate learning resources (e.g., libraries, classes, laboratories and Internet services) enhances student learning.	4.698	.541
16	The university's ability to secure projects for students in the industry can help students in the continuous development of their work skills.	4.662	.577
17	The university needs to invite industry professionals to share their hands-on experience with students.	4.693	.534
18	The economic level of the country (government's ability to fund, parents' ability to pay fees) is a factor in the effectiveness of the university.	4.662	.569
19	The country's legal (e.g., University Act) system has an impact on the academic goals of the university.	4.482	.710
20	The higher education policy has greatly influenced teaching and learning at the university.	4.486	.677
21	Political influence has an impact on the running of teaching activities at the university.	3.909	1.188
22	The university teaching system has to cope with advancements in teaching technology, particularly in ICTs.	4.738	.541
	Overall	4.591	.639

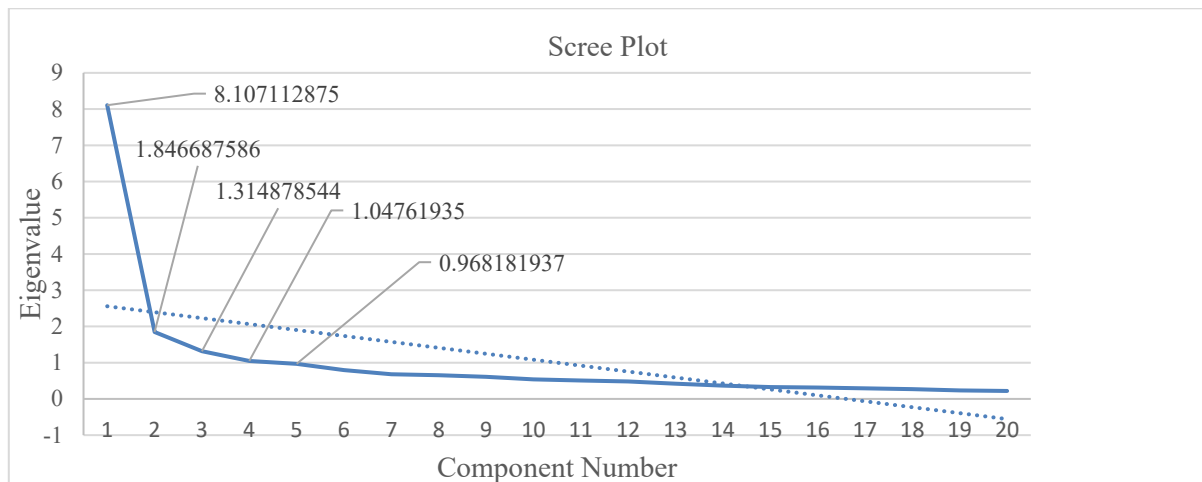
A higher value KMO statistic indicates the appropriateness of the EFA. The KMO statistic for the data of this study is .907. This statistic is interpreted as marvelous (Kaiser & Rice, 1974), indicating

that there is a high degree of sampling adequacy and, therefore, the EFA is possible. An additional test associated with KMO is the Bartlett's Test of Sphericity which tests the hypothesis that the variables of the study are uncorrelated ($r=0$). As per the table below, Bartlett's Test of Sphericity is significant at .00; therefore, the $r = 0$ hypothesis is rejected. Thus, the variables are correlated. Moreover, the factor solution derived from the analysis showed that the four factors accounted for or explained more than 60% of the variation in the data.

According to EFA, the four factors seem to load sufficiently, meeting the threshold of .50. Factor 1 includes Q6, 8, 9, 10, 11, 12, 13, 14 & 15; factor 2 includes Q1- 5; factor 3 includes Q 16-20 and factor f 4 has only 1 component, that is Q21. The factor loadings are presented.

Nonetheless, in the initial EFA, two items (i.e., Q7 and Q22) failed to load in any factor significantly. Hence these items have been excluded from the pattern matrix. Excluding these items was automatic, given the setting for suppression of any loading below 50. Thus, 20 out of the 22 items are in the pattern matrix table.

The analysis went on to look for the possible number of factors to be extracted from the total of 22 items (Q), by considering the Eigen Value. In EFA, factors with Eigen values greater than 1 are considered for further studies. In the figure below, four group factors have a value of Eigen Value greater than one, and therefore these are considered as factors.



Picture 1: The Eigen Value

It can be noted that the factors do not fully match the grouping product of the content analysis, so adjustments and renaming are needed. The following is the modified list of labels for the factors: factor 1 – *Competence in Teaching and Learning*, factor 2 – *Leadership and professionalism*, Factor 3 – *Country's economy, legal system and University-Industry linkages* and Factor 4 – *Political Influence*.

Discussion

The overall mean score for factors affecting the IL was 4.559, interpreted as "very strong". Most of the factors were above this mean and were interpreted as "very strong", except *political influence* (M = 3.909) and *country legal and policy systems* (M = 4.484), which were interpreted as "strong". This means that most of the factors identified by the content analysis strongly influenced the IL in Tanzania.

The factors interpreted as "very strong" correspond to those in Cheng, Sok & Sok (2007) and Tsinidou, Georgiannis, & Fitsilis (2010). The difference between the results in the literature and the result in the current study lies in the priority given to the factors. Where the study by Tsinidou, Georgiannis, & Fitsilis (2010) prioritized the FMA, LA and the CPA, the results of this part prioritized *technological advancement* (TA) (highest mean of 4.738), *student characteristics* (second highest mean of 4.638) and *university-industry linkages* (third highest mean of 4.677). However, in the content analysis, *technological advancement* as a factor was the least frequent.

As for the EFA, four factors were extracted: all of them with average loadings above .50. Out of the 22 items, only the Q7 and Q22 were not taken into any factor because either they did not load or loaded on their own. This means that 90.9% of the information from theory, as identified through content analysis, explains the instructional leadership in Universities in Tanzania. The four factors extracted were then labelled as *Competence in Teaching and Learning* (CTL), *Leadership and Professionalism* (LP), *Country's Economy, Legal System and University-industry linkages* (EL&UIL) and *Political influence* (PI). As noted, the two first factors fall into what the content analysis findings grouped as internal factors, while the other two factors fall into external factors.

Competence in teaching and learning has taken its basis in theory as the need for higher education to stick to rigorous admission criteria (Gaith, 2010), ensure alignment between the pedagogical approaches and the market needs (Moeti, Mgawi & Moalosi (2016), frequent collaborative curricular reviews (Etshim, 2017; Mgaiwa, 2021; Nasrallah, 2014; Singh, 2010), and use the scientifically proven methods of teaching and learning (Eddessa, 2017; Moeti, Mgawi & Moalosi, 2016). Other constructs under this factor include class size (Turner, Solis & Kincade, 2017), student readiness to the learning requirements of higher education, including mastery of language of instruction (English) (Gardiner, 2006; Prossy, Bernard, Peter, & Dorothy, 2017; Singh, 2011) and availability of teaching and learning resources (Bendermacer, Oude Egbrink Wolfhagen, & Dolmans, 2017; Flumerfelt & Banachowski, 2011; Ishengoma & Vaaland, 2016; Tsinidou, Georgiannis & Fitsilis, 2010). With reference to literature, these are the aspects to work on for success in the teaching and learning process.

Another factor was leadership and professionalism, which stood as a key in successful instructional leadership in higher education. Specific constructs for this factor which are supported by theory, include the faculty member's ability and competencies, faculty members involvement in

research and publication, collaborative leadership practices (Zhu & Engels, 2014), and leadership that is considerate of the faculty member needs including motivating them to pursue the common goals of the university (Ngirwa, Euwema, Babygegeya, & Stouten, 2014; Wingrove, 2015; Zhu & Engels, 2014).

Moreover, the Country's Economy, Legal System and University-Industry linkages are grouped into a factor, which includes specific aspects of the university's ability to secure projects for students to have hands-on real work practices and the practice of academia to invite experts from the industry to share experiences with students (Lee, Blackwell, Drake & Moran, 2014; Vaaland, & Ishengoma, 2016) and economic (Singh, 2011) and policy issues of the country (Etshim, 2017). Although the university's ability to make linkages to the industry may be perceived as an internal aspect of practice, that depends largely on the readiness of the industry practitioners to share and collaborate with the academia.

Lastly, the EFA identifies political influence as a factor of its own. This was one of the components that many participants least favored as a factor that influences instructional leadership. Altogether, from a common practice of any public institution, political influence is pervasive.

Conclusions

The results of this study have two direct implications for instructional leaders in universities in Tanzania and elsewhere in similar contexts. For the internal factors, the instructional leaders need to act on. For the external factors the instructional leaders need to decide on avoidance strategies. The following are action implications for each of the significant factors in this study. This study has been able to establish the factors influencing IL through the EFA. Further study is recommended in the same population to use these factors to explain success or failure in IL, or may use Confirmatory Factor analysis (CFA) to confirm the factors.

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